

**Land at Rush Green Road (Land East of  
Tanyard Farm)**  
Technical Appendix

**Peel Holdings (Management) Ltd**

June 2019



THE  
ENVIRONMENT  
PARTNERSHIP

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# LAND OFF RUSH GREEN ROAD LYMM PRELIMINARY ECOLOGICAL ASSESSMENT

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## **APPENDICES**

- APPENDIX A: Proposed Development
- APPENDIX B: Desk Study
- APPENDIX C: Target Notes

## **DRAWING**

G6929.01.005 Phase 1 Habitat Plan

## Executive Summary

- 1.1 TEP was commissioned by Peel Land and Property (Peel) in May 2018 to carry out a Preliminary ecological assessment of a parcel of land known as Land off Rush Green Road, Lymm, to inform release of this site for development as part of the new Warrington Local Plan. Based on the findings of this report there are no overriding ecological reasons that this site cannot be sustainably developed.
- 1.2 The site is located off Rush Green Road in Lymm, Warrington. It is composed of a number of fields separated by hedgerows and woodland blocks. Within the area not subject to survey there is a band of commercial development in the centre of the site consisting of buildings and areas of hardstanding.
- 1.3 The site has poor connectivity to the wider area as it is surrounded by residential development on three sides. However, the Bridgewater Canal does provide connectivity to the wider area for more mobile species.
- 1.4 A constraints and opportunities report was produced by TEP for this site in September 2017 and also included an extended Phase 1 Habitat Survey and desktop assessment. This Preliminary Ecological Assessment is based on the findings of those surveys.
- 1.5 No impacts are predicted on any statutory sites of nature conservation value, but there may be indirect impacts on local wildlife sites within 1km of the site through increased public pressure for amenity use and dog walking. To avoid this, suitable walking routes and public open space has been included within the development proposals.
- 1.6 An Arboricultural report has been produced by TEP. Recommendations made in this report will be adhered to throughout development to ensure retained trees, hedgerows and woodland are suitably protected. Woodland, hedgerows and mature trees will be retained, where possible, with any unavoidable losses mitigated through the creation of replacement habitat on site.
- 1.7 Himalayan balsam and Japanese knotweed are present in the site. A management plan will be produced detailing measures required to prevent their spread during development.
- 1.8 Large areas of the site have not been physically accessed for survey, but will be subject to a detailed extended Phase 1 Habitat Survey prior to submission of a planning application to confirm the habitats present and their potential to support any protected species. This will include an assessment of any buildings and trees for their potential to support roosting bats. Any species specific surveys identified as being required during the update will be undertaken in line with current approved guidance.
- 1.9 The site offers foraging and commuting potential to local bat species. Further survey will be undertaken to determine the use of the site by foraging, commuting and roosting bats. Should bats be identified and are likely to be impacted by development, mitigation measures and/or a licence from Natural England may be required. It is envisaged that should any mitigation be required, there is adequate space to accommodate this within the site boundaries.

- 1.10 There is one pond in the south west corner of the site and there appears to be another adjacent to the site boundary in the east. These will be subject to further detailed survey to confirm the presence or absence of great crested newts. If great crested newts are identified on site, it is likely a licence will be required from Natural England. It is envisaged that should any mitigation be required, there is adequate space to accommodate this within the site boundaries.
- 1.11 The habitats present on site are suitable to support nesting birds. If vegetation clearance cannot be undertaken outside the nesting bird season (March - August inclusive) checks must first be undertaken by a suitably qualified ecologist.
- 1.12 A Reasonable Avoidance Method Statement will be produced detailing how harm to hedgehog will be avoided during works.
- 1.13 Biodiversity enhancement measures suitable for this site are set out in Section 6.22.

## 1.0 Introduction

- 1.1 TEP was commissioned by Peel in April 2018 to carry out a preliminary ecological assessment of Land of Rush Green Road, Lymm to inform potential future residential development of the site.
- 1.2 Warrington Council is currently undertaking a review of their local plan. As part of this there has been a call for sites which are capable of supporting new residential development. Peel considers that this site would represent a sustainable location for residential development, capable of making a very significant contribution to meeting the housing needs of Warrington over the emerging plan period.
- 1.3 TEP undertook a constraints and opportunities assessment for this site in September 2017 (Ref: 6612.04.001). This included an extended Phase 1 Habitat Survey and desk based assessment. An Arboricultural Constraints report has also been produced for the site (TEP Ref: 6929.02.007) and should be read in conjunction with this report. Site proposals are included at Appendix A. The assessment has been informed by the following surveys:
  - Desk study;
  - Extended Phase 1 habitat survey; and
  - Ground-based inspection of trees for bat roost potential.
- 1.4 The objectives of this assessment are to:
  - Describe the existing vegetation and give an overview of the habitats present;
  - Identify any features of conservation value such as designated sites and protected or notable habitats and species within the site or the wider zone of influence;
  - Advise on further survey or mitigation requirements that may be needed to inform the evolving proposal; and
  - Outline opportunities for biodiversity enhancement in line with the requirements of the National Planning Policy Framework.

## 2.0 Site Overview

- 2.1 The site is located off Rush Green Road in Lymm, Warrington. It is composed of a number of fields separated by hedgerows and woodland. There are small woodland blocks present in the site and a band of commercial development in the centre of the site with buildings and areas of hardstanding.
- 2.2 The site is located directly south of the village of Rush Green and is bounded to the south by the Bridgewater Canal. The wider area is made up of residential development and farmland.



Figure 1. Site Location Plan (Contains Ordnance Survey data © Crown copyright and database right 2018).



## 3.0 Methods

### Desk Study

- 3.1 Information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 1km minimum radius of the site (distances as specified in table), was gathered from the sources listed in Table 1. Relevant policies from the local plan(s) relating to biodiversity were also identified (Table 1).

*Table 1. Desk Study Information Sources*

| Source                             | Nature of Information  |
|------------------------------------|--|
| MAGIC Map <sup>1</sup>             | Statutory protected sites and priority habitats to 1km from the site boundary, with international sites to 10km.                   |
| Local Environmental Records Centre | Local wildlife sites and citations, species records to 1km from the site boundary.   |
| Local Plan                         | Any planning policy allocations on the site. Relevant biodiversity policies, local wildlife site designations, wildlife corridors. |
| Local Biodiversity Action Plan     | Local habitat and species action plans   |

#### Limitations

- 3.2 Species records can provide a useful indication of the species present within the search area, although the absence of a given species from the dataset cannot be taken to represent actual absence.

### Extended Phase 1 Habitat Survey

- 3.3 A Phase 1 Habitat Survey was completed by TEP senior ecologist Ian Holland in September 2017 using the standard JNCC Phase 1 Habitat assessment method (2010)<sup>2</sup>. This method records the habitat types present in and immediately surrounding the site, based on the JNCC descriptions. Plant species are identified in accordance with Stace (2010)<sup>3</sup> and recorded as target notes using the DAFOR<sup>4</sup> scale. An additional area of the site was also surveyed by TEP ecologist Damian Young in June 2018.

<sup>1</sup> Multi-Agency Geographic Information for the Countryside - Searchable mapping website

- 3.4 The survey method was extended through the additional recording of specific features indicating the presence, or potential presence, of protected species or other species of nature conservation significance, including invasive species, in accordance with Guidelines for Preliminary Baseline Ecological Appraisal (CIEEM, 2013<sup>5</sup>).

#### Limitations

- 3.5 Both site surveys were undertaken during the optimum time period of April to October. However, several areas of the site could not be physically accessed at the time of the surveys, so the habitats and potential for protected species in these areas has been assessed through interpretation of aerial photography only. However, as the majority of the site was surveyed, this limitation is not considered to significantly affect the findings of this report. These areas will be surveyed prior to submission of a planning application.

### **Bats**

#### Ground-based Inspection of Trees

- 3.6 A ground-based inspection of trees was carried out alongside the Phase 1 Habitat Survey, looking for signs of bat activity and features suitable for roosting in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) (Collins, 2016)<sup>2</sup>.
- 3.7 Potential roost features (PRF) include rot holes, splits, snags and flaking or lifted bark. Ivy cover can be suitable for roosting, for example, where the stems are overlapping and matted to form a crevice feature beneath. Ivy cover that is not sufficiently established to offer roosting opportunities, but which may mask other suitable features on a tree, is noted separately as a potential constraint.
- 3.8 Each tree was then categorised, based on the findings of the inspection. In parallel with this, the proposed working areas were considered for their value to support foraging and dispersal by bats, taking into account the habitats present, their position in the wider landscape of the estate and connectivity to surrounding habitat features. The categories used are as listed in Table 2 (based on Collins, 2016, Table 4.1).
- 3.9 The findings of the daytime inspections are used to determine the scope of any further nocturnal surveys to ascertain whether a roost is present and, if so, the species and status.

#### Limitations

- 3.10 The survey was undertaken in September when the trees were still in leaf, this limits the surveyor's ability to see small cracks and crevices within the tree canopy.

*Table 2. Categorisation of Trees and Habitats for Bats*

<sup>2</sup> Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)

| Category of Suitability | Description of Roosting Habitat  | Description of Habitat for Foraging & Dispersal  |
|-------------------------|--|--|
| Confirmed roost         | Roosting bats or evidence thereof identified.  | Habitats known to be used by bats entering or exiting the roost, or which support associated foraging or commuting behaviour.  |
| High suitability        | A tree possessing potential roost features (PRF) that is/are suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time, due to their size, shelter, protection and surrounding habitat.   | Continuous high quality habitat that is strongly connected with the wider landscape and is likely to be used regularly by commuting or dispersing bats (e.g. river valley, vegetated stream, woodland edge, hedgerows with trees), or by foraging bats (e.g. broadleaved woodland, grazed parkland, tree-lined watercourses or ponds). |
| Moderate suitability    | A tree with PRF that could be used by bats but which is unlikely to support a roost of high conservation status with respect to roost type i.e. maternity or hibernation.<br><br>Note: Roosts of high conservation status with respect to species can only be determined once presence is confirmed. | Continuous habitat connected to the wider landscape that could be used by bats for commuting (e.g. lines of trees or scrub or linked back gardens), or foraging bats (e.g. trees, scrub, water, grassland).  |
| Low suitability         | A tree with PRF that could be used by individual bats on an opportunistic basis, but which do not offer sufficient space, shelter, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.  | Habitat that could be used by small numbers of commuting bats (e.g. a gappy hedgerow or un-vegetated stream) or foraging bats (e.g. a lone tree or small patch of scrub) but which is not well connected to the surrounding countryside.   |
| Negligible suitability  | Inspected tree with no/exceptionally poor suitability PRF.   | No, or exceptionally poor quality, habitat features on site that likely to be used by foraging, commuting or dispersing bats. A general lack of linear features and low habitat, structural or floristic diversity.  |

### **Water Vole/ Otter**

- 3.11 No detailed survey for water vole and otter was undertaken, however, any watercourses present on site were subject to a visual assessment from the banks of the watercourse for their potential to support these species.

### **Badger**

- 3.12 A detailed badger survey was undertaken alongside the Phase 1 Habitat Survey. The standard methodology as recommended by Harris, Cresswell and Jefferies (1989) was followed to complete a thorough search for evidence which would indicate the presence of badgers both on the site and locally. Evidence of badger occupation and activity sought included:

- Setts: including earth mounds, evidence of bedding and pathways between setts;
- Latrines: often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
- Prints and paths or trackways;
- Hairs caught on rough wood or fencing;
- Other evidence: including snuffle holes, feeding and playing areas and scratching posts.

### Limitations

- 3.13 As previously mentioned, several areas of the site could not be physically accessed at the time of the surveys, so it is possible that badger setts could be present in these areas. However, these will be surveyed prior to submission of a planning application.

## 4.0 Results

### Planning Context

- 4.1 Relevant extracts of local planning policy are provided in the desk study (Appendix B). In summary, the site lies within the greenbelt in the Warrington Borough Council Local Plan Core Strategy (adopted July 2014).
- 4.2 Ecological policies relevant to the site include Policy QE5 'Biodiversity and Geodiversity', which sets out the council's aim to protect and, where possible, enhance sites of recognised nature and geological value, and Policy QE6 'Environment and Amenity Protection' which states that the council will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers, or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area.

### Designated Sites

- 4.3 There are four internationally designated sites within 10km of the site boundary. These are Manchester Mosses Special Area of Conservation (SAC), which is composed of a number of different sites and is designated for its degraded raised bog habitat which is still capable of natural regeneration. The closest part of this, Risley Moss, lies approximately 4.2km northwest of the site. Rixton Clay Pits SAC which lies approximately 2.3km to the north and is designated for its populations of great crested newt. Rostherne Mere lies approximately 5.2km south east of the site. This is a Ramsar site, Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR) and is designated for its peatland mere and for its internationally and nationally important bird populations. Midland Meres and Mosses Phase 1 is located 6.5km south east of the site and is a Ramsar site designated for its diverse range of wetland habitats, rare plant species and assemblage of rare wetland invertebrates. Due to their distance from the Rush Green Road site and reasons for designation, no impacts are anticipated on any of these sites.
- 4.4 There are no statutory sites designated for wildlife within 1km of the site.
- 4.5 There are four local wildlife sites (LWS) and two regionally important geological sites (RIGS) within 1km of the site. These are:
- Lymm Dingle LWS 530m south west
  - Heatley Lake LWS 630m north east
  - Helsdale Wood and Newhey's Plantation LWS 600m south east
  - Lymm Dam Complex LWS 720m south west
  - Lymm Dam RIGS 530m south west
  - Lymm Dingle and Slitten Gorge RIGS 530m west
- 4.6 The site falls within two SSSI Impact Risk Zones (IRZ), but it is not clear exactly which site these are for as there are a number within close proximity. IRZs highlight the potential for effects on a SSSI if certain types of development are planned within a specified radius of it. Potentially relevant developments include:

- Rural Residential - Any residential development of 100 or more houses outside existing settlements/urban areas.

### Habitats and Flora

4.7 The desk study (Appendix B) identified the following notable habitats and flora. Notable habitats identified on the MAGIC Map dataset on or adjacent to site are as follows:

- Deciduous woodland is present immediately outside the southern boundary.

4.8 Records of the following flora were also returned within 1km of the site:

- Protected and notable species: Bluebell *Hyacinthoides non scripta*
- Non-native invasive species: Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera* and rhododendron *Rhododendron ponticum*.

4.9 Habitats present in and around the site are described below and illustrated in TEP drawing G6929.01.005. Target notes are provided in Appendix C. Photographs are included in this report.

#### Woodland, Trees and Scrub Habitats



Figure 2 - Woodland block on western boundary

- 4.10 A block of semi natural broadleaved woodland is present along the northern boundary (TN1). This woodland is dominated by a cherry species *Prunus sp.* Other species that occur occasionally within the woodland include field maple *Acer campestre*, silver birch *Betula pendula*, dogwood *Cornus sanguinea*, Hazel *Corylus avellana* and hawthorn *Crataegus monogyna*. This habitat qualifies as a S41 habitat of principal importance.
- 4.11 In the centre of the site is an area of mature plantation broad leaved woodland (TN4) growing on the side of an embankment. This is dominated by ash *Fraxinus excelsior* with abundant silver birch and frequently occurring beech *Fagus sylvatica* and English oak *Quercus robur*. Hazel and holly *Ilex aquifolium* occasionally occur on site.
- 4.12 Scattered trees are present across the wider site, particularly along the route of the hedgerows that cross the site and along the site boundaries. Species present include sycamore *Acer pseudoplatanus*, English oak and field maple.
- 4.13 There are several species poor hedgerows on site dominated by hawthorn (TN8). Scattered trees are occasionally present within the hedgerows.
- 4.14 There is a small patch of willow scrub *Salix sp* (TN10) in the centre of the site and along a dry ditch (TN12) and a large bank of dense bramble in the south adjacent to the canal.

#### Grassland Habitats

- 4.15 The site is dominated by fields of semi improved grassland (TN3), which are grazed by horses. The grassland is dominated by Yorkshire fog *Holcus lanatus* with abundant creeping buttercup *Ranunculus repens*. Within the grassland are areas of tall ruderal (TN2) dominated by creeping thistle *Cirsium arvense* with frequent nettle *Urtica dioica* and curled dock *Rumex crispus*.
- 4.16 There is also a large field of semi improved neutral grassland which had recently been mown prior to the field survey in June 2018 (TN7). This field contains a relatively diverse sward with frequent false oat-grass *Arrhenatherum elatius*, Yorkshire fog, and perennial rye grass *Lolium perenne*. It also contains occasional reed canary grass *Phalaris arundinacea*, meadow foxtail *Alopecurus pratensis* and soft brome *Bromus hordeaceus*. Other species recorded in the grassland include black medick *Medicago lupulina*, teasel *Dipsacus fullonum*, selfheal *Prunella vulgaris*, cut-leaved crane's-bill *Geranium dissectum* and bush vetch *Vicia sepium*.
- 4.17 Also within the grassland areas are areas of dense scrub (TN5) dominated by bramble.
- 4.18 An area in the south of the site comprises marshy grassland (TN6) dominated by soft rush *Juncus effusus*.
- 4.19 In the east of site is an area of mown amenity grassland.



*Figure 3 - Semi improved grassland with woodland beyond*

- 4.20 There are dry ditches which run north to south across the site.

#### Other Habitats

- 4.21 A large part of the site was not accessed for survey but aerial photograph indicates that there are a number of buildings and areas of hardstanding in the centre of the site. There is also a large field adjacent to this to the west which looks unmanaged, with a hedgerow between these two areas. There also appear to be small areas of trees and a large pond down in the south west corner of the site.
- 4.22 The area not physically surveyed also includes an irregular shaped field in the north of the site which looks as if it is being invaded by scrub.

#### Protected and Invasive Flora

- 4.23 Large amounts of the non-native invasive species Himalayan balsam and Japanese knotweed are present in the south of site. Himalayan balsam is also present in one of the hedgerows running north to south across the site (TN11). These species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 4.24 No protected plant species were identified.



### Connectivity with the Wider Landscape

- 4.25 The Rush Green Road site has limited connectivity to the wider area as it is surrounded by residential development to the north, west and east and the Bridgewater Canal, which forms the southern boundary of the site, will restrict movement into the site for many species. However, the canal could provide connectivity to the surrounding landscape for more mobile species such as birds and bats.

### **Fauna**

#### Bats

- 4.26 Common pipistrelle *Pipistrellus pipistrellus* have been recorded within 1km. The closest record is for pipistrelle species 800m southeast of site.
- 4.27 Trees on site were subject to a ground based inspection for their potential to support roosting bats. None of the scattered trees on site or the areas of semi-natural woodland are considered to have trees with value to roosting bats. The plantation woodland was not surveyed as it is expected to be retained.
- 4.28 There are also areas of woodland and trees in sections of the site which were not physically accessed for survey, as well as a number of buildings. It is therefore possible these areas could contain trees or buildings with some roosting potential.
- 4.29 The site offers moderate foraging and commuting potential along the hedgerows, areas of woodland and the canal to the south of the site.

#### Amphibians

- 4.30 There are no records of amphibians within 1km of the site.
- 4.31 There is a pond in the south west of the site which may be suitable to support breeding amphibians. There also appears to be another pond directly adjacent to the site boundary in the east next to Oughtrington Community Primary School. There are also sections of habitat present on site which will offer foraging and hibernation potential.

#### Otter and water vole

- 4.32 No records of otter have been returned in the desktop study, but there are records of water vole within 1km of the site. However, the location of these records do not have habitat connections to the site.
- 4.33 The ditches on site were dry, therefore are unsuitable for both water vole and otter. The adjacent canal is unsuitable for both species due to the reinforced banks, however the watercourse may be used for commuting and foraging otter.

#### Badger

- 4.34 There are several records of badger *Meles meles* within 1km of the site, but these are to the north and largely associated with the railway line with no habitat connections to the site.

- 4.35 No evidence of badger activity was observed on site, but suitable sett excavation habitat is present in the woodland in centre of the site and the dense scrub/semi-improved grassland to the west, which is less disturbed. Fields on site provide suitable foraging habitat, but possible foraging evidence was obscured by dog walking activity and grazing horses. However, the site is isolated from any large areas of woodland by residential development, roads and the canal to the south.

#### Birds

- 4.36 Several bird records have been recorded within 1km of site including birds listed under Birds of Conservation Concern and S41 priority species. Full details of bird species within 1km are presented in Appendix B.
- 4.37 The trees, scrub, hedgerows and woodland are likely to support a range of common nesting species. The grassland may also support ground nesting species, although regular disturbance by dog walkers and horses makes this less likely. The grassland fields may also support wintering bird species, although again this is considered less likely due to disturbance.

#### Other Fauna

- 4.38 No records of reptiles were returned within 1km. Although the site contains some suitable habitat for reptiles, these areas are small in size and the site is largely isolated from other suitable habitats, so reptiles are considered unlikely to be present.
- 4.39 Records of hedgehog (S41) were returned within 1km of the site and the site contains suitable habitat for this species, which is frequently associated with residential gardens.

## 5.0 Discussion and Conclusions

- 5.1 This section discusses the potential impacts on ecological receptors associated with the proposed development plan (Appendix A). Consideration is given to the 'mitigation hierarchy', i.e. that impacts are first avoided or, where this is not practicable, mitigated and, as a final resort, compensated (off-set).
- 5.2 The proposed development, as shown in the illustrative masterplan (Ref: 630DD-16A) includes areas of residential development across the site, separated by retained and enhanced hedgerows and tree lines with areas of green open space to the south and in the west of site.

### Designated Sites

- 5.3 There are four internationally designated sites within 10km of the site boundary but, due to their distance from the site and reasons for designation, no impacts on these sites are predicted. No statutory sites are located within 1km of the Rush Green Road site.
- 5.4 There are four local wildlife sites within 1km of the site boundary, and two regionally important geological sites. However, due to their distance from the site and lack of direct habitat connections no direct impacts on any of these sites are predicted. To prevent increased public pressure on the sites for amenity use and for dog walking large areas of Public Open Space (POS) and footpaths have been included across the site.
- 5.5 The site lies within a SSSI IRZ which highlights residential developments of 100 or more houses outside existing settlements/urban areas as of potential concern. However, the site is surrounded by residential development to the north, west and east, with residential areas of Lymm further to the south, so is unlikely to be considered outside existing settlements/urban areas, so this is not considered relevant in this instance.

### Habitats and Flora

- 5.6 The habitats of highest importance on site are the blocks of deciduous woodland and the hedgerows. These are all S41 habitats of principal importance and are to be retained throughout development as shown in the proposals at Appendix A. A small section of hedgerow is to be removed to allow access to the site, however this loss will be mitigated through the creation of new woodland and hedgerow planting on site.
- 5.7 There are a number of scattered trees across the site which are also of value and should be retained, where possible.
- 5.8 The Bridgewater Canal runs along the southern site boundary. Measures will be put in place within the Construction Environmental Management Plan (CEMP) to prevent any impacts on this watercourse from on-site pollution.

- 5.9 The semi-improved neutral grassland in the centre of the site at TN7 is relatively diverse and could provide foraging opportunities for a variety of common and widespread invertebrates. The large field in the west of the site has not been physically accessed for survey and may also be of value to a variety of wildlife. This area will be fully surveyed prior to submission of a planning application.
- 5.10 Himalayan balsam and Japanese knotweed have both been recorded on site. A management plan for the removal of these species will be produced.
- 5.11 No protected plant species were noted on site.
- 5.12 As large areas of the site were not accessed for survey, there may be other invasive species or protected plants within these areas. Areas not previously accessed will all be subject to a detailed Phase 1 Habitat Survey prior to submission of a planning application.

## **Fauna**

### Bats

- 5.13 All British bats are European protected species, afforded full protection under the Conservation of Habitats & Species Regulations 2017 and partial protection under the Wildlife and Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time).
- 5.14 Although no trees or buildings within the areas of the site surveyed were found to have potential to support roosting bats, there are large areas of the site which were not accessed and which contain trees and buildings. If any trees or buildings in these areas are to be affected by the development proposals, they will be subject to a full assessment to confirm their suitability to roosting bats. If considered suitable, further survey will be undertaken as discussed in Section 7.0.
- 5.15 The trees, hedgerows and woodland within the site, and the Bridgewater Canal along the southern boundary, offer foraging and commuting potential for bats. Bat activity surveys will be undertaken to determine the use of the site by the local bat population as discussed in Section 7.0.

### Amphibians

- 5.16 Great crested newts (GCN) and their habitats are protected under the Conservation of Habitats & Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).
- 5.17 Although no records of any amphibians were returned within 1km of the site, there is a pond in the south west corner of the site and there appears to be another adjacent to the boundary in the east. The site contains suitable foraging and refuge habitat for amphibians so survey of these ponds will be undertaken to determine the presence or absence of GCN as discussed in Section 7.0. Common toad may also be present within the pond.

### Badger

- 5.18 Badgers are fully protected under The Protection of Badgers Act 1992. No evidence of badger was observed on site but there are large areas of the site not physically accessed for survey, with the site containing habitat suitable for sett construction and foraging. A badger survey of the entire site will be undertaken prior to submission of a planning application.

### Birds

- 5.19 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young. This is a risk if any vegetation clearance, including tree lopping is carried out in the nesting period (generally considered to be between March to August inclusive, although some species nest outside this period).
- 5.20 The site contains habitat suitable to support wintering bird species, although due to high levels of disturbance it may not be suitable. Further survey may be required for wintering birds and for breeding birds if the site is confirmed to be of potential value to this group.

### Other

- 5.21 The site has suitability to support hedgehog and there are records of this species within 1km. Reasonable avoidance measures will be undertaken to ensure no negative impacts on this species during site clearance works.

## 6.0 Recommendations

- 6.1 This section sets out appropriate recommendations for impact avoidance, mitigation and enhancement. Details of further surveys are also described, where relevant.
- 6.2 The site is currently being considered for release in the new Warrington Local Plan. This information relates to further survey, mitigation, avoidance and enhancement measures required should the site be taken forward for a detailed planning application.
- 6.3 These recommendations are based on the existing masterplan shown in Appendix A (Ref: 630DD-16A). This masterplan includes areas of residential development across the site, separated by retained and enhanced hedgerows and tree lines with areas of green open space to the south and in the west of site which offer opportunities for ecological mitigation and enhancement.

### **Designated Sites**

- 6.4 There are several locally designated sites within 1km of the site. No direct impacts are predicted on these sites. To prevent increased public pressure on the sites for amenity use and for dog walking, suitable green walkways and areas of public open space have been incorporated into the new development at Rush Green.

### **Habitats and Flora**

- 6.5 The habitats of highest importance on site are the blocks of deciduous woodland and the hedgerows. The majority of these habitats are to be retained during development, although a site entrance will be created into the site through the semi-natural woodland in the north of the site. The loss of this small section of woodland will be mitigated through the creation of new species rich native hedgerow and woodland within the site boundary equal to or greater than the area to be lost.
- 6.6 Measures will be provided within the CEMP for the site to prevent any potential impacts on the Bridgewater Canal from on-site runoff, wind and water borne dust/silt or other pollutants and will detail measures required to prevent any light spill onto the canal which may affect crepuscular species.
- 6.7 An Arboricultural Report has been produced by TEP to ensure woodland and scattered mature trees to be retained are suitably protected throughout the development process. All recommendations made in this report will be adhered to during development. This will also confirm if there are any implications relating to TPOs on the site.

### **Invasive Species**

- 6.8 Himalayan balsam and Japanese knotweed have been recorded within the site. A site specific management plan will be produced detailing the management and removal of these species prior to development.

## **Bats**

- 6.9 There are a number of tree lines and hedgerows across the site and the Bridgewater Canal runs along the southern boundary. Further survey will be undertaken prior to development to determine if these are important foraging and commuting routes for bats.
- 6.10 The habitats on site have moderate suitability to support bats. Therefore, one dusk or dawn transect survey visit per month will be undertaken (April to October) including at least one survey incorporating both dusk and dawn within a 24hr period. Static monitoring will also be required at two locations per transect and recording must continue for five consecutive nights in suitable weather conditions each month.
- 6.11 If important bat foraging and commuting routes are identified on site a detailed mitigation strategy will be produced prior to development. This will include details on retention of important habitats, creation of suitable mitigation measures and details on a suitable lighting strategy for the site.
- 6.12 Although no trees or buildings were found to have potential to support roosting bats, there are large areas of the site which have not been accessed for survey. If any trees or buildings in these areas will be affected by the proposals, further survey will be undertaken to confirm if they have any roosting potential. In the case of buildings, this would initially take the form of an external and internal survey, while trees would be subject to a ground based assessment. Depending on the findings, dusk emergence / dawn re-entry surveys may be required.

## **Great Crested Newt**

- 6.13 There is one pond in the south western corner of the site and there appears to be another adjacent to the site boundary in the east. These will be subject to further survey prior to submission of a planning application. Initially eDNA assessment will be undertaken. This involves water samples being collected from the pond by a suitably licensed ecologist and sent to a lab for testing. This survey would confirm the presence or absence of GCN. This survey can only be undertaken between 15th April and 30th June.
- 6.14 Should the eDNA analysis confirm the presence of GCN, then traditional surveys involving bottle trapping, egg searching and torchlight survey will be undertaken. A total of six surveys are required across April to June to confirm the population size, with three surveys during the peak season of mid-April to mid-May.
- 6.15 If GCN are found to be present on site a licence would be required from Natural England to enable works. There have recently been a number of new policies introduced by Natural England in relation to GCN mitigation. The most appropriate method for mitigating impacts on newts on site should be reviewed at the time of submittal for planning.
- 6.16 It is also possible that common toad and other common amphibians could be present on site. As part of the CEMP a toad Reasonable Avoidance Method Statement will be produced to prevent harm to this species during site clearance works.

## **Badger**

- 6.17 No badger sett was identified on site. However badgers are highly transient, and large areas of the site were not physically accessed for survey. Therefore prior to submission of a planning application, an updated survey to confirm whether badgers are using the site will be undertaken. No development should take place within 30m of a badger sett.
- 6.18 If an active badger sett is confirmed on site, or within 30m of works, it may need to be closed under licence from Natural England. Further surveys would be required to inform the licence application.

## **Birds**

- 6.19 To avoid adverse impact on birds, vegetation clearance, including areas of grassland if suitable for ground nesting species, should be completed outside of the nesting period (typically taken to be March to August inclusive). Where this is not practicable, a nesting bird check must be carried out by a suitably qualified ecologist a maximum of 24 hours in advance of works to confirm no active nests are present. In the event that an active nest is identified, works within the surrounding area (radius dependent on species and context) must halt until the chicks have fledged.
- 6.20 Given the presence of open grass fields and proximity to the Bridgewater Canal the site is determined to be suitable for supporting wintering bird species, although its value to this group may be reduced due to regular disturbance by dog walkers. A full winter bird and breeding bird survey may be required on this site prior to submittal of a detailed planning application. This will be confirmed following an initial assessment by a suitably qualified ornithologist. If required, winter bird surveys involve a total of five surveys across September to April with breeding bird surveys required April to June. Surveys will cover the entire site as well as land within 500m of the site. Each survey will take place for one hour either side of high tide, when birds are more likely to be feeding/roosting on farmland.
- 6.21 Should an important population of wintering birds be identified on site then mitigation will be required. It is unlikely that suitable space will be present on site to support mitigation. Therefore, suitable land within close proximity to the site would need to be identified for mitigation and would need to be managed to support the bird species identified on site.

## **Hedgehog**

- 6.22 There is potential for hedgehog to use this site. A Reasonable Avoidance Method Statement (RAMS) will be produced to ensure that there are no negative impacts on this species during site clearance works.

## **Biodiversity Enhancement**

- 6.23 Potential biodiversity enhancement measures which could be implemented on the site include:
- Installing a selection of bird boxes on the site will enhance nesting opportunities for a range of birds.



## **APPENDIX A: Proposed Development**

**KEY:**

-  Site Boundary
-  Proposed safeguarded land / Green wedge
-  Existing woodland/trees
-  Proposed woodland/trees
-  Proposed open space
-  Proposed development cells
-  Proposed access
-  Potential Emergency Access
-  Potential pedestrian connections to surrounding footpaths and open space
-  Proposed main road
-  Proposed secondary road
-  Proposed private drive
-  Existing Public Right of Way
-  Proposed footpath network

NB: Masterplan subject to change following detailed survey work.



**een Road  
Lymm, Warrington**

Plan period illustration masterplan

Drwg No: 630DD-15E  
Drawn by: AH  
Rev by: EM  
QM Status: Checked  
Scale: NTS @ A3

Date: 19.09.17  
Checker: CAW  
Rev checker: SR  
Product Status: Issue



Area Measures:

|                            |          |
|----------------------------|----------|
| Total site area:           | 14.99 ha |
| Proposed safeguarded land: | 7.87 ha  |
| Other (existing housing):  | 0.54 ha  |
| Developable area:          | 3.72 ha  |
| Spine road:                | 0.67 ha  |
| Green infrastructure:      | 2.19 ha  |

This site could deliver up to 112 units @ 30 dwellings per hectare.

## **APPENDIX B: Desk Study**

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**Desk Based Ecology Assessment  
Land off Rush Green Road, Warrington (WA13 9QY)  
Approximate Central Grid Reference: SJ 69182 87578**

## **Contents**

- **Site location plan**
- **Extracts of relevant planning policies from local plan**
- **Local site designations**
- **Local species records**
- **National site designations**
- **Habitat inventory records**


## Site location plan



Contains Ordnance Survey data © Crown copyright and database right 2017

## Extract of Warrington Borough Council Local Plan (adopted July 2014) – Proposals map and supporting key



 Site location

**Local Plan Core Strategy** ✓

- LPCS Area Boundaries
- LPCS CC1 Inset and Green Belt Settlements
  - Region
  - Region
- LPCS CC3 Walton Hall Estate
- LPCS CS5 OSS Green Belt
- LPCS CS5 Overall Spatial Strategy Green Belt
- LPCS CS6 Strategic Green Links
- LPCS CS7 Strategic Location The Town Centre
- LPCS CS8 Strategic Proposal Omega and Lingley Mere
- LPCS CS9 Strategic Location Inner Warrington
- LPCS CS11 Strategic Opportunity Port Warrington
- LPCS IW2 Victoria Park
- LPCS MP3 Active Travel Greenway Network
- LPCS MP6 Transport Infrastructure Safeguarded Schemes
- LPCS MP6 Transport Infrastructure Safeguarded Schemes
- LPCS PV1 Development in Existing Employment Areas
- LPCS PV2 Fiddlers Ferry
- LPCS PV4 Primary Shopping Area
- LPCS QE5 European Sites International Importance
- LPCS QE5 Local Nature Reserves
- LPCS QE5 Local Wildlife Sites

- LPCS QE5 SSSIs
- LPCS QE8 Ancient Monuments
- LPCS QE8 Archaeological Importance
- LPCS QE8 Conservation Areas
- LPCS SN4 Hierarchy of Centres
  - Point
  - Point
  - Point
  - Region
- LPCS SW1 Stockton Heath District Centre
- LPCS Trunk Roads and Primary Routes
- LPCS WW1 Chapelford Urban Village

**Conservation Areas** ✓

- Conservation Areas
  - Region
  - Region

**Tree Preservation Orders** ✓

- Active
  - Region
  - Region
  - Region
  - Region
  - Region
  - Region

## Extracts of relevant planning policies and supplementary planning guidance

### Policy CS 1

#### Overall Spatial Strategy - Delivering Sustainable Development

Throughout the borough, development proposals that are sustainable will be welcomed and approved without delay.

To be sustainable, development must accord with national and local planning policy frameworks, taking into account other material considerations, and must, in no particular order, have regard to:

- the planned provision made for economic and housing growth;
- the requirement to provide for recognised and identified development needs;
- the priority afforded to the protection of the Green Belt and the character of the countryside;
- the priority afforded to accommodating growth in Inner Warrington through the use of previously developed land;
- the importance of sustaining and enhancing the vitality and viability of the Town Centre and other designated centres that act as community hubs;
- the need to develop sites, services and facilities in appropriate locations accessible by public transport, walking and cycling;
- the need to make the best use of existing transport, utility, social and environmental infrastructure within existing settlements, and ensure additional provision where needed to support development;
- the need to address the causes of and be resilient to the effects of climate change;
- the need to sustain and enhance the borough's built heritage, biodiversity and geodiversity;
- the importance of prudently using resources and maximising re-use, recovery and recycling where possible;
- the need to safeguard environmental standards, public safety, and residential amenity;
- the delivery of high standards of design and construction, that have regard to local distinctiveness and energy efficiency; and
- the need to improve equality of access and opportunity.

The Council's approach will always be to work proactively with applicants jointly to find solutions which mean that proposals can accord with the development plan and be approved without delay wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise - taking into account whether:

- Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or
- Specific policies in that Framework indicate that development should be restricted.



## Policy CS 5

### Overall Spatial Strategy - Green Belt

The Council will maintain the general extent of the Green Belt for as far as can be seen ahead and at least until 2032, in recognition of its purposes:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns from merging into one another;
- to assist in safeguarding the countryside from encroachment; and
- to assist in urban regeneration by encouraging the recycling of derelict and other urban land.

The boundaries of the Green Belt in Warrington, which is contiguous with the Green Belt in Merseyside, Greater Manchester, and North Cheshire, are shown on the Policies Map.

The strategic locations and proposals set out in Policy CS2 - Quantity and Distribution of Development provide for significant growth throughout and beyond the plan period. There is therefore no need to review Strategic Green Belt boundaries during the plan period.

A minor detailed change to the approved Green Belt boundary in the Warrington Unitary Development Plan has been made at Bents Garden Centre, Glazebury.

Development Proposals within the Green Belt will be approved where they accord with relevant national policy.

## Policy CS 6

### Overall Spatial Strategy – Strategic Green Links

The Council will work with partners to develop and adopt a strategic approach to the care and management of the borough's Green Infrastructure. A key focus of these efforts will be on reinforcing, and maximising the environmental and socio-economic benefits from, those Strategic Green Links which connect the borough to the wider sub-region such as:

- The Bridgewater Canal
- The Mersey Valley;
- The River Bollin;
- Sankey Valley Park and St. Helens Canal;
- The Transpennine Trail; and
- Bold Forest Park

The Council is committed to supporting wider programmes and initiatives which seek to connect the borough's Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets including the Manchester Mosses, Mersey Forest, Walton Hall Estate and the potential significant country park in the Arpley area when landfill operations have finished and restoration is complete.

In accordance with Policy QE3 the Development Management Process will contribute to the objectives of this Policy.

### Policy QE 3

#### Green Infrastructure

The Council will work with partners to develop and adopt an integrated approach to the provision, care and management of the borough's Green Infrastructure. Joint working and the assessment of applications will be focussed on:

- protecting existing provision and the functions this performs;
- increasing the functionality of existing and planned provision especially where this helps to mitigate the causes of and addresses the impacts of climate change;
- improving the quality of existing provision, including local networks and corridors, specifically to increase its attractiveness as a sport, leisure and recreation opportunity and its value as a habitat for biodiversity;
- protecting and improving access to and connectivity between existing and planned provision to develop a continuous right of way and greenway network and integrated ecological system;
- securing new provision in order to cater for anticipated increases in demand arising from development particularly in areas where there are existing deficiencies assessed against standards set by the Council.

## Policy QE 5

### Biodiversity and Geodiversity

The Council will work with partners to protect and where possible enhance sites of recognised nature and geological value. These efforts will be guided by the principles set out in National Planning Policy and those which underpin the strategic approach to the care and management of the borough's Green Infrastructure in its widest sense.

Sites and areas recognised for their nature and geological value are shown on the Policies Map and include:

- European Sites of International Importance
- Sites of Special Scientific Interest
- Regionally Important Geological Sites
- Local Nature Reserves
- Local Wildlife Sites
- Wildlife Corridors

The specific sites covered by the above designations at the time of publication are detailed in Appendix 3.

Proposals for development which may affect **European Sites of International Importance** will be subject to the most rigorous examination in accordance with the Habitats Directive. Development or land use change not directly connected with or necessary to the management of the site and which is likely to have significant effects on the site (either individually or in combination with other plans or projects) and which would affect the integrity of the site, will not be permitted unless the Council is satisfied that;

- there is no alternative solution; and
- there are imperative reasons of over-riding public interest for the development or land use change.

Proposals for development in or likely to affect **Sites of Special Scientific Interest (SSSI)** will be subject to special scrutiny. Where such development may have an adverse effect, directly or indirectly, on the SSSI it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.

Proposals for development likely to have an adverse effect on **regionally and locally designated sites** will not be permitted unless it can be clearly demonstrated that there are reasons for the development which outweigh the need to safeguard the substantive nature conservation value of the site or feature.

Proposals for development which may adversely affect the integrity or continuity of **UK Key habitats** or other habitats of local importance, or adversely affect **EU Protected Species**, **UK Priority Species** or other species of local importance, or which are the subject of **Local Biodiversity Action Plans** will only be permitted if it can be shown that the reasons for the development clearly outweigh the need to retain the habitats or species affected and that mitigating measures can be provided which would reinstate the habitats or provide equally viable alternative refuge sites for the species affected.

All development proposals affecting protected sites, wildlife corridors, key habitats or priority species (as identified in Local Biodiversity Action Plans) should be accompanied by information proportionate to their nature conservation value including;

- a site survey where necessary to identify features of nature and geological conservation importance; an assessment of the likely impacts of the proposed development proposals for the protection and management of features identified for retention;
- an assessment of whether the reasons for the development clearly outweigh the nature conservation value of the site, area or species; and
- proposals for compensating for features damaged or destroyed during the development process

Where development is permitted, the Council will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's nature conservation interest and/or to provide appropriate compensatory measures.

## Policy QE 6

### Environment and Amenity Protection

The Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following:

- The integrity and continuity of tidal and fluvial flood defences;
- The quality of water bodies, including canals, rivers, ponds and lakes;
- Groundwater resources in terms of their quantity, quality and the ecological features they support;
- Land quality;
- Air quality;
- Noise and vibration levels and times when such disturbances are likely to occur;
- Levels of light pollution and impacts on the night sky;
- Levels of odours, fumes, dust, litter accumulation and refuse collection / storage.
- The need to respect the living conditions of existing neighbouring residential occupiers and future occupiers of new housing schemes in relation to overlooking/loss of privacy, outlook, sunlight, daylight, overshadowing, noise and disturbance;
- The effect and timing of traffic movement to, from and within the site and car parking including impacts on highway safety;
- The ability and the effect of using permitted development rights to change use within the same Use Class (as set out in the in the Town and Country Planning (General Permitted Development Order) without the need to obtain planning consent.

Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval.

Where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured.

Development proposals on land that is (or is suspected to be) affected by contamination or ground instability or has a sensitive end use must include an assessment of the extent of the issues and any possible risks. Development will only be permitted where the land is, or is made, suitable for the proposed use.

Additional guidance to support the implementation of this policy is provided in the Design and Construction and Environmental Protection Supplementary Planning Documents.

## Policy CC 1

### Inset and Green Belt Settlements

The following settlements are Inset (that is excluded) from the Green Belt:

|                |                  |
|----------------|------------------|
| Appleton Thorn | Grappenhall Heys |
| Burtonwood     | Hollins Green    |
| Croft          | Lymm             |
| Culcheth       | Oughtrington     |
| Glazebury      | Winwick          |

Within these settlements new build development, conversions and redevelopment proposals will be allowed providing they comply with national planning policy and are sustainable in terms of Policy CS1.

The following are Green Belt settlements (that is washed over) within the Green Belt:

|                     |                        |
|---------------------|------------------------|
| Broomedge           | Heatley/Heatley Heath  |
| Collins Green       | Higher Walton          |
| Cuerdley Cross      | Mee Brow/Fowley Common |
| Glazebrook          | New Lane End           |
| Grappenhall Village | Stretton               |
| Hatton              | Weaste Lane            |

Within these settlements development proposals will be subject to Green Belt policies set out in national planning policy. New build development may be appropriate where it can be demonstrated that the proposal constitutes limited infill development of an appropriate scale, design and character in that it constitutes a small break between existing development which has more affinity with the built form of the settlement as opposed to the openness of the Green Belt; unless the break contributes to the character of the settlement.

The boundaries of Inset and Green Belt villages are shown on the Policies Map.

## Policy CC 2

### Protecting the Countryside

Development proposals in the countryside which accord with Green Belt policies set out in national planning policy will be supported provided that;

- the detailed siting and design of the development relates satisfactorily to its rural setting, in terms of its scale, layout and use of materials;
- they respect local landscape character, both in terms of immediate impact, or from distant views;
- unobtrusive provision can be made for any associated servicing and parking facilities or plant, equipment and storage;
- they relate to local enterprise and farm diversification; and
- it can be demonstrated that there would be no detrimental impact on agricultural interests.

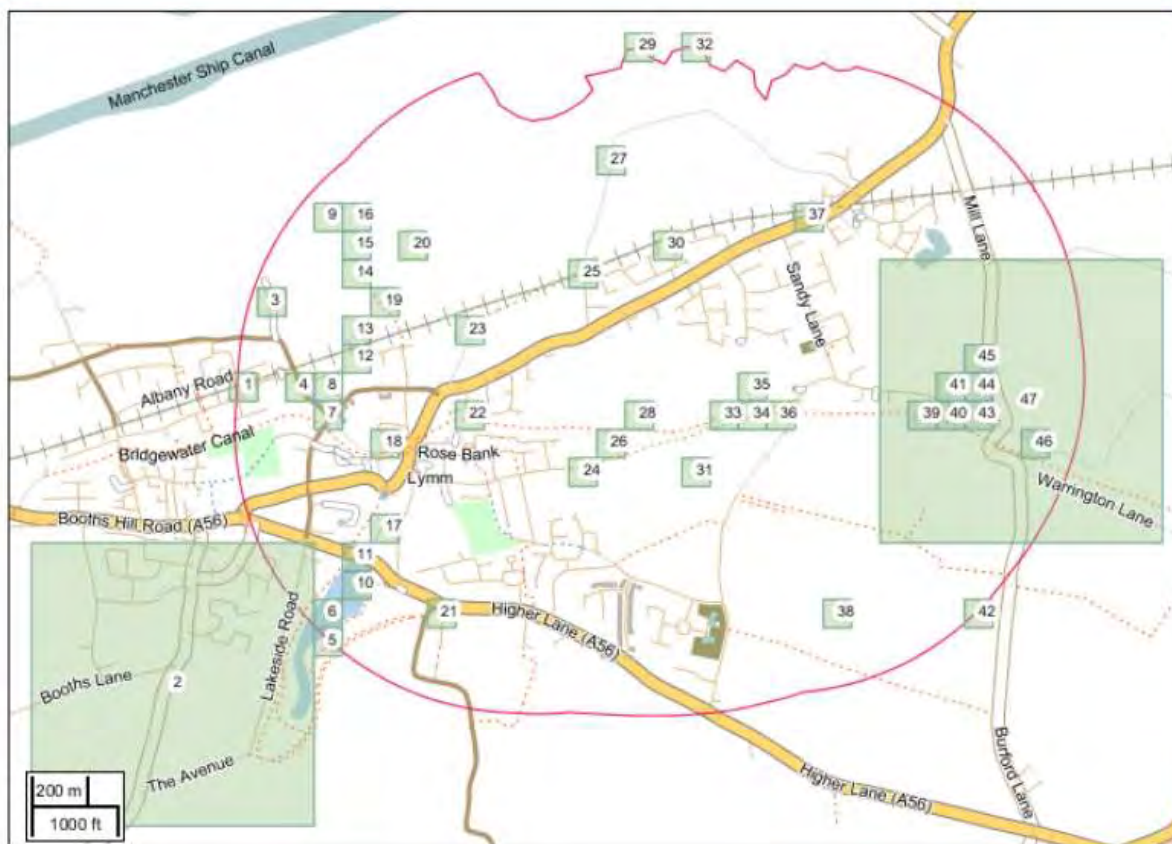
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## **Map provided by RECORD of site designations within 1km**

There are no designated sites within 1km

## Extract of species data provided by RECORD within 1km

### Map



## Species Summary Report

### Species Grid Id Summary Report

#### BIRD

| Taxon name        | Grid ref. id   |
|-------------------|--|
| Grey Wagtail      | 11 (2008)  |
| Mistle Thrush     | 3 (2008)   |
| Black-headed Gull | 6 (2014), 31 (2014), 42 (2014)                       |
| Mallard           | 5 (2014), 10 (2014), 11 (2008), 17 (2014), 18 (2014) |
| House Sparrow     | 25 (2014), 37 (2014)                                 |
| Starling          | 40 (2007)  |
| Yellowhammer      | 30 (2014)  |
| Swift             | 4 (2009), 8 (2009)                                   |

#### FLOWERING PLANT

| Taxon name                 | Grid ref. id                                    |
|----------------------------|---|
| Bluebell                   | 2 (2015)  |
| Japanese Knotweed          | 12 (2008-2015), 24 (2008), 27 (2008), 33 (2008) |
| Large-flowered Hemp-nettle | 44 (2013)                                       |
| Indian Balsam              | 2 (2015), 12 (2008), 28 (2008), 41 (2013)       |
| Rhododendron               | 2 (2015)  |
| Orange Balsam              | 3 (2008)  |

#### INSECT - TRUE FLY (DIPTERA)

| Taxon name   | Grid ref. id         |
|--------------|----------------------|
| Stiletto-fly | 29 (2008), 32 (2008) |

#### MOSS

| Taxon name            | Grid ref. id  |
|-----------------------|---|
| Freiberg's Screw-moss | 7 (2008), 22 (2008), 26 (2008), 34 (2008), 35 (2008), 36 (2008), 39 (2008), 46 (2008) |

#### TERRESTRIAL MAMMAL

| Taxon name          | Grid ref. id  |
|---------------------|---|
| European Water Vole | 3 (2008), 9 (2009), 20 (2009)                         |
| American Mink       | 14 (2009), 15 (2009), 16 (2009), 17 (2007), 19 (2009) |
| Common Pipistrelle  | 38 (2014)   |



|                        |   |
|------------------------|---|
| Eurasian Badger        | 1 (2010), 12 (2015), 13 (2011), 43 (2011), 45 (2013), 47 (2016) |
| West European Hedgehog | 21 (2015)   |
| Polecat                | 23 (2007)   |

# Locally protected sites provided by RECORD within 1km

Local Wildlife Sites

Lymm Dingle / WA021

Map



|               |   |
|---------------|---|
| Site name     | Lymm Dingle                                 |
| Site code     | WA021                                       |
| Authority     | Warrington Local Wildlife Sites Partnership |
| Site centroid | SJ6819587131                                |

Heatley Lake / WA014

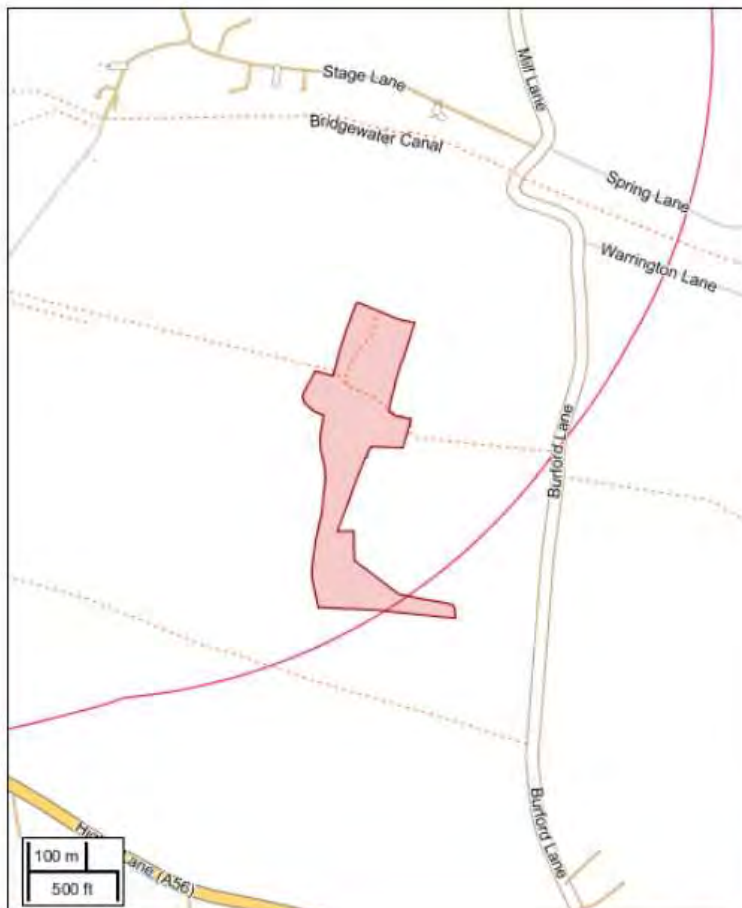
Map



|               |   |
|---------------|---|
| Site name     | Heatley Lake                                |
| Site code     | WA014                                       |
| Authority     | Warrington Local Wildlife Sites Partnership |
| Site centroid | SJ7018388082                                |

*Helsdale Wood and Newhey's Plantation / WA015*

Map



|                      |   |
|----------------------|---|
| <b>Site name</b>     | Helsdale Wood and Newhey's Plantation       |
| <b>Site code</b>     | WA015                                       |
| <b>Authority</b>     | Warrington Local Wildlife Sites Partnership |
| <b>Site centroid</b> | SJ7012686883                                |

*Lymm Dam Complex / WA020*

Map



|                      |   |
|----------------------|---|
| <b>Site name</b>     | Lymm Dam Complex                            |
| <b>Site code</b>     | WA020                                       |
| <b>Authority</b>     | Warrington Local Wildlife Sites Partnership |
| <b>Site centroid</b> | SJ6814986497                                |

### Regionally Important Geodiversity Sites

For further information or citations for these Regionally Important Geological Sites please contact Steve Woolfall (steve.woolfall@cheshirewestandchester.gov.uk) or Cynthia Burek (c.burek@chester.ac.uk) from the Cheshire RIGS group.

### Lymm Dam / CH050

Map



|               |   |
|---------------|---|
| Site name     | Lymm Dam  |
| Site code     | CH050   |
| Authority     | Cheshire Regionally Important Geological Sites (RIGS) Committee |
| Site centroid | SJ6811786998  |

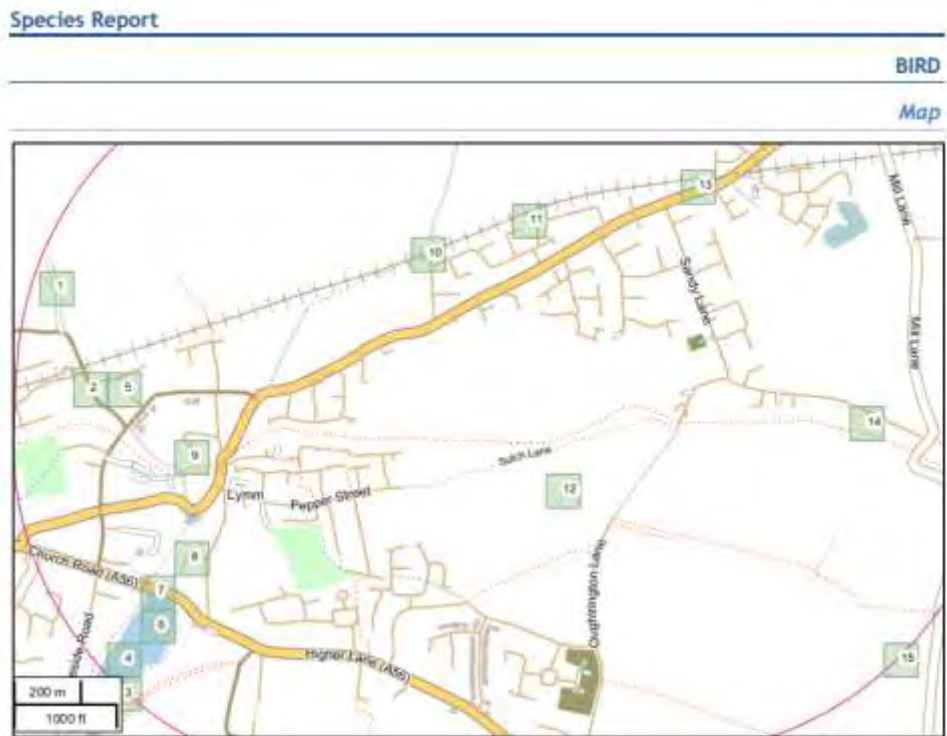
*Lymm Dingle and Slitten Gorge / CH051*

Map



|                      |   |
|----------------------|---|
| <b>Site name</b>     | Lymm Dingle and Slitten Gorge                                   |
| <b>Site code</b>     | CH051   |
| <b>Authority</b>     | Cheshire Regionally Important Geological Sites (RIGS) Committee |
| <b>Site centroid</b> | SJ6819987287  |

## Detailed species data provided by RECORD within 1km





House Sparrow (*Passer domesticus*) (10,13)

RECORD

| Location   | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|--|-----------|---------|------------|-----------|-----------|--------------|
| Trans Pennine Trail, West of the A6144, Rushgreen, Lymm    | SJ697881  | 13      | 01/03/2014 | None      | 2         | Field Record |
| Trans Pennine Trail, East of Reddish Lane, Rushgreen, Lymm | SJ689879  | 10      | 01/03/2014 | None      | Present   | Field Record |

Mallard (*Anas platyrhynchos*) (3,6,7,8,9)

RECORD

| Location   | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|--|------------|---------|------------|-----------|-----------|--------------|
| Lymm Dam, Cheshire, Bridgewater Canal, Lymm, Cheshire.       | SJ682873   | 9       | 01/03/2014 | None      | 4         | Field Record |
| Lymm Dam, Cheshire, The Dingle, North of Lymm Dam, Cheshire. | SJ682870   | 8       | 01/03/2014 | None      | 2         | Field Record |
| Lymm Dam, Lymm Dam, Cheshire.                                | SJ680866   | 3       | 01/03/2014 | None      | 4         | Field Record |
| Lymm Dam, Cheshire, Lymm Dam, Cheshire.                      | SJ681868   | 6       | 01/03/2014 | None      | 6         | Field Record |
|  | SJ68128693 | 7       | 12/08/2008 | None      | Many      | Field Record |

Black-headed Gull (*Chroicocephalus ridibundus*) (4,12,15)

RECORD

| Location   | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|--|-----------|---------|------------|-----------|-----------|--------------|
| North of St. Peter's Church, Oughtrington, Lymm, Cheshire. | SJ693872  | 12      | 01/03/2014 | None      | >100      | Field Record |
| South of Spud Wood, Oughtrington, Cheshire.                | SJ703867  | 15      | 01/03/2014 | None      | 2         | Field Record |
| Lymm Dam, Lymm Dam, Cheshire.                              | SJ680867  | 4       | 01/03/2014 | None      | 12        | Field Record |

Mistle Thrush (*Turdus viscivorus*) (1)

RECORD

| Location | Grid ref. | Grid ID | Date | Sex/Stage | Abundance | Record type |
|----------|-----------|---------|------|-----------|-----------|-------------|
|----------|-----------|---------|------|-----------|-----------|-------------|

|            |   |            |      |         |              |
|------------|---|------------|------|---------|--------------|
| SJ67828786 | 1 | 16/08/2008 | None | Present | Field Record |
|------------|---|------------|------|---------|--------------|

Grey Wagtail (*Motacilla cinerea*) (7)

RECORD

| Location | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|----------|------------|---------|------------|-----------|-----------|--------------|
|          | SJ68128693 | 7       | 12/08/2008 | None      | 1         | Field Record |

Swift (*Apus apus*) (2,5)

RECORD

| Location      | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|---------------|-----------|---------|------------|-----------|-----------|--------------|
| brook rd      | SJ679875  | 2       | 29/06/2009 | Adult     | 9         | Field Record |
| brook rd lymm | SJ680875  | 5       | 03/06/2009 | Adult     | 1         | Field Record |

Starling (*Sturnus vulgaris*) (14)

RECORD

| Location | Grid ref.    | Grid ID | Date | Sex/Stage | Abundance | Record type  |
|----------|--------------|---------|------|-----------|-----------|--------------|
|          | SJ7025287443 | 14      | 2007 | None      | 60        | Field Record |

Yellowhammer (*Emberiza citrinella*) (11)

RECORD

| Location   | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|--|-----------|---------|------------|-----------|-----------|--------------|
| Trans Pennine Trail, South of Reddish House, Rushgreen, Lymm | SJ692880  | 11      | 01/03/2014 | None      | 4         | Field Record |

### FLOWERING PLANT

Map



Indian Balsam (*Impatiens glandulifera*) (1,3,6,8)

RECORD

| Location                          | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|-----------------------------------|------------|---------|------------|-----------|-----------|--------------|
| Four Oaks, Compartment 1, Field 1 | SJ70288751 | 8       | 28/07/2013 | None      | Rare      | Field Record |
| Lymm Dam                          | SJ6786     | 1       | 02/05/2015 | None      | Present   | Field Record |
|                                   | SJ69108742 | 6       | 12/06/2008 | None      | Present   | Field Record |
|                                   | SJ68128765 | 3       | 16/08/2008 | None      | Present   | Field Record |

Large-flowered Hemp-nettle (*Galeopsis speciosa*) (9)

RECORD

| Location                          | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|-----------------------------------|------------|---------|------------|-----------|-----------|--------------|
| Four Oaks, Compartment 3, field 3 | SJ70368758 | 9       | 28/07/2013 | None      | Rare      | Field Record |

Japanese Knotweed (*Fallopia japonica*) (3,4,5,7)

RECORD

| Location                | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance        | Record type  |
|-------------------------|------------|---------|------------|-----------|------------------|--------------|
| On northern bank of TPT | SJ68158769 | 3       | 09/04/2015 | None      | Locally Frequent | Field Record |
|                         | SJ69478746 | 7       | 12/06/2008 | None      | Present          | Field Record |
|                         | SJ68978727 | 4       | 12/06/2008 | None      | Present          | Field Record |
|                         | SJ68128765 | 3       | 16/08/2008 | None      | Present          | Field Record |
|                         | SJ690883   | 5       | 2008       | None      | Present          | Field Record |

Bluebell (*Hyacinthoides non-scripta*) (1)

RECORD

| Location | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|----------|-----------|---------|------------|-----------|-----------|--------------|
| Lymm Dam | SJ6786    | 1       | 02/05/2015 | None      | Present   | Field Record |

Rhododendron (*Rhododendron ponticum*) (1)

RECORD

| Location | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|----------|-----------|---------|------------|-----------|-----------|--------------|
| Lymm Dam | SJ6786    | 1       | 02/05/2015 | None      | Present   | Field Record |

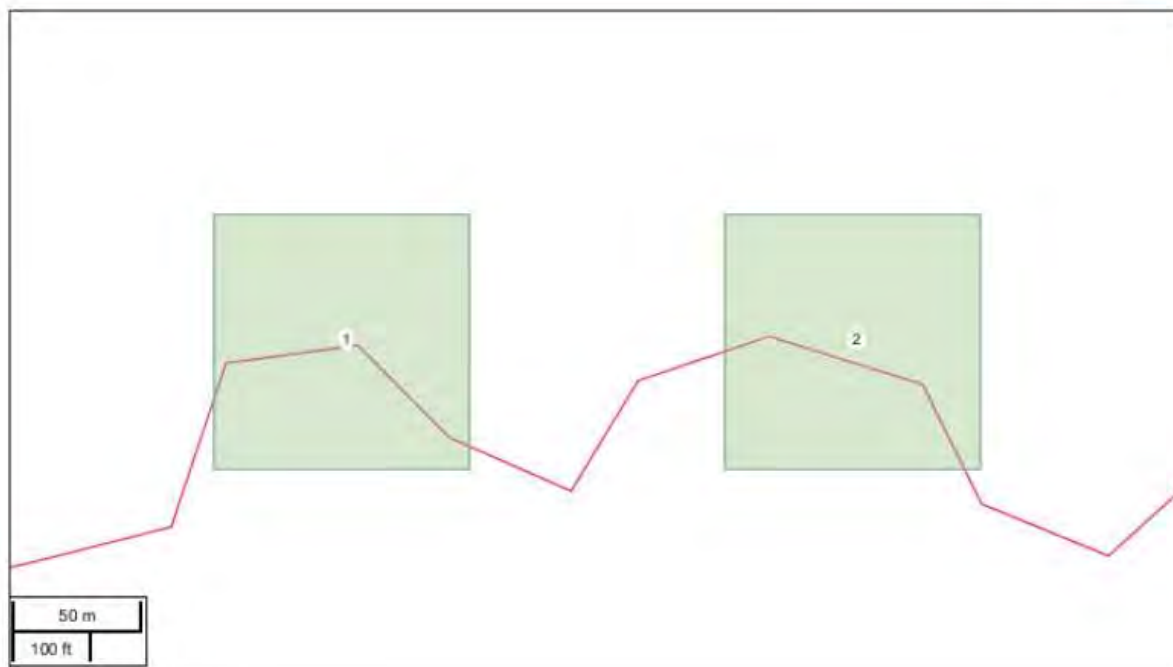
Orange Balsam (*Impatiens capensis*) (2)

RECORD

| Location | Grid ref.  | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|----------|------------|---------|------------|-----------|-----------|--------------|
|          | SJ67828786 | 2       | 16/08/2008 | None      | Present   | Field Record |

**INSECT - TRUE FLY (DIPTERA)**

*Map*



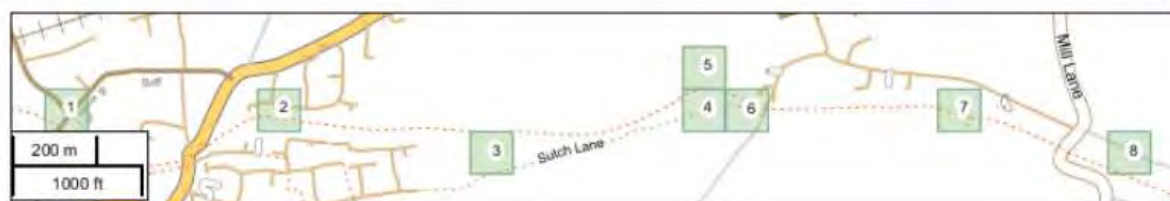
**Stiletto-fly (*Clorismia rustica*) (1,2)**

*RECORD*

| Location         | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|------------------|-----------|---------|------------|-----------|-----------|--------------|
| Reddish (site 1) | SJ691887  | 1       | 09/05/2008 | Larvae    | 4         | Field Record |
| Reddish (site 2) | SJ693887  | 2       | 09/05/2008 | Larvae    | 3         | Field Record |

**MOSS**

*Map*



Freiberg's Screw-moss (*Tortula freibergii*) (1,2,3,4,5,6,7,8)

RECORD

| Location | Grid ref.  | Grid ID | Date                  | Sex/Stage | Abundance | Record type  |
|----------|------------|---------|-----------------------|-----------|-----------|--------------|
|          | SJ70108748 | 7       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ69608749 | 6       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ69568749 | 4       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ69558749 | 4       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ69548750 | 5       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ69038739 | 3       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ68548741 | 2       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ68028740 | 1       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |
|          | SJ70518730 | 8       | 02/03/2008-13/04/2008 | None      | Present   | Field Record |

TERRESTRIAL MAMMAL

Map



**Common Pipistrelle (Pipistrellus pipistrellus) (14)**

RECORD

| Location                                       | Grid ref.    | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|--|--------------|---------|------------|-----------|-----------|--------------|
| Cherry Lane Barn, Cherry Lane, Lymm, Cheshire. | SJ6987486726 | 14      | 03/06/2014 | None      | 3         | Field Record |

**American Mink (Neovison vison) (6,7,8,9,10)**

RECORD

| Location            | Grid ref.    | Grid ID | Date       | Sex/Stage | Abundance | Record type         |
|---------------------|--------------|---------|------------|-----------|-----------|---------------------|
| Lymm Playing Fields | SJ6816488142 | 8       | 23/04/2009 | None      | 1         | Tracks/Trail        |
| Sow Brook           | SJ6814488055 | 7       | 23/04/2009 | None      | 1         | Tracks/Trail        |
| Sow Brook           | SJ6822387841 | 10      | 23/04/2009 | None      | 1         | Dung Or Other Signs |
| Sow Brook           | SJ6816487985 | 6       | 23/04/2009 | None      | 1         | Tracks/Trail        |
| Sow Brook           | SJ6816587980 | 6       | 23/04/2009 | None      | 1         | Tracks/Trail        |
| Lymm Dam            | SJ682870     | 9       | 12/04/2007 | Adult     | 1         | Field Record        |

**European Water Vole (Arvicola amphibius) (2,3,11)**

RECORD

| Location            | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type      |
|---------------------|-----------|---------|------------|-----------|-----------|------------------|
| Sow Brook           | SJ680881  | 3       | 23/04/2009 | None      | Present   | Burrow, Nesthole |
| Lymm Playing Fields | SJ683880  | 11      | 23/04/2009 | None      | Present   | Burrow, Nesthole |
| Lymm Golf Course    | SJ678878  | 2       | 01/09/2008 | None      | Present   | Field Record     |

**West European Hedgehog (Erinaceus europaeus) (12)**

RECORD

| Location       | Grid ref. | Grid ID | Date       | Sex/Stage  | Abundance | Record type  |
|----------------|-----------|---------|------------|------------|-----------|--------------|
| Crouchley Lane | SJ684867  | 12      | 17/10/2015 | Dead Adult | 1         | Dead On Road |

**Polecat (Mustela putorius) (13)**

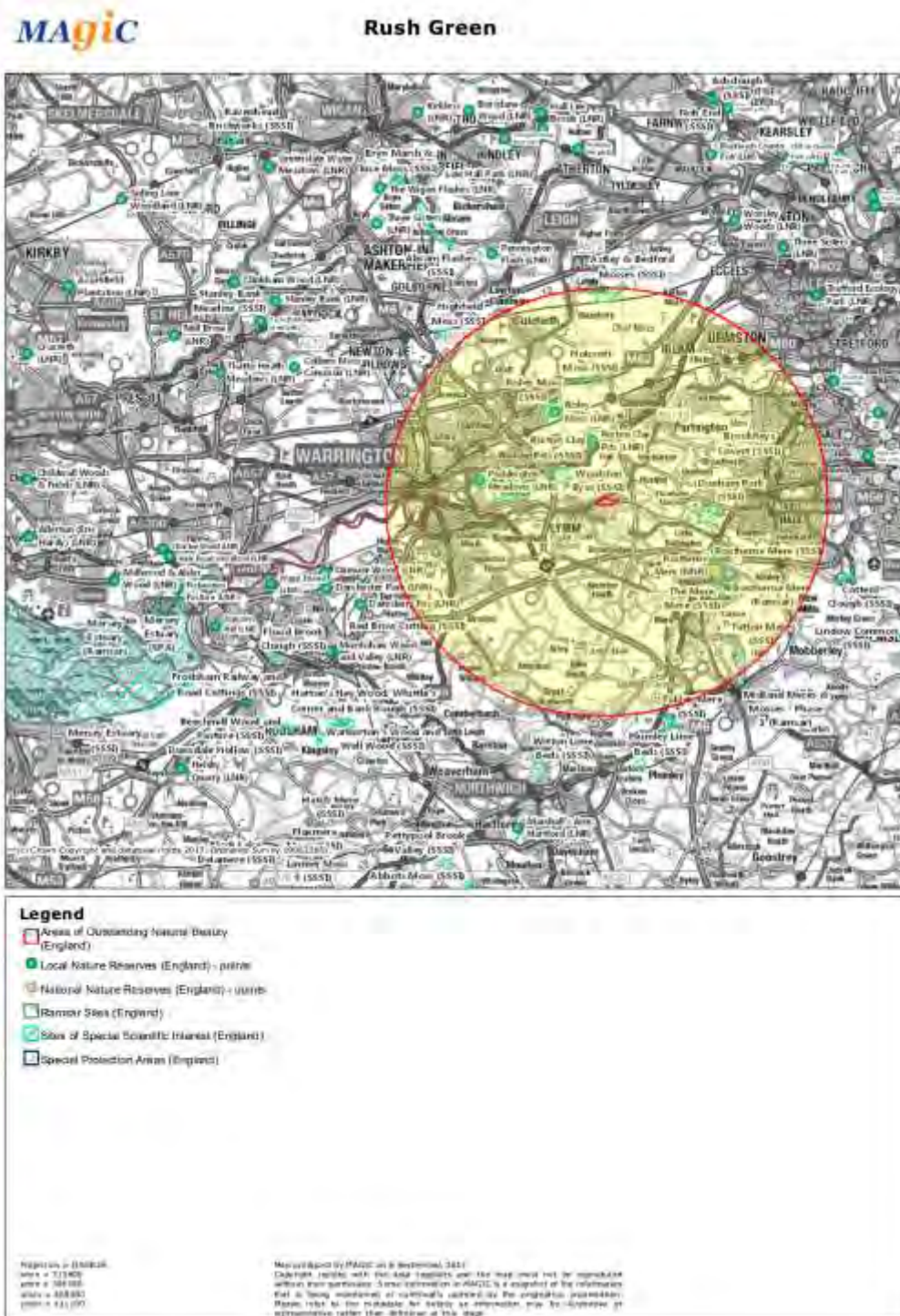
RECORD

| Location | Grid ref. | Grid ID | Date       | Sex/Stage | Abundance | Record type  |
|----------|-----------|---------|------------|-----------|-----------|--------------|
| Lymm     | SJ685877  | 13      | 08/11/2007 | None      | 1         | Field Record |

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# **MAGIC Map 10km search zone for designated wildlife sites – Map**





Site Check Report Report generated on Wed Sep 6 2017  
 You selected the location: Centroid Grid Ref: SJ692875  
 The following features have been found in your search area:

#### Local Nature Reserves (England) - points

|           |   |
|-----------|---|
| Reference | 1009103   |
| Name      | RIXTON CLAY PITS  |
| Hectares  | 33.57   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009103">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009103</a> |
| Reference | 1421783   |
| Name      | PADDINGTON MEADOWS  |
| Hectares  | 34.56   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421783">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421783</a> |
| Reference | 1009099   |
| Name      | RISLEY MOSS   |
| Hectares  | 82.42   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009099">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009099</a> |

#### Local Nature Reserves (England)

|           |   |
|-----------|---|
| Reference | 1009103   |
| Name      | RIXTON CLAY PITS  |
| Hectares  | 33.57   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009103">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009103</a> |
| Reference | 1421783   |
| Name      | PADDINGTON MEADOWS  |
| Hectares  | 34.56   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421783">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1421783</a> |
| Reference | 1009099   |
| Name      | RISLEY MOSS   |
| Hectares  | 82.42   |
| Hyperlink | <a href="http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009099">http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009099</a> |

#### National Nature Reserves (England) - points

|           |   |
|-----------|---|
| Name      | ROSTHERNE MERE  |
| Reference | 1006125   |
| Hyperlink | <a href="http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/nnr/1006125.aspx">http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/nnr/1006125.aspx</a> |
| Hectares  | 152.49  |

#### National Nature Reserves (England)

|           |   |
|-----------|---|
| Name      | ROSTHERNE MERE  |
| Reference | 1006125   |
| Hectares  | 152.49  |
| Hyperlink | <a href="http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/nnr/1006125.aspx">http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/nnr/1006125.aspx</a> |

#### Ramsar Sites (England) - points

|           |                |
|-----------|----------------|
| Name      | ROSTHERNE MERE |
| Reference | UK11060        |
| Hectares  | 79.76          |

#### Ramsar Sites (England)

|           |                                  |
|-----------|----------------------------------|
| Name      | MIDLAND MERES & MOSSES - PHASE 1 |
| Reference | UK11043                          |
| Hectares  | 513.35                           |
| Name      | ROSTHERNE MERE                   |
| Reference | UK11060                          |
| Hectares  | 79.76                            |

#### Sites of Special Scientific Interest (England) - points

|                              |   |
|------------------------------|---|
| Name                         | Brookheys Covert SSSI   |
| Reference                    | 1003798   |
| Natural England Contact      | AMY COWBURN   |
| Natural England Phone Number | 0845 600 3078   |
| Hectares                     | 2.37  |
| Citation                     | 1002793   |
| Hyperlink                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=1002793">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=1002793</a> |

|   |   |
|---|---|
| <b>Name</b>   | Dunham Park SSSI  |
| <b>Reference</b>                                      | 1003804   |
| <b>Natural England Contact</b>                        | PHIL CHESTERS   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 79.18   |
| <b>Citation</b>                                       | 1002940   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002940">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002940</a> |
| <b>Name</b>   | Woolston Eyes SSSI  |
| <b>Reference</b>                                      | 1002660   |
| <b>Natural England Contact</b>                        | AMANDA WRIGHT   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 269.82  |
| <b>Citation</b>                                       | 1000106   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1000106">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1000106</a> |
| <b>Name</b>   | The Mere, Mere SSSI   |
| <b>Reference</b>                                      | 1002272   |
| <b>Natural England Contact</b>                        | AMY COWBURN   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 19.41   |
| <b>Citation</b>                                       | 1001818   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001818">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001818</a> |
| <b>Name</b>   | Tatton Meres SSSI   |
| <b>Reference</b>                                      | 1002204   |
| <b>Natural England Contact</b>                        | RACHAEL GARNETT   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 90.31   |
| <b>Citation</b>                                       | 1003604   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003604">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003604</a> |
| <b>Name</b>   | Rostherne Mere SSSI   |
| <b>Reference</b>                                      | 1002506   |
| <b>Natural England Contact</b>                        | ROB ARDEN   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 152.49  |
| <b>Citation</b>                                       | 1003353   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003353">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003353</a> |
| <b>Name</b>   | Rixton Clay Pits SSSI   |
| <b>Reference</b>                                      | 1002021   |
| <b>Natural England Contact</b>                        | PAUL THOMAS   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 13.5  |
| <b>Citation</b>                                       | 1003514   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003514">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003514</a> |
| <b>Name</b>   | Astley & Bedford Mosses SSSI  |
| <b>Reference</b>                                      | 1003988   |
| <b>Natural England Contact</b>                        | PAUL THOMAS   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 92  |
| <b>Citation</b>                                       | 1002755   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002755">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002755</a> |
| <b>Name</b>   | Holcroft Moss SSSI  |
| <b>Reference</b>                                      | 1002331   |
| <b>Natural England Contact</b>                        | PAUL THOMAS   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 19.04   |
| <b>Citation</b>                                       | 1006461   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006461">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006461</a> |
| <b>Name</b>   | Risley Moss SSSI  |
| <b>Reference</b>                                      | 1002273   |
| <b>Natural England Contact</b>                        | PAUL THOMAS   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |
| <b>Hectares</b>                                       | 83.29   |
| <b>Citation</b>                                       | 1001838   |
| <b>Hyperlink</b>                                      | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001838">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001838</a> |
| <b>Sites of Special Scientific Interest (England)</b> |   |
| <b>Name</b>   | Brookheys Covert SSSI   |
| <b>Reference</b>                                      | 1003798   |
| <b>Natural England Contact</b>                        | AMY COWBURN   |
| <b>Natural England Phone Number</b>                   | 0845 600 3078   |

|                                     |   |
|-------------------------------------|---|
| <b>Hectares</b>                     | 2.37  |
| <b>Citation</b>                     | 1002793   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002793">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002793</a> |
| <b>Name</b>                         | Dunham Park SSSI  |
| <b>Reference</b>                    | 1003804   |
| <b>Natural England Contact</b>      | PHIL CHESTERS   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 79.18   |
| <b>Citation</b>                     | 1002940   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002940">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002940</a> |
| <b>Name</b>                         | Woolston Eyes SSSI  |
| <b>Reference</b>                    | 1002660   |
| <b>Natural England Contact</b>      | AMANDA WRIGHT   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 269.82  |
| <b>Citation</b>                     | 1000106   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1000106">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1000106</a> |
| <b>Name</b>                         | The Mere, Mere SSSI   |
| <b>Reference</b>                    | 1002272   |
| <b>Natural England Contact</b>      | AMY COWBURN   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 19.41   |
| <b>Citation</b>                     | 1001818   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001818">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001818</a> |
| <b>Name</b>                         | Tatton Meres SSSI   |
| <b>Reference</b>                    | 1002204   |
| <b>Natural England Contact</b>      | RACHAEL GARNETT   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 90.31   |
| <b>Citation</b>                     | 1003604   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003604">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003604</a> |
| <b>Name</b>                         | Rostherne Mere SSSI   |
| <b>Reference</b>                    | 1002506   |
| <b>Natural England Contact</b>      | ROB ARDEN   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 152.49  |
| <b>Citation</b>                     | 1003353   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003353">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003353</a> |
| <b>Name</b>                         | Rixton Clay Pits SSSI   |
| <b>Reference</b>                    | 1002021   |
| <b>Natural England Contact</b>      | PAUL THOMAS   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 13.5  |
| <b>Citation</b>                     | 1003514   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003514">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003514</a> |
| <b>Name</b>                         | Astley & Bedford Mosses SSSI  |
| <b>Reference</b>                    | 1003988   |
| <b>Natural England Contact</b>      | PAUL THOMAS   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 92  |
| <b>Citation</b>                     | 1002755   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002755">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002755</a> |
| <b>Name</b>                         | Holcroft Moss SSSI  |
| <b>Reference</b>                    | 1002331   |
| <b>Natural England Contact</b>      | PAUL THOMAS   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 19.04   |
| <b>Citation</b>                     | 1006461   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006461">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006461</a> |
| <b>Name</b>                         | Risley Moss SSSI  |
| <b>Reference</b>                    | 1002273   |
| <b>Natural England Contact</b>      | PAUL THOMAS   |
| <b>Natural England Phone Number</b> | 0845 600 3078   |
| <b>Hectares</b>                     | 83.29   |
| <b>Citation</b>                     | 1001838   |
| <b>Hyperlink</b>                    | <a href="http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001838">http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001838</a> |

Special Areas of Conservation (England) - points

**Name**  
**Reference**  
**Hectares**  
**Hyperlink**

MANCHESTER MOSSES  
UK0030200  
171.52  
<http://jncc.defra.gov.uk/protectedsites/sacsselection/sac.asp?eucode=UK0030200>

**Name**  
**Reference**  
**Hectares**  
**Hyperlink**

RIXTON CLAY PITS  
UK0030265  
13.5  
<http://jncc.defra.gov.uk/protectedsites/sacsselection/sac.asp?eucode=UK0030265>

**Special Areas of Conservation (England)**

**Name**  
**Reference**  
**Hectares**  
**Hyperlink**

MANCHESTER MOSSES  
UK0030200  
171.52  
<http://jncc.defra.gov.uk/protectedsites/sacsselection/sac.asp?eucode=UK0030200>

**Name**  
**Reference**  
**Hectares**  
**Hyperlink**

RIXTON CLAY PITS  
UK0030265  
13.5  
<http://jncc.defra.gov.uk/protectedsites/sacsselection/sac.asp?eucode=UK0030265>

**Areas of Outstanding Natural Beauty (England)**

No Features found

**Special Protection Areas (England) - points**

No Features found

**Special Protection Areas (England)**

No Features found

## MAGIC Map search for SSSI Impact Risk Zones for site only

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW?  
2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications

Infrastructure

Airports, helipads and other aviation proposals.

Wind & Solar Energy

Minerals, Oil & Gas

Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non Residential

Residential

Rural Residential

Air Pollution

Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, pig & poultry units, slurry lagoons > 750m<sup>2</sup> & manure stores > 3500t).

Combustion

General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Composting

Discharges

Any discharge of water or liquid waste of more than 5m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Water Supply

Notes

GUIDANCE – How to use the Impact Risk Zones

[/Metadata for magic/SSSI IRZ User Guidance MAGIC.pdf](#)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW?  
2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications

Infrastructure

Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.

Wind & Solar Energy

Minerals, Oil & Gas

Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non Residential

Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha.

Residential

Rural Residential

Any residential development of 100 or more houses outside existing settlements/urban areas.

Air Pollution

Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, pig & poultry units, slurry lagoons > 200m<sup>2</sup> & manure stores > 250t).

Combustion

General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.

Composting

Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.

Discharges

Any discharge of water or liquid waste of more than 5m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Water Supply

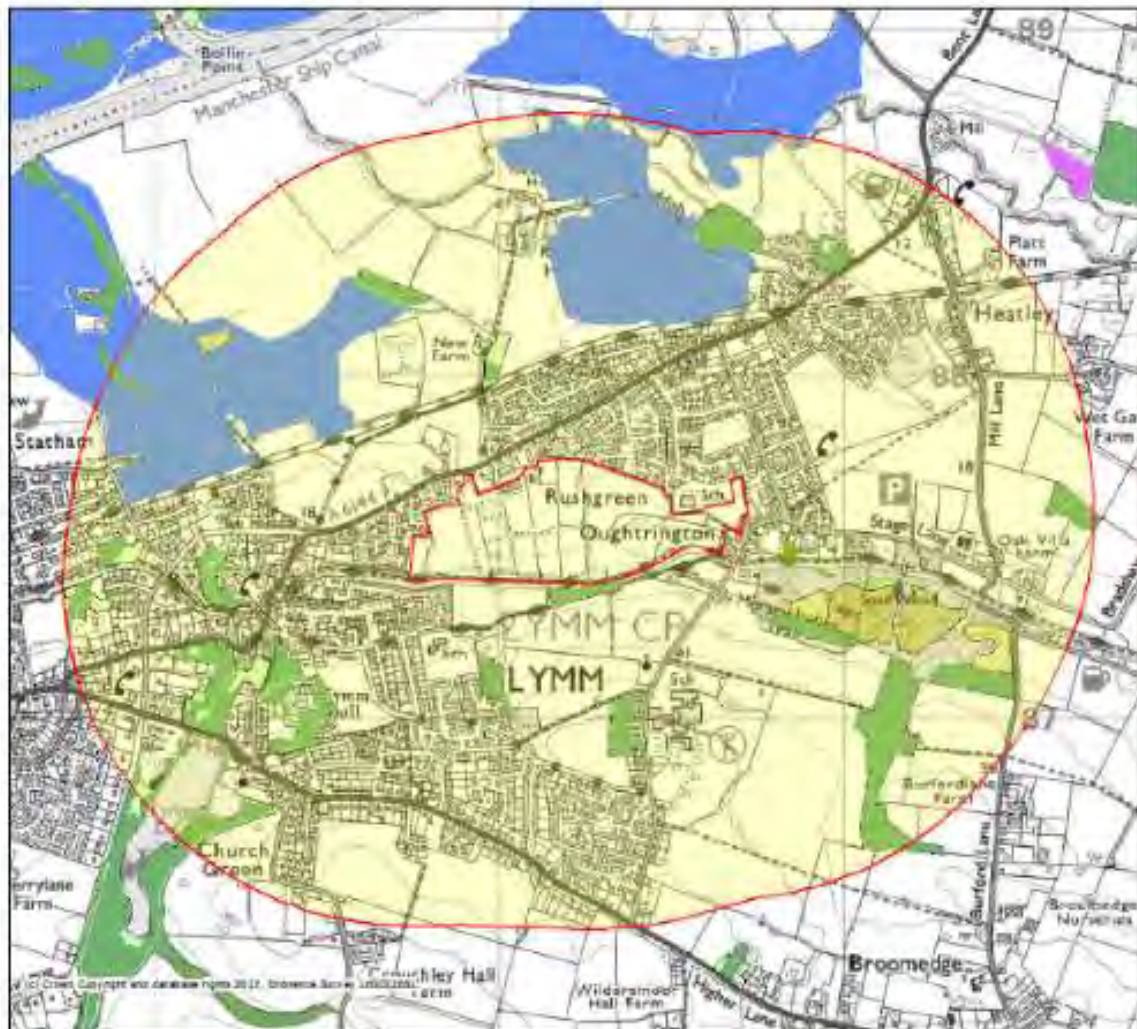
Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m<sup>2</sup> or more.

Notes

GUIDANCE – How to use the Impact Risk Zones

[/Metadata\\_for\\_magic/SSSI IRZ User Guidance MAGIC.pdf](#)

## MAGIC Map 1km search zone for habitat inventory data



**Legend**

|   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li><span style="color: red;">■</span> Priority Habitat Inventory - Calaminarian Grassland (England)</li> <li><span style="color: blue;">■</span> Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)</li> <li><span style="color: purple;">■</span> Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)</li> <li><span style="color: green;">■</span> Priority Habitat Inventory - Lowland Calcareous Grassland (England)</li> <li><span style="color: pink;">■</span> Priority Habitat Inventory - Lowland Dry Acid Grassland (England)</li> <li><span style="color: lightgreen;">■</span> Priority Habitat Inventory - Lowland Meadows (England)</li> <li><span style="color: magenta;">■</span> Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)</li> <li><span style="color: orange;">■</span> Priority Habitat Inventory - Upland Calcareous Grassland (England)</li> <li><span style="color: lightpink;">■</span> Priority Habitat Inventory - Upland Hay Meadows (England)</li> <li><span style="color: brown;">■</span> Ancient Woodland (England)</li> <li><span style="color: tan;">■</span> Ancient and Semi-Natural Woodland</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: tan;">■</span> Ancient Replanted Woodland</li> <li><span style="color: lightgreen;">■</span> Priority Habitat Inventory - Deciduous Woodland (England)</li> <li><span style="color: green;">■</span> Forestry Commission Legal Boundary (England)</li> <li><b>National Forest Inventory (NFI)</b></li> <li><span style="color: lightgreen;">■</span> Assumed woodland</li> <li><span style="color: lightgreen;">■</span> Broadleaved</li> <li><span style="color: lightblue;">■</span> Cloud - shadow</li> <li><span style="color: lightblue;">■</span> Copse</li> <li><span style="color: purple;">■</span> Coppice</li> <li><span style="color: purple;">■</span> Coppice with standards</li> <li><span style="color: red;">■</span> Felled</li> <li><span style="color: brown;">■</span> Felled</li> <li><span style="color: orange;">■</span> Ground area</li> <li><span style="color: lightgreen;">■</span> Low density</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Mixed mainly broadleaved</li> <li><span style="color: yellow;">■</span> Mixed mainly conifer</li> <li><span style="color: blue;">■</span> Thru</li> <li><span style="color: red;">■</span> Unclassified</li> <li><span style="color: brown;">■</span> Windthrow</li> <li><span style="color: yellow;">■</span> Young trees</li> <li><span style="color: green;">■</span> Priority Habitat Inventory - Traditional Orchards (England)</li> <li><span style="color: lightgreen;">■</span> Woodpasture and Parkland BAP Priority Habitat (England)</li> </ul> |
|---|--|--|

Datum = OSGB36  
 spher = Spheroid  
 proj = UTM  
 zone = 31T  
 units = 31T  
 scale = 1:25000

Map produced by MAGIC on 30 August, 2017.  
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## **APPENDIX C: Target Notes**

# Target Notes Report

## Target Note 1

Young semi-natural broad-leaved woodland screening the site from Bucklow Gardens.

|                           |                |   |
|---------------------------|----------------|---|
| <i>Prunus sp.</i>         | Cherry species | D |
| <i>Acer campestre</i>     | Field Maple    | O |
| <i>Betula pendula</i>     | Silver Birch   | O |
| <i>Cornus sanguinea</i>   | Dogwood        | O |
| <i>Corylus avellana</i>   | Hazel          | O |
| <i>Crataegus monogyna</i> | Hawthorn       | O |
| <i>Cytisus scoparius</i>  | Broom          | O |
| <i>Fraxinus excelsior</i> | Ash            | O |
| <i>Rosa canina</i> agg.   | Dog Rose       | O |



## Target Note 2

Tall ruderal vegetation within grazed fields

|                           |                   |   |
|---------------------------|-------------------|---|
| <i>Cirsium arvense</i>    | Creeping Thistle  | D |
| <i>Rumex crispus</i>      | Curled Dock       | F |
| <i>Urtica dioica</i>      | Nettle            | F |
| <i>Cirsium vulgare</i>    | Spear Thistle     | O |
| <i>Epilobium hirsutum</i> | Great Willowherb  | O |
| <i>Petasites hybridus</i> | Butterbur         | O |
| <i>Rubus idaeus</i>       | Raspberry         | O |
| <i>Rumex obtusifolius</i> | Broad-leaved Dock | O |
| <i>Senecio jacobaea</i>   | Common Ragwort    | O |



### Target Note 3

Semi-improved grassland fields which are grazed by horses

|                                  |                    |   |
|----------------------------------|--------------------|---|
| <i>Holcus lanatus</i>            | Yorkshire-fog      | D |
| <i>Ranunculus repens</i>         | Creeping Buttercup | A |
| <i>Agrostis capillaris</i>       | Common Bent        | F |
| <i>Anthriscus sylvestris</i>     | Cow Parsley        | F |
| <i>Arrhenatherum elatius</i>     | False Oat-grass    | F |
| <i>Dactylis glomerata</i>        | Cock's-foot        | F |
| <i>Lolium perenne</i>            | Perennial Ryegrass | F |
| <i>Persicaria maculosa</i>       | Redshank           | F |
| <i>Plantago lanceolata</i>       | Ribwort Plantain   | F |
| <i>Rumex crispus</i>             | Curled Dock        | F |
| <i>Rumex obtusifolius</i>        | Broad-leaved Dock  | F |
| <i>Senecio jacobaea</i>          | Common Ragwort     | F |
| <i>Heracleum sphondylium</i>     | Hogweed            | O |
| <i>Plantago major</i>            | Greater Plantain   | O |
| <i>Ranunculus acris</i>          | Meadow Buttercup   | O |
| <i>Taraxacum officinale agg.</i> | Dandelion          | O |
| <i>Trifolium repens</i>          | White Clover       | O |
| <i>Tripleurospermum inodorum</i> | Scentless Mayweed  | O |
| <i>Vicia sativa</i>              | Common Vetch       | O |
| <i>Chamerion angustifolium</i>   | Rosebay Willowherb | R |



**Target Note 4**

Mature plantation broad-leaved woodland in centre of the site

|                           |                |   |
|---------------------------|----------------|---|
| <i>Fraxinus excelsior</i> | Ash            | D |
| <i>Betula pendula</i>     | Silver Birch   | A |
| <i>Fagus sylvatica</i>    | Beech          | F |
| <i>Quercus robur</i>      | English Oak    | F |
| <i>Corylus avellana</i>   | Hazel          | O |
| <i>Ilex aquifolium</i>    | Holly          | O |
| <i>Sambucus nigra</i>     | Elder          | O |
| <i>Sorbus aucuparia</i>   | Rowan          | O |
| <i>Salix species</i>      | Willow species | R |



## Target Note 5

Semi-natural woodland in the south of the site adjacent to the canal

|                               |                   |   |
|-------------------------------|-------------------|---|
| <i>Fallopia japonica</i>      | Japanese Knotweed | A |
| <i>Impatiens glandulifera</i> | Himalayan Balsam  | A |
| <i>Rubus fruticosus</i> agg.  | Bramble           | A |
| <i>Crataegus monogyna</i>     | Hawthorn          | F |
| <i>Fraxinus excelsior</i>     | Ash               | F |
| <i>Quercus robur</i>          | English Oak       | F |
| <i>Sambucus nigra</i>         | Elder             | F |
| <i>Urtica dioica</i>          | Nettle            | F |
| <i>Acer campestre</i>         | Field Maple       | O |
| <i>Alnus glutinosa</i>        | Alder             | O |
| <i>Calystegia</i> sp.         | Bindweed species  | O |
| <i>Corylus avellana</i>       | Hazel             | O |
| <i>Epilobium hirsutum</i>     | Great Willowherb  | O |
| <i>Digitalis purpurea</i>     | Foxglove          | R |



## Target Note 6

Dense scrub within the grassland

|                                |                         |   |
|--------------------------------|-------------------------|---|
| <i>Rubus fruticosus</i> agg.   | Bramble                 | D |
| <i>Urtica dioica</i>           | Nettle                  | D |
| <i>Fraxinus excelsior</i>      | Ash                     | F |
| <i>Ranunculus repens</i>       | Creeping Buttercup      | F |
| <i>Chamerion angustifolium</i> | Rosebay Willowherb      | O |
| <i>Epilobium montanum</i>      | Broad-leaved Willowherb | O |



### Target Note 6

Marshy grassland within field adjacent to hedgerow

|                       |           |   |
|-----------------------|-----------|---|
| <i>Juncus effusus</i> | Soft Rush | D |
|-----------------------|-----------|---|

### Target Note 8

Dry ditch colonised by scattered broad-leaved trees

|                                |                    |   |
|--------------------------------|--------------------|---|
| <i>Pteridium aquilinum</i>     | Bracken            | D |
| <i>Chamerion angustifolium</i> | Rosebay Willowherb | F |
| <i>Acer pseudoplatanus</i>     | Sycamore           | O |
| <i>Phalaris arundinacea</i>    | Reed Canary-grass  | O |
| <i>Prunus sp.</i>              | Cherry species     | O |
| <i>Quercus robur</i>           | English Oak        | O |



## Target Note 9

Hedgerow 1 on east site boundary. Native species-rich hedgerows with trees. Less than 10% gaps and unmanaged to 15m tall and 4m wide. Adjacent to public footpath and connectivity to semi-natural broad-leaved woodland.

|                               |                |   |
|-------------------------------|----------------|---|
| <i>Crataegus monogyna</i>     | Hawthorn       | D |
| <i>Rubus fruticosus</i> agg.  | Bramble        | A |
| <i>Fraxinus excelsior</i>     | Ash            | F |
| <i>Geum urbanum</i>           | Wood Avens     | F |
| <i>Hedera helix</i>           | Ivy            | F |
| <i>Quercus robur</i>          | English Oak    | F |
| <i>Corylus avellana</i>       | Hazel          | O |
| <i>Prunus</i> sp.             | Cherry species | O |
| <i>Acer campestre</i>         | Field Maple    | R |
| <i>Acer pseudoplatanus</i>    | Sycamore       | R |
| <i>Aesculus hippocastanum</i> | Horse-chestnut | R |



## Target Note 10

Hedgerow 2 - native species-poor intact hedgerow. Leggy and unmanaged to 6m high and 3m wide. Less than 10 gaps.

|                           |                  |   |
|---------------------------|------------------|---|
| <i>Crataegus monogyna</i> | Hawthorn         | D |
| <i>Hedera helix</i>       | Ivy              | A |
| <i>Calystegia</i> sp.     | Bindweed species | F |
| <i>Acer campestre</i>     | Field Maple      | O |
| <i>Centaurea nigra</i>    | Knapweed         | O |
| <i>Quercus robur</i>      | English Oak      | O |
| <i>Sambucus nigra</i>     | Elder            | O |



### Target Note 11

Hedgerow 3 - native species-poor intact hedgerow. Unmanaged to 6m and 3m wide with less than 10% gaps. Viewed from site boundary with binoculars.

*Crataegus monogyna*  
*Impatiens glandulifera*

Hawthorn  
Himalayan Balsam

D  
A



### Target Note 12

Hedgerow 4 - native species-poor hedgerow with trees. Unmanaged with less than 10% gaps. Adjacent to public footpath and canal along south site boundary.

*Crataegus monogyna*  
*Hedera helix*  
*Rubus fruticosus* agg.  
*Urtica dioica*

Hawthorn  
Ivy  
Bramble  
Nettle

D  
A  
A  
A



*Acer pseudoplatanus*  
*Fraxinus excelsior*  
*Quercus robur*  
*Digitalis purpurea*  
*Pteridium aquilinum*

Sycamore  
 Ash  
 English Oak  
 Foxglove  
 Bracken

F  
 F  
 F  
 O  
 O



### Target Note 13

Hedgerow 5 - native species-poor hedgerow with trees. Gaps less than 10%.

*Crataegus monogyna*  
*Acer pseudoplatanus*  
*Artemisia vulgaris*  
*Quercus robur*  
*Quercus cerris*

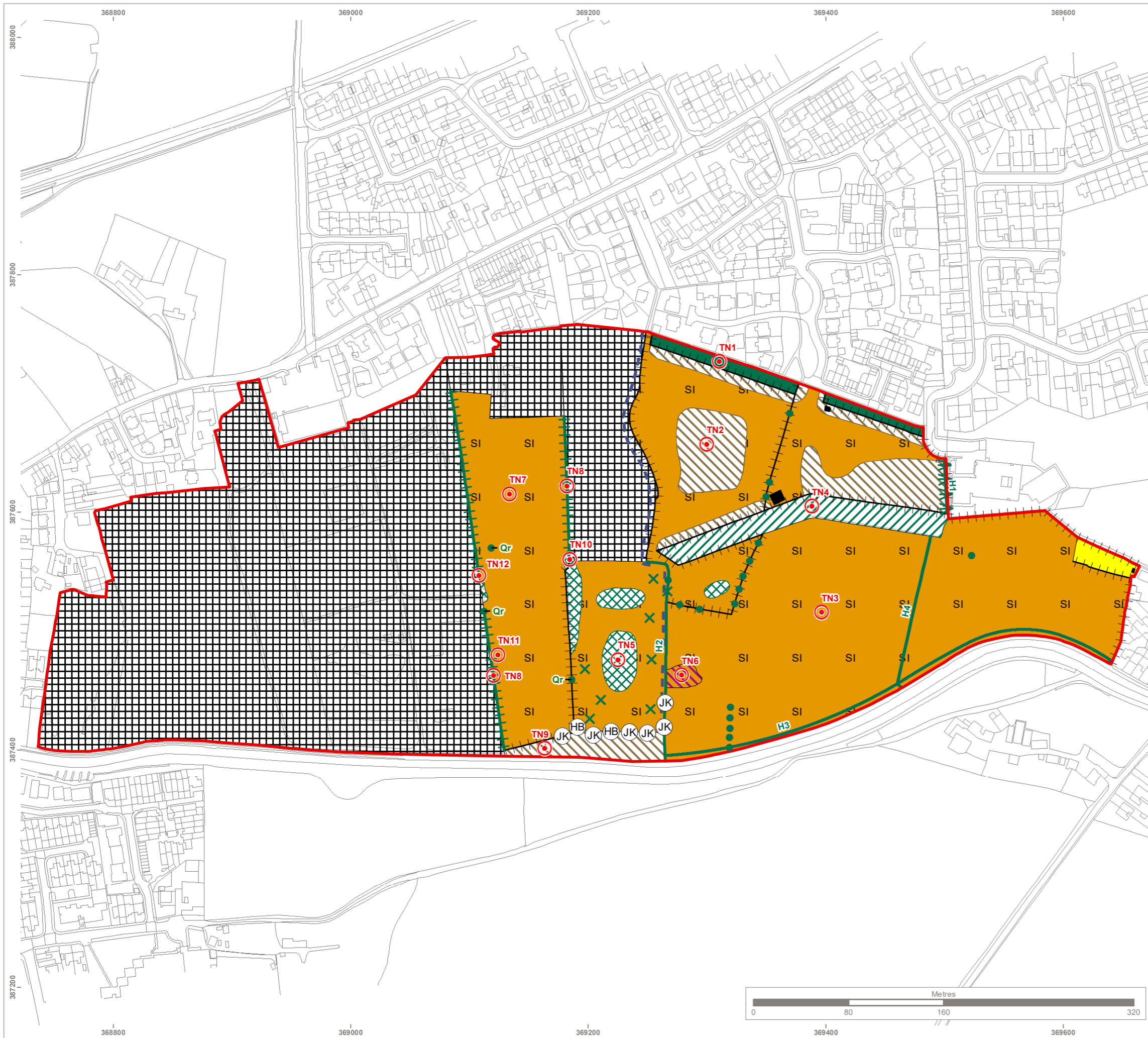
Hawthorn  
 Sycamore  
 Mugwort  
 English Oak  
 Turkey Oak

D  
 O  
 O  
 O  
 R

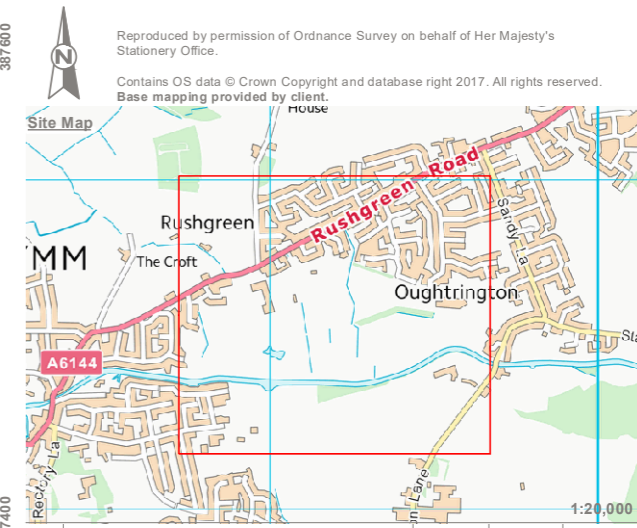


KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

## **DRAWINGS**



- KEY**
- Site Boundary
  - ⊙ Target Notes
  - HB Himalayan Balsam
  - JK Japanese Knotweed
  - × Scattered Scrub
  - Scattered Broad-leaved Trees
  - Species-poor Intact Hedge
  - Native Species-rich Hedge and Trees
  - Species-poor Hedge and Trees
  - Fence
  - Dry Ditch
  - Semi-natural Broad-leaved Woodland
  - Plantation Broad-leaved Woodland
  - Dense/Continuous Scrub
  - Semi-improved Neutral Grassland
  - Marsh/Marshy Grassland
  - Tall Ruderal
  - Amenity Grassland
  - Buildings
  - Not Surveyed



| Rev | Description | Drawn | Approved | Date |
|-----|-------------|-------|----------|------|
|     |             |       |          |      |

**THE ENVIRONMENT PARTNERSHIP**

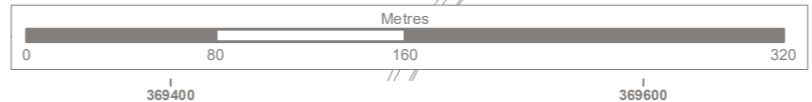
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH  
 Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project  
**Peel Sites, Warrington - Land off Rush Green Lane**

Title  
**Phase 1 Habitat Survey**

Drawing Number  
**G6929.01.005**

| Drawn | Checked | Approved | Scale        | Date       |
|-------|---------|----------|--------------|------------|
| JS    | JS/LS   | AP       | 1:3,200 @ A3 | 27/06/2018 |





---

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# Heritage Appraisal

## Warrington Local Plan – Land at Rushgreen, Lymm

June 2018 (Updated May 2019)

### Introduction

1. This Heritage Appraisal has been prepared in connection with Land at Rushgreen, Lymm (the 'Appraisal Site'). It identifies heritage assets with potential to be affected by development of the Appraisal Site and broadly describes their significance and setting. It identifies whether there are heritage constraints to development and how these constraints could be resolved or mitigated.
2. This Appraisal was originally prepared in July 2018. It has since been updated to refer to the revised NPPF (2019) and provides a review of the proposed masterplans in light of the key heritage considerations originally identified.

### The Appraisal Site

3. The Appraisal Site is a c24 hectare site situated to the north of the Bridgewater Canal to the north east of Lymm village centre. It is an irregularly shaped site which is bounded by existing modern residential development south of Rush Green Road and Oughtrington Primary School to the north and east and the Bridgewater Canal to the south. To the west, the Appraisal Site is bounded by fields which appear to be used for light industrial use or as compounds with metal sheds, containers and vehicles.
4. The Appraisal Site is largely comprised of open fields used for arable crops. There is a small group of houses and ancillary buildings in its north west corner. The topography is generally flat. There are hedgerows and trees along field boundaries within the Appraisal Site, along the towpath at the south of the Appraisal Site and a larger grouping of trees in the north west of the Appraisal Site. There is a dense tree belt running approximately east to west across part of the Appraisal Site to the west of the primary school trees. The rural character of the Appraisal Site is experienced in conjunction with modern housing developments along the northern boundary of the Appraisal Site.
5. The historic field pattern shown on the 1882 Ordnance Survey Map remains discernible today. The footpath, which runs along the south of the residential development to the north of the Appraisal Site, is shown to be a historic route; present from at least the late 19<sup>th</sup> century. The 1882 Map also shows a structure at the south west corner of the Appraisal Site, north of the towpath, which has since been demolished.
6. By 1911, there was a group of buildings in the north west corner of the Appraisal Site which have subsequently been altered and extended. Until the late 20<sup>th</sup> century, Rushgreen and Oughtrington were separate settlements from Lymm. Expansion of Lymm since the 1950s has led to suburban residential development infilling the settlements along the Rushgreen Road and Sandy Lane.

## The Heritage Assets

7. The NPPF (2019) defines a heritage asset as:

*“A building, monument, site, place, area, or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest”<sup>1</sup>.*

8. The setting of a heritage asset is defined by the NPPF (2019) as:

*“The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of setting may make a positive or negative contribution to the significance of an assets, may affect the ability to appreciate that significance or may be neutral”.<sup>2</sup>*

9. A site visit was completed on 22 May 2018 to assess the potential for designated and non-designated heritage assets to be affected by future development of the Appraisal Site for residential use. These assets are set out below and are then followed by a broad assessment of their significance (including the contribution made by setting and the Appraisal Site). There are no locally listed heritage assets proximate to the Appraisal Site.

| Asset Name                         | Grade (if applicable) | Location, relative to Site   |
|------------------------------------|-----------------------|--|
| The Bridgewater Canal Lloyd Bridge | Grade II listed       | Approximately 55m to the south east of the Appraisal Site at its nearest point |
| Tanyard Farmhouse                  | Grade II listed       | Approximately 110m to the west of the Appraisal Site at its nearest point.     |

10. We have reviewed the potential for the Church of St Peter (grade II listed) to be affected by the development of the Appraisal Site. Due to the intervening distance, topography and landscape between the Site and the asset, it is considered unlikely that the significance of the asset will be affected and it is not considered further within this Appraisal.

### **The Bridgewater Canal Lloyd Bridge (grade II listed)**

11. Lloyd Bridge is a road bridges over the Bridgewater Canal dating from c1770 and designed by James Brindley, the engineer of the Bridgewater Canal, for the Duke of Bridgewater. It is constructed of red brick with plain sandstone copings to its parapets. It has a single deep segmental brick arch on stone springers backed by a stone band. The aqueduct has stone dressed brickwork and a 20<sup>th</sup> century parapet to the towpath on the north bank of the canal. There is a plaque on the bridge indicating it was named after a family who served the Bridgewater Canal Company for over 200 years (dated 1963).
12. The bridge is principally listed due to its late 18<sup>th</sup> century date, high degree of intactness and its association with the Bridgewater Canal; often referred to as the first truly man-made canal.

<sup>1</sup> MHCLG (2019) National Planning Policy Framework (NPPF) – Annex 2: Glossary

<sup>2</sup> MHCLG (2019) National Planning Policy Framework (NPPF) – Annex 2: Glossary

## **Contribution made by Setting to Significance**

### ***Physical Surroundings***

13. As set out above, the asset is situated approximately 55m to the south east of the Appraisal Site at its nearest point. It does not have a designed setting. The bridge is aligned north to south on Oughtrington Lane, where it crosses the Bridgewater Canal. There are tow paths on the north and south banks of the Canal with modern residential development to the north. To the south east is a complex of early 20<sup>th</sup> century buildings used for small business and retail. Beyond this immediate development are open fields, mainly in arable use. Lloyd Bridge has a functional association with other assets along the Bridgewater Canal.
14. The surrounding topography is relatively flat. There are bands of trees along the tow path to the north east and south west of the bridge which creates a partially enclosed aspect. The setting of the bridge was largely rural in character until the 1950s when residential development saw the area become an edge of settlement location.

### ***Experience of the Asset***

15. The location of the bridge across the canal gives it prominence in views along the tow paths from both directions, albeit the visibility of the bridge from a distance is reduced due to vegetation along the tow paths. Due to the relative height of the bridge, there are views out from the bridge to the west and east along the canal. The mix of modern residential development and undeveloped fields within these views emphasise the asset's location of the edge of a settlement. However, as set out above, until the 1950s onwards, the setting of the bridge was rural and, although a pleasant backdrop, the extent to which the views contribute to the significance of the asset is limited.
16. There is no intervisibility with other heritage assets. The setting of the bridge is relatively quiet, as would be expected for an edge of settlement location. In addition, the semi-enclosure of the tow paths mean the setting of the bridge, as experienced from the tow path, would have a sense of seclusion. However, it is likely that road and pedestrian traffic greatly increases at school times and the sense of enclosure will lessen during the winter months.
17. The significance of the bridge lies primarily in its age, intactness, former function and association with the Bridgewater Canal. Whilst the setting has some picturesque qualities, it is not essential to the asset's special interest.

### ***Associative Attributes***

18. The structure has no known associative attributes.

### ***Contribution made by the Appraisal Site***

19. The Appraisal Site is separated from the asset by a small late 20<sup>th</sup> century residential development. However the Appraisal Site is visible within views to the west from the bridge and towpath proximate to the bridge. As previously identified, that setting has changed since the 1950s to have an edge of settlement character and the extent to which these views contribute to the significance of the asset is limited.

### ***Tanyard Farmhouse (grade II listed)***

20. Tanyard Farmhouse is of special interest due to its early age (mid- 17<sup>th</sup> century with a c1800 rear extension) and vernacular architecture. It is constructed of squared, tooled and coursed sandstone in large blocks with brick rear and side wings and have a slate roof. The two-storey building has mullioned windows and a central brick chimney. Internally it has a stone inglenook with oak bressumer amongst other 18th-19<sup>th</sup> century vernacular features.

## **Contribution made by Setting to Significance**

### ***Physical Surroundings***

21. As set out above, the asset is situated approximately 110m to the west of the Appraisal Site at its nearest point. The Farmhouse is situated on the south side of Rushgreen Road; a busy road to the north of Lymm village. It does not have a designed setting. It has a small lawn to the front and a garden to the east and south enclosed by a high brick wall. There is a 19<sup>th</sup> century villa and cottages opposite on the north side of the road. Immediately to the west is a former agricultural building converted to residential use beyond which is a recently built supermarket with car park. Surrounding the listed building to the south and east is a modern residential development (Rush Gardens).
22. The topography surrounding the asset is relatively flat with the exception of some limited specimens within nearby gardens; there are no significant areas of trees nearby. With the exception of the supermarket, the surrounding scale of development is domestic and medium to low density. Buildings are arranged freely with a general orientation towards, although set back from, Rushgreen Road. The development along the road creates a degree of enclosure. Cartographic evidence indicates that until the mid-20<sup>th</sup> century, the setting of Tanyard Farmhouse would have been predominately rural, with some later 19<sup>th</sup> century development such as the villas opposite, but has since become suburban in character due to the expansion of Lymm. The fields to the north west at Reddish Crescent provide the last visual relationship with the asset's former rural setting.

### ***Experience of the Asset***

23. The asset is principally experienced from Rushgreen Road. The building's set back, surrounding development and the busy nature of the road mean that the asset is not prominent within the townscape. There are limited views of the asset due to its orientation and surrounding development. The east gable is visible in views from the east along Rushgreen Road. However, the age, form and vernacular architecture is best appreciated from directly in front of the building.

### ***Associative Attributes***

24. The structure has no known associative attributes.

### **Contribution made by the Appraisal Site**

25. Due to the intervening development at Rush Gardens there is no intervisibility between the Appraisal Site and Tanyard Farmhouse. There are no known associative relationships between the Appraisal Site and the asset. As such, it is concluded that the Appraisal Site does not contribute to the significance of the listed building.

## **Overview of Legislation, Key National Planning Policy Considerations and Guidance**

### **Statutory Duty (1990 Act)**

26. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that:

*"In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."*

27. The concept of 'preserve' has been interpreted through case law to mean 'to cause no harm'.



### **The National Planning Policy Framework, revised 2019**

28. Conservation areas are 'designated heritage assets' within the meaning of the NPPF. Paragraph 185 of the NPPF states that local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In developing this strategy, local planning authorities should take into account of:
- The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
  - The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
  - The desirability of new development making a positive contribution to local character and distinctiveness; and
  - Opportunities to draw on the contribution made by the historic environment to the character of a place.
29. Paragraph 190 sets out the principles guiding the determination of applications affecting designated and non-designated heritage assets, and states that:
- 'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal . . . They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.'*
30. Paragraph 192 elaborates that local planning authorities should take account of the desirability of sustaining and enhancing the significance of heritage assets, putting them into viable uses consistent with their conservation, as well as the desirability of new development making a positive contribution to local character and distinctiveness.
31. Paragraph 193 requires when considering the impact of a Proposed Development on the significance of a designated heritage asset, that great weight should be given to the asset's conservation and the more important the asset, the greater that weight should be. Paragraph 194 confirms that significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting and any harm or loss requires clear and convincing justification.
32. In the event that harm is perceived to arise from proposals, the NPPF provides a policy framework at paragraphs 195 and 196 within which such harm can then be weighed against public benefits (196) or substantial public benefits (195) bearing in mind the considerable importance and weight that should be attached to the statutory duty of the Act.
33. Paragraph 200 requires local planning authorities look for opportunities for new development within the setting of heritage assets to better reveal their significance. With respect to setting, the policy notes that proposals that preserve those elements of setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.
- Good Practice Advice Note 3: The Setting of Heritage Assets, Historic England (2017)**
34. Historic England has published guidance in respect of the setting of heritage assets, providing detail on understanding setting and the associated assessment of the impact of any changes. The guidance confirms that setting is not a heritage asset, nor a heritage designation, rather its importance lies in what it contributes to the significance of the relevant heritage asset itself.

## Key Heritage Considerations

35. As previously set out, the significance of the Lloyd Bridge (grade II listed) lies primarily in its age, intactness, former function and association with the Bridgewater Canal and whilst providing an attractive backdrop, setting makes a limited contribution to the actual significance of the asset. There are therefore no significant heritage constraints to redevelopment of the Appraisal Site any effect is likely to be minor and limited to the cumulative effect of further suburbanisation of its former rural setting. The following measures could be considered:
- Open space could be retained in the southern half of the field to the west of Bridge Close, together with the following landscape features to maintain an open and green character in views to the west from Lloyd Bridge:
    - The hedgerow running in a roughly southerly direction from the south west corner of Oughington Primary School.
    - The band of mature trees running approximately east to west from the south west corner of Oughington Primary School.
  - Restrict the height of new development within the east part of the Appraisal Site to a maximum of two storeys.
36. The Masterplan (dated May 2019) has been informed by the identified key heritage considerations. In particular, the existing hedgerows and band of mature trees have been retained, together with an area of open space to the west of Bridge Close. Development of the type and arrangement identified in the Masterplan will sustain the significance of nearby heritage assets.



## LAND AT RUSH GREEN ROAD



## FLOOD RISK AND UTILITIES APPRAISAL

*Shepherd Gilmour Infrastructure Ltd.*

*40 Peter Street*

*Manchester*

*M2 5GP*

*CI283/NM/DOR/EAJ/2017117*



**Report Title:** Land at Rush Green Road, Warrington  
Flood Risk and Utilities Appraisal

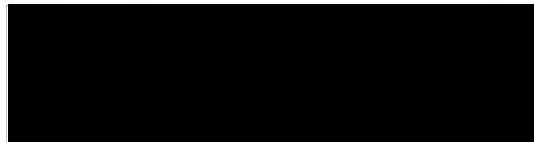
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**Prepared by:**



Natalia Marsden BA (Hons)

**Checked & Approved:**

\_\_\_\_\_

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| -       | 15.09.2017 | NM       | First Issue                               |
| V1      | 28.09.2017 | NM       | Updated as per amended site masterplan    |
| V2      | 04.07.2018 | DOR      | Updated masterplan                        |
| V3      | 12.06.2019 | NCM      | Updated to reflect Walker Morris comments |
|         |            |          |   |



## Limitations

*All findings, recommendations and conclusions contained in this report are based on information provided to us during investigations. Shepherd Gilmour Infrastructure Ltd. has created the report based on the assumption that all the information is accurate and accepts no liability should additional information exist or become available.*

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*Shepherd Gilmour Infrastructure Ltd. does not accept any liability, however concerning the legal significance of its findings or the accuracy of the information presented. The information presented and conclusions drawn are based on statistical data and are for guidance purposes only. The study provides no guarantee against the flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates, and associated probabilities.*

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## SECTION I INTRODUCTION

I.1. Shepherd Gilmour Infrastructure Ltd (SGi) has been engaged by Peel Investments (North) Limited (hereafter “the Applicant”) to provide a Flood Risk and Utilities Appraisal in support of development known as Land at Rush Green Road in Lymm for the forthcoming representations to the Warrington Local Plan.

### SITE LOCATION

I.2. The proposed site is located in the village of Lymm in Warrington. The site is approximately 24 ha in total and consists of agricultural fields, paddocks and pockets of woodland.

- Nearest Postcode: WA13 9PL
- OS Coordinate
- OS Grid Refer



Figure I.1 Red Line Boundary



## TOPOGRAPHY

- I.3. Based on the Ordnance Survey maps, the site ranges in level between 15-25m AOD. The site appears to generally fall in level from the Bridgewater Canal (south boundary) to the A6144 Rush Green Road (just beyond the northern boundary).

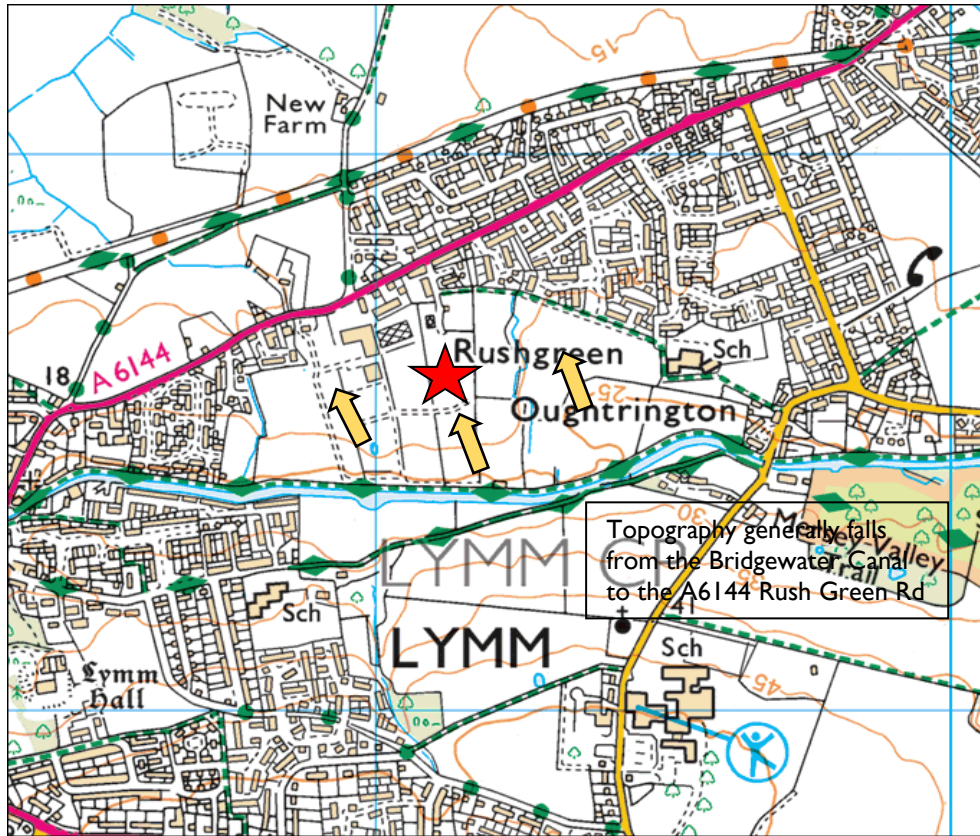


Figure I.2 Site Plan (OS Map)

## PRELIMINARY PROPOSALS

- I.4. The client’s conceptual masterplan is shown in **Figure 1.3** and proposes between 350-420 dwellings with associated infrastructure works, a landscape buffer to sensitive boundaries and existing pockets of woodland and watercourses retained and protected.
- I.5. A full-sized plan of the below masterplan is included in **Appendix A**.



**Figure 1.3 Conceptual Masterplan (Randall Thorp)**

## SECTION 2 PRELIMINARY FLOOD RISK ADVICE

### GOV.UK PLANNING ADVICE MAPS

2.1. The Gov.UK online Flood Maps provide initial information on any flood zoning onsite. These maps indicate that the majority of site is located within Flood Zone 1 (low probability of fluvial flooding) with a small area of Flood Zone 2 (medium probability of fluvial flooding).

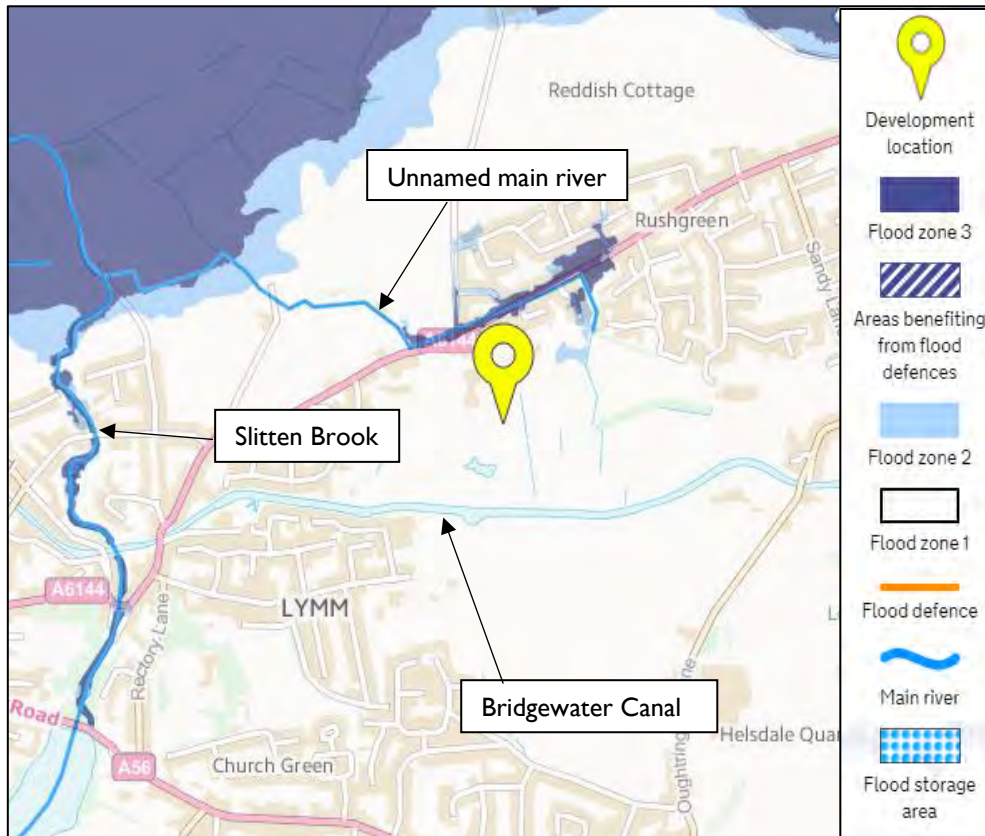
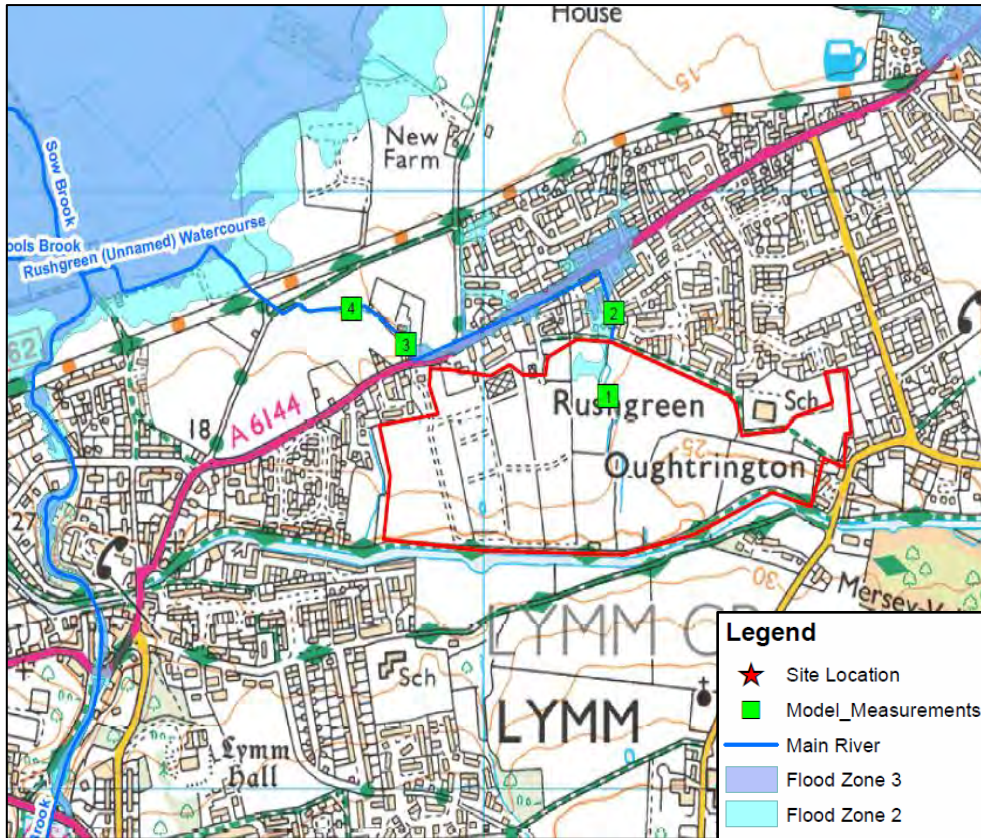


Figure 2.1 Flood Map for Planning (Gov.UK)

### ENVIRONMENT AGENCY DATA

2.2. The latest flood data and maps has been requested from the Environment Agency (EA) and indicate similar flood zoning (**Figure 2.2**). The data also includes estimated flood levels which can be used in conjunction with a topographical survey during the detailed design stage. This information has been included within **Appendix B**.



**Figure 2.2 Detailed Flood Map (EA)**

### FLOOD ZONE GUIDANCE

2.3. The Flood Risk and Coastal Change Guidance indicates which, development type is suitable for each Flood Zone as shown in **Table 2.1 & 2.2.**

| Flood Zone | Flood Risk Vulnerability Classification |                         |                         |                 |                  |
|------------|---|-------------------------|-------------------------|-----------------|------------------|
|            | Essential Infrastructure                | Highly Vulnerable       | More Vulnerable         | Less Vulnerable | Water Compatible |
| 1          | ✓                                       | ✓                       | ✓                       | ✓               | ✓                |
| 2          | ✓                                       | Exception Test Required | ✓                       | ✓               | ✓                |
| 3a         | Exception Test Required                 | x                       | Exception Test Required | ✓               | ✓                |
| 3b         | Exception Test Required                 | x                       | x                       | x               | ✓                |

**Table 2.1 Flood Risk Classification**

|                   |  |
|-------------------|--|
| Highly Vulnerable | <ul style="list-style-type: none"> <li>• Police stations, Ambulance stations and Fire stations and Command Centres.</li> <li>• Emergency dispersal points.</li> <li>• Basement dwellings.</li> <li>• Caravans, mobile homes &amp; park homes intended for permanent residential use.</li> <li>• Installations requiring hazardous substances consent.</li> </ul>   |
| More Vulnerable   | <ul style="list-style-type: none"> <li>• Hospitals.</li> <li>• Residential institutions</li> <li>• Residential dwelling, student halls, drinking establishments/nightclubs and hotels.</li> <li>• Non-residential - Health services, nurseries and educational establishments.</li> <li>• Landfill and sites used for waste management facilities for hazardous waste.</li> </ul>  |
| Less Vulnerable   | <ul style="list-style-type: none"> <li>• Police, ambulance and fire stations which are not required during a flood.</li> <li>• Shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non-residential institutions not included in 'more vulnerable'; and assembly and leisure.</li> <li>• Land and buildings used for agriculture and forestry.</li> <li>• Waste treatment (except landfill and hazardous waste facilities).</li> <li>• Minerals (including open cast mines, quarries, and level working).</li> <li>• Water treatment works (including flood defences).</li> <li>• Sewage treatment works.</li> </ul> |

- 2.4. Applying the sequential approach, the conceptual masterplan (**Figure I.3**) indicates that all residential developments (i.e. more vulnerable development) will be located within low probability areas (Flood Zone 1). Therefore, the client's preliminary proposals meet the requirements of the NPPF at this stage.
- 2.5. The estimated flood levels and detailed development proposals will require further analysis once a topographical survey is available.

## SECTION 3 EXISTING DRAINAGE INFRASTRUCTURE

### PUBLIC SEWERS

3.1. The public sewers within the vicinity of the proposed site are owned and maintained by United Utilities (UU). Copies of their records have been requested and are included in **Appendix C** of this report.

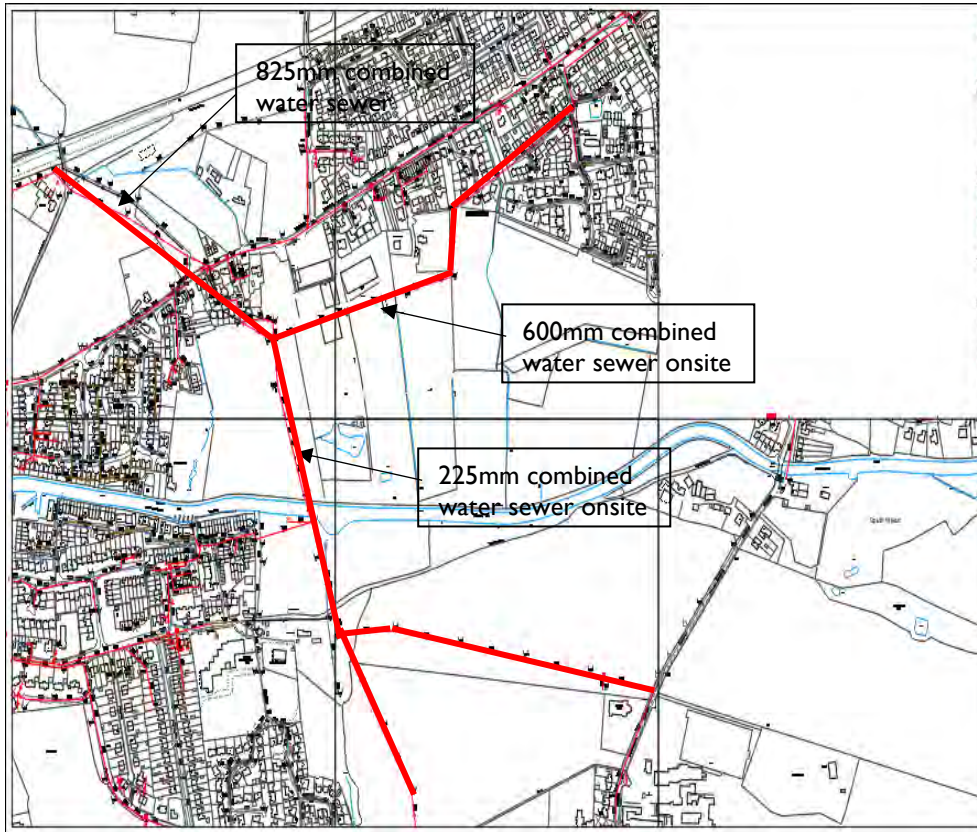


Figure 3.1 Combined UU Sewer Plan

### Surface Water Sewers

3.2. United Utilities records indicate a number of surface water sewers in the surrounding areas but none onsite. The sewers surrounding the site collect and convey runoff to either the Bridgewater Canal (south) or the unnamed main river (north).

### Foul Water Sewers

3.3. According to the records there are foul water sewers in the surrounding areas but none onsite. The sewers collect and convey effluent to the main combined sewer that flows in a northward direction.

### Combined Water Sewers

3.4. Records indicate that there is a 225mm and a 600mm diameter combined sewer onsite. The 600mm sewer enters the site from the east (The Greenacres) and flows

through the site in a westerly direction before leaving the site via the northern boundary.

- 3.5. The 225mm sewer enters the site from the Bridgewater canal and flows northwards to the 600mm sewer. The 225mm sewer appears to miss the proposed development areas but is likely to require a 3m offset each side of the centreline of the sewer (Sewers for Adoption 6<sup>th</sup> Edition).
- 3.6. The 600mm sewer passes through the proposed northern development zones and is likely to require a 4/5m offset each side of the centreline of the sewer (Sewers for Adoption 6<sup>th</sup> Edition).

### **PRIVATE DRAINAGE**

- 3.7. There is no known 

### **PRELIMINARY DEVELOPMENT**

#### **Surface Water Drainage**

- 3.8. Based on the topography and development proposals/location it should be possible to discharge any runoff from the development into the unnamed main river via the onsite waterbody. This arrangement is aligned with the runoff destination hierarchy set out in Paragraph 080 of the Flood Risk and Coastal Change Guidance document.
- 3.9. Note that any surface water runoff rates must be agreed by the Environment Agency and/or Lead Local Flood Authority, dependant on the status of the waterbody.

#### **Foul Water Drainage**

- 3.10. Foul effluent generated by the development should be able to connect into the onsite combined water sewers. At the stage the need for off-site reinforcement is unknown and United Utilities should be consulted as soon as practically possible.

#### **Sewer Diversions**

- 3.11. At this stage, it is difficult to assess if any sewer diversions would be required due to the plans only being at the conceptual stage. More information is required and any sewer diversion can be addressed at a later stage.

## SECTION 4 UTILITIES INFRASTRUCTURE

### ELECTRICITY

- 4.1. The electricity in the area is supplied by Scottish Power Manweb (SP). These records identify a high voltage (11kV) supply within Rushgreen Road beyond the northern boundary, and within Oughttrington Crescent to the east of the site. There are also a number of LV supplies in the vicinity which serve the existing residential areas and commercial properties.
- 4.2. The need for any offsite reinforcement to meet the power demands of the development is unknown. Discussions with Scottish Power Manweb should be undertaken as soon as practically possible.



Figure 4.1 Electricity Infrastructure (SP Manweb)

- 4.3. A copy of the SP Manweb records has been included within **Appendix D**.

### TELECOMMUNICATION

- 4.4. Openreach records show a number of assets in the vicinity of the site which serve the existing dwellings. A supply from the existing infrastructure might be possible but there may not be sufficient capacity. Discussions with Openreach should be undertaken as soon as practically possible.
- 4.5. A copy of Openreach records has been included within **Appendix E**.

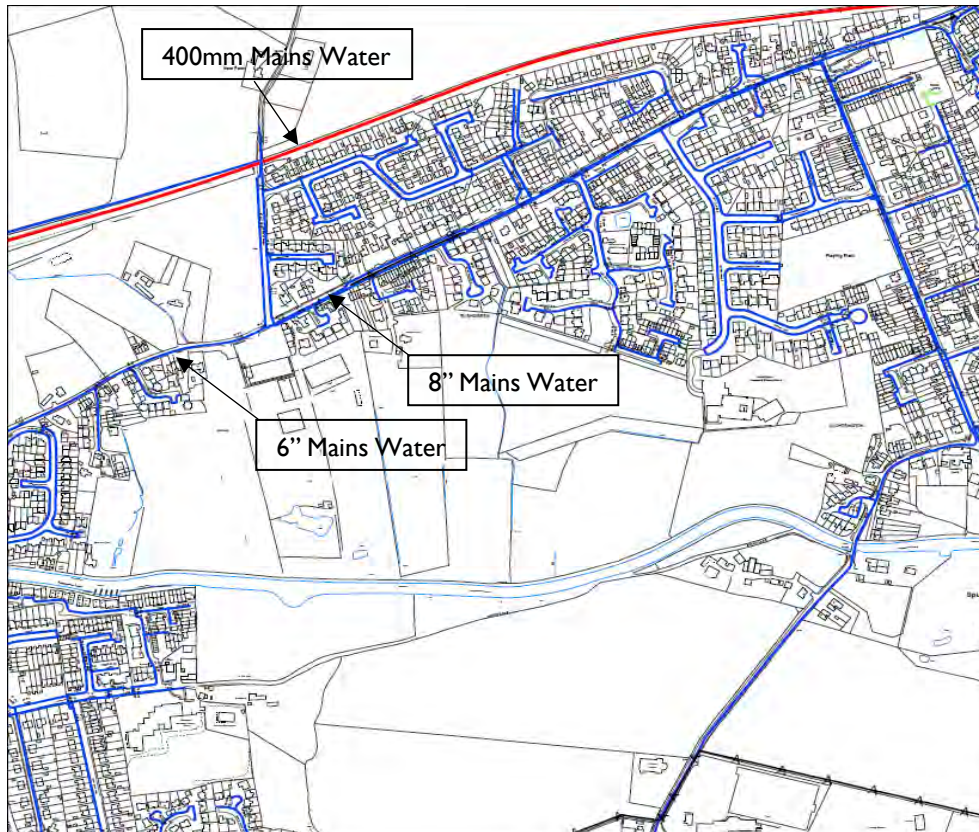
### MAINS WATER

- 4.6. United Utilities records indicate a number of water mains around the site that vary in size. Connections from these mains might be able to supply the site but it is



expected that a direct connection to the 400mm distributor main (north of the site) is more suitable.

- 4.7. Any offsite reinforcement works required to meet the water supply demands is unknown at this stage. Discussions with UU should therefore be undertaken as soon as practically possible.
- 4.8. A copy of United Utilities records has been included within **Appendix C**.



**Figure 4.2 Water Infrastructure (UU)**

**GAS**

- 4.9. Cadent/National Grid records indicate two onsite gas mains within the northern tow path of the Bridgewater canal. The first is a Local High Pressure main and enters the site from the south-eastern corner. The second is a Medium Pressure spur and supply from the LHP that exits the site from the south-western corner.
- 4.10. There is a vast network of Low Pressure mains in the area but these are unlikely to be suitable for the development proposes.
- 4.11. The LHP main are likely to have an associated legal easement but the exact dimensions are unknown at this stage and should be investigated as soon as practically possible.

- 4.12. A connection to the LHP and/or MP could be suitable for the proposed site, but discussions with Cadent/National Grid should be undertaken to confirm. Any offsite reinforcement to meet the gas supply demands of the proposed development is unknown at this stage.

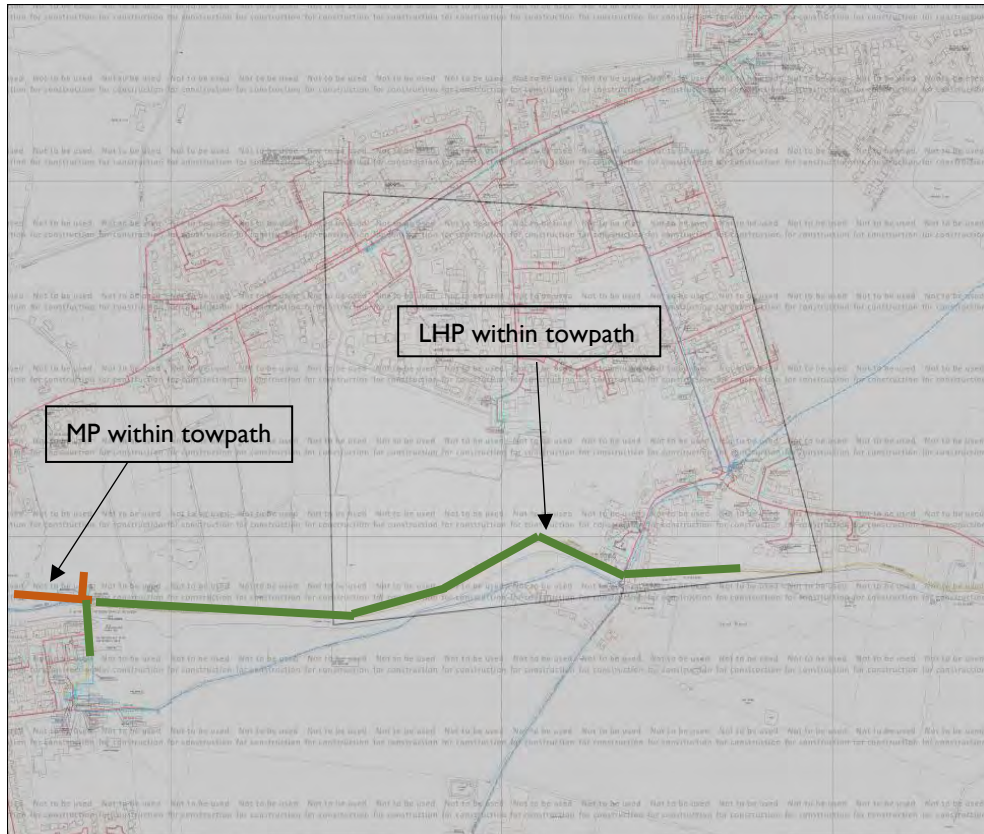


Figure 4.3 Gas Infrastructure (Cadent)

- 4.13. A copy of Cadent/National Grid records has been included within **Appendix F**.

## SECTION 5 HEALTH AND SAFETY EXECUTIVE CHECK

5.1. A preliminary consultation with the Health and Safety Executive has indicated that the proposed site is located near or on a major hazard site or major accident hazard pipeline. The plans provided highlighted one items of risk.

### LHP MAIN

5.2. There is a Local High Pressure main that follows the towpath of the Bridgewater canal. This is considered a major accident hazard pipeline. However, the HSE 'consultation distance' for the risk is indicated as only a narrow 'inner zone'.

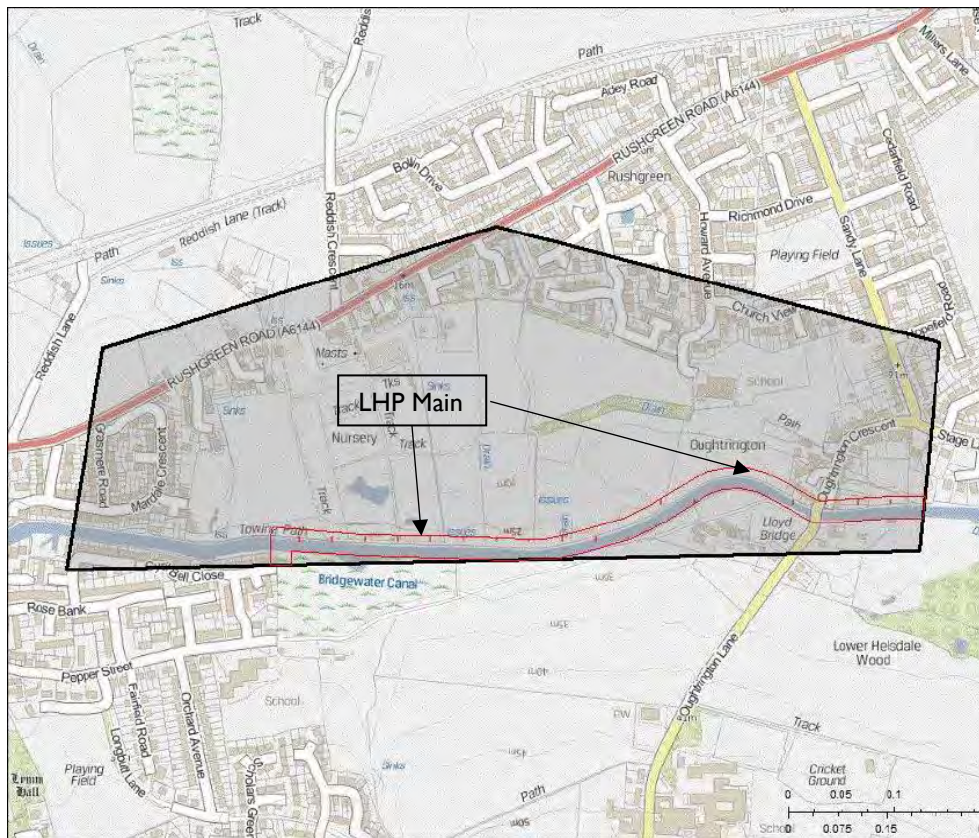


Figure 5.1 Planning Advice Map – LHP Mains (HSE)

### CONSULTATION ZONING

5.3. HSE consultation distances consists of three zones known as the Inner, Middle and Outer. These zones along with the sensitivity level of the development (**Table 5.1**) will determine if the HSE will advise against the proposed development (**Table 5.2**).

5.4.

| Level of Sensitivity | Developments in Inner Zone | Development in Middle Zone | Development in Outer Zone |
|----------------------|----------------------------|----------------------------|---------------------------|
| 1                    | Don't Advise Against       | Don't Advise Against       | Don't Advise Against      |
| 2                    | Advise Against             | Don't Advise Against       | Don't Advise Against      |
| 3                    | Advise Against             | Advise Against             | Don't Advise Against      |
| 4                    | Advise Against             | Advise Against             | Advise Against            |

**Table 5.1 HSE Decision Matrix**

| Development Type | Examples  | Development Detail and Size  | Justification  |
|------------------|---|--|--|
| DT2.1 Housing    | Housing developments including retirement bungalows, care homes and holiday homes | Developments up to 2 dwelling units<br><b>(Level 2)</b>  | Development where people live or are temporarily resident. It may be difficult to organise people in the event of an emergency |
|                  | Exclusions  |  |  |
|                  | Very small developments including infill and back land developments               | DT2.1 x 1<br>Developments of 1 or 2 dwelling units<br><b>(Level 1)</b>   | Minimal increase in numbers at risk  |
|                  | Larger housing developments   | DT2.1 x 2<br>Larger developments for more than 30 dwelling units<br><b>(Level 3)</b><br><br>DT2.1 x 3<br>Any developments for more than 2 dwelling units at a density of more than 40 dwelling units per hectare<br><b>(Level 3)</b> | Substantial increase in numbers at risk<br><br>High density development  |

**Table 5.2 HSE Development Classification**

5.5. The residential proposals for the development are be considered a **Level 3** sensitivity development type and as such should not occur in the Inner Zone. The conceptual development masterplan (**Appendix A**) locates all sensitive development (residential) outside the HSE Inner Zone and thus satisfies the HSE condition.

## SECTION 6 CONCLUSION

6.1. This flood risk and utilities appraisal provides an overview of the existing infrastructure on or around the proposed site and evaluates flood risk issues that may potentially influence the conceptual masterplan. In summary, the statement confirms that:

- a) The proposed development areas are within Flood Zone 1 & 2 (low & medium probability). In accordance with the Flood Risk and Coastal Change Guidance these proposals are acceptable in this zone. All residential development will be located within Flood Zone 1.
- b) The proposed surface water runoff generated by the proposals should discharge to the unnamed main [REDACTED] to be agreed with the Environment Agency [REDACTED] (dependent on the status of the waterbody).
- c) The proposed foul water effluent will discharge to United Utilities onsite combined sewer. Flow rates and any offsite/onsite upgrade works are to be agreed with United Utilities.
- d) Any combined water sewer diversions should be investigated further once the masterplan layout is fixed.
- e) Early discussions with Scottish Power Manweb are required to establish the proposed electricity route(s) to the site.
- f) The existing Openreach infrastructure that surrounds the site could be able to cater for the site proposals. However early discussions with Openreach should be undertaken.
- g) Early discussions with United Utilities are required to establish the proposed mains water route(s) to the site.
- h) Early discussions with Cadent/National Grid are required to confirm the onsite easement associated with the LHP mains and establish the future proposed gas main route(s) to the site.



- i) Preliminary consultation with the Health and Safety Executive indicates that all proposed residential development lies outside of the consultation distance associated with the LHP main. Further discussions are required to confirm this.





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









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# APPENDIX A

**KEY:**

-  Site Boundary
-  Water body
-  Existing woodland/trees
-  Proposed woodland/trees
-  Proposed open space
-  Proposed development cells
-  Proposed 0.6ha school extension
-  Proposed access
-  Potential Emergency Access
-  Proposed main road
-  Proposed secondary road
-  Proposed private drive
-  Existing Public Right of Way
-  Proposed footpath network

NB: Masterplan subject to change following detailed survey work.



**een Road  
Lymm, Warrington**

**Illustration Masterplan - Area 4**

Drwg No: 630DD-16A  
Drawn by: AH  
Rev by: AH  
QM Status: Checked  
Scale: NTS @ A3

Date: 19.09.17  
Checker: CAW  
Rev checker: CAW  
Product Status: Con review



|                       |         |                              |                |
|-----------------------|---------|------------------------------|----------------|
| <b>Area 1:</b>        | 3.29 ha | <b>Area 4:</b>               | 8.95 ha        |
| Developable Area:     | 1.98 ha | Developable Area:            | 3.61 ha        |
| Spine Road:           | 0.01 ha | Spine Road:                  | 0.40 ha        |
| Green Infrastructure: | 1.30 ha | Green Infrastructure:        | 4.94 ha        |
| <b>Area 2:</b>        | 9.02 ha | <b>Total Site Area:</b>      | <b>24.0 ha</b> |
| Developable Area:     | 4.56 ha | <b>(Areas 1, 2, 3 and 4)</b> |                |
| Spine Road:           | 0.66 ha | Total Developable Area:      | 11.74 ha       |
| School Extension:     | 0.60 ha | School Extension:            | 0.60 ha        |
| Green Infrastructure: | 3.20 ha | Spine Roads:                 | 1.15 ha        |
| <b>Area 3:</b>        | 2.74 ha | Green Infrastructure:        | 10.51 ha       |
| Developable Area:     | 1.59 ha | <b>Potential Yield:</b>      |                |
| Spine Road:           | 0.08 ha | @30 dph: 1                   | 352 units      |
| Green Infrastructure: | 1.07 ha | @33 dph: 4                   | 411 units      |





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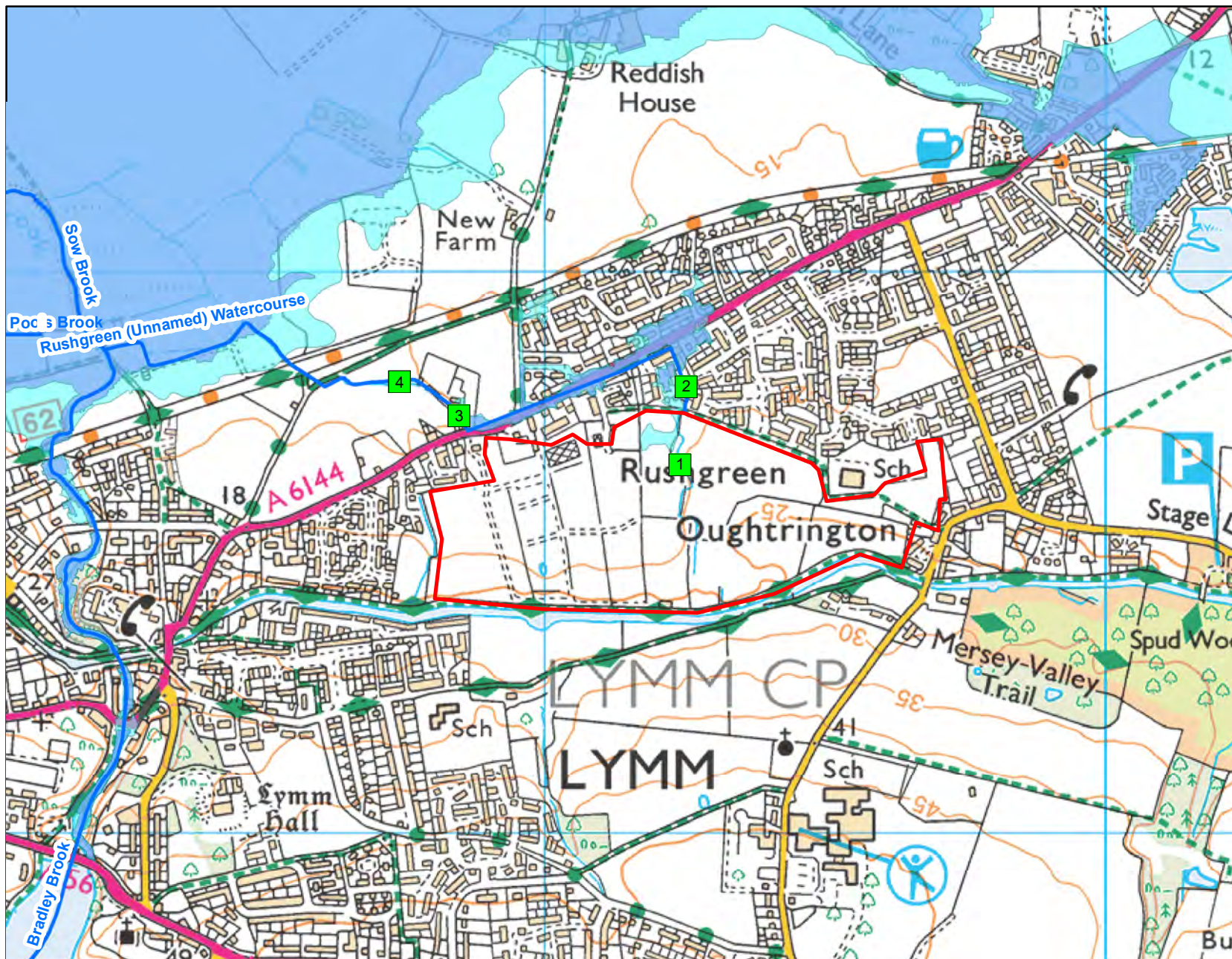
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# APPENDIX B

# Detailed Flood Map centred on Rush Green Road, Lymm. Created 07/08/2017 [GMMC55891CC]



1:10,001



## Legend

- Site Location
- Model Measurements
- Main River
- Flood Zone 3
- Flood Zone 2

| Map Reference | Model Node Reference     | Easting | Northing | Data                          | Undefended              |  |                            |
|---------------|--------------------------|---------|----------|-------------------------------|-------------------------|--|----------------------------|
|               |                          |         |          |                               | 1 % AEP (1 in 100 year) | 1 % AEP (1 in 100 year) +<br>Climate Change* | 0.1 % AEP (1 in 1000 year) |
| 1             | ea013_Model_URUS01_00021 | 369243  | 387656   | Modelled Water Level (m aodN) | 16.50                   | 16.57  | 16.80                      |
|               |                          |         |          | Modelled Flow (cumecs)        | 0.30                    | 0.36   | 0.60                       |
| 2             | ea013_Model_URUS01_00019 | 369254  | 387795   | Modelled Water Level (m aodN) | 16.15                   | 16.16  | 16.21                      |
|               |                          |         |          | Modelled Flow (cumecs)        | 0.29                    | 0.34   | 0.51                       |
| 3             | ea013_Model_URUS01_00013 | 368849  | 387743   | Modelled Water Level (m aodN) | 13.69                   | 13.73  | 13.91                      |
|               |                          |         |          | Modelled Flow (cumecs)        | 0.22                    | 0.27   | 0.55                       |
| 4             | ea013_Model_URUS01_00011 | 368743  | 387803   | Modelled Water Level (m aodN) | 12.20                   | 12.22  | 12.34                      |
|               |                          |         |          | Modelled Flow (cumecs)        | 0.22                    | 0.27   | 0.55                       |

Model data taken from Rushgreen Brook 2011

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes:

\*Climate Change Scenario - 20% increase in flow. We only hold climate change measurements based on the previous climate change guidance. The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

For further guidance on climate change within the GMMC area please see the attachment 'Flood risk assessments: Climate change allowances'. Particularly section 3, table B which shows the Local precautionary allowances for potential climate change impacts.



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# APPENDIX C



**Shepherd Gilmour Infrastructure  
SGi Consulting Colchester House  
40 Peter Street**

**Manchester  
M2 5GP**

**FAO: Natalia Marsden**

Dear Sirs

**Location: Rush Green Road Lymm WA13 9QL**

I acknowledge with thanks your request dated 08/08/17 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network.

<http://www.unitedutilities.com/work-near-asset.aspx>

I trust the above meets with you requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0370 7510101.

Yours Faithfully,



Karen McCormack  
Property Searches Manager

**United Utilities Water Limited**

Property Searches  
Ground Floor Grasmere House  
Lingley Mere Business Park  
Great Sankey  
Warrington  
WA5 3LP

Telephone 0370 751 0101

[Property.searches@uuplc.co.uk](mailto:Property.searches@uuplc.co.uk)

Your Ref: LAND AT RUSH GREEN ROAD LY  
Our Ref: 1316674  
Date: 14/8/2017

## TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self-construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

### **TERMS AND CONDITIONS:**

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
3. In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only and given in accordance with the best information available. The nature of the relevant system and/or its actual position may be different from that shown on the plan and UUWL is not liable for any damage caused by incorrect information provided save as stated in section 199 of the Water Industry Act 1991. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
5. The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

# WASTE WATER SYMBOLOGY

| Combined | Foul | Surface | Overflow |                        |
|----------|------|---------|----------|------------------------|
|          |      |         |          | Manhole                |
|          |      |         |          | Manhole, side entry    |
|          |      |         |          | Public sewer           |
|          |      |         |          | Private sewer          |
|          |      |         |          | S104 sewer             |
|          |      |         |          | Rising Main, public    |
|          |      |         |          | Rising Main, private   |
|          |      |         |          | Rising main, S104      |
|          |      |         |          | Highway Drain, private |
|          |      |         |          | WW Pumping Station     |
|          |      |         |          | Inspection Chamber     |
|          |      |         |          | Extent of Survey       |
|          |      |         |          | Head of System         |
|          |      |         |          | Soakaway               |
|          |      |         |          | Rodding Eye            |
|          |      |         |          | Lamp Hole              |
|          |      |         |          | T Junction/Saddle      |
|          |      |         |          | Gulley                 |
|          |      |         |          | Air Valve              |
|          |      |         |          | Non Return Valve       |
|          |      |         |          | Sewer Overflow         |
|          |      |         |          | Cascade                |
|          |      |         |          | Flow Meter             |
|          |      |         |          | Hatch Box              |
|          |      |         |          | Hydrobrake             |
|          |      |         |          | Inlet                  |
|          |      |         |          | Bifurcation            |
|          |      |         |          | Catchpit               |
|          |      |         |          | Oil Interceptor        |
|          |      |         |          | Penstock               |
|          |      |         |          | Summit                 |
|          |      |         |          | Valve                  |
|          |      |         |          | Valve chamber          |
|          |      |         |          | Washout Chamber        |
|          |      |         |          | Drop Shaft             |
|          |      |         |          | WW Treatment Works     |
|          |      |         |          | Septic Tank            |
|          |      |         |          | Vent Column            |
|          |      |         |          | Network Storage Tank   |
|          |      |         |          | Orifice Plate          |
|          |      |         |          | Vortex Chamber         |
|          |      |         |          | Penstock Chamber       |
|          |      |         |          | Screen Chamber         |
|          |      |         |          | Discharge Point        |
|          |      |         |          | Outfall                |

| MANHOLE FUNCTION |                        | SEWER SHAPE |                    |    |             |
|------------------|------------------------|-------------|--------------------|----|-------------|
| FO               | Foul                   | CI          | Circular           | SQ | Square      |
| SW               | Surface Water          | EG          | Egg                | TR | Trapezoidal |
| CO               | Combined               | OV          | Oval               | AR | Arch        |
| OV               | Overflow               | FT          | Flat Top           | BA | Barrel      |
|                  |                        | RE          | Rectangular        | HO | Horse Shoe  |
|                  |                        |             |                    | U  | Unspecified |
| SEWER MATERIAL   |                        |             |                    |    |             |
| AC               | Asbestos Cement        | DI          | Ductile Iron       |    |             |
| BR               | Brick                  | VC          | Vitrified Clay     |    |             |
| CO               | Concrete               | PP          | Polypropylene      |    |             |
| CSB              | Concrete Segment       | PF          | Pitched Fibre      |    |             |
| CSU              | Concrete Segment       | MA          | Masonary, Coursed  |    |             |
| CC               | Concrete Box Culverted | MA          | Masonary, Random   |    |             |
| PSC              | Plastic                | RP          | Reinforced Plastic |    |             |
| GR               | Glass Reinforced       | CI          | Cast Iron          |    |             |
| GRP              | Glass Reinforced       | SI          | Spun Iron          |    |             |
| PVC              | Polyvinyl Chloride     | ST          | Steel              |    |             |
| PE               | Polyethtlene           | U           | Unspecified        |    |             |

|  |               |
|--|---------------|
|  | Control Kiosk |
|  | Sludge Main   |

| ABANDONED PIPE |               |
|----------------|---------------|
|                | Public Sewer  |
|                | Rising Main   |
|                | Private Sewer |
|                | Sludge Main   |

# Cleanwater Symbolology

## Pipework

| Live | Proposed |  |
|------|----------|--|
|      |          | Distribution Main - Pressurised Main               |
|      |          | LDTM Treated Water Distribution - Pressurised main |
|      |          | LDTM Treated Water Distribution - Gravity main     |
|      |          | Trunk Main - Pressurised main                      |
|      |          | Raw Water Aqueduct - Pressurised Main              |
|      |          | Raw Water Aqueduct - Gravity Main                  |
|      |          | LDTM Raw Water Distribution - Pressurised main     |
|      |          | LDTM Raw Water Distribution - Gravity main         |
|      |          | Private Pipe                                       |
|      |          | Comms Pipe   |
|      |          | Concessionary Service                              |

## Abandoned

|  |                                 |
|--|---------------------------------|
|  | LDTM Treated Water Distribution |
|  | Trunk Main                      |
|  | Raw Water Aqueduct              |
|  | LDTM Raw Water Distribution     |
|  | Distribution main               |
|  | Private Pipe                    |
|  | Comms Pipe                      |
|  | Concessionary Service           |

## Property Types

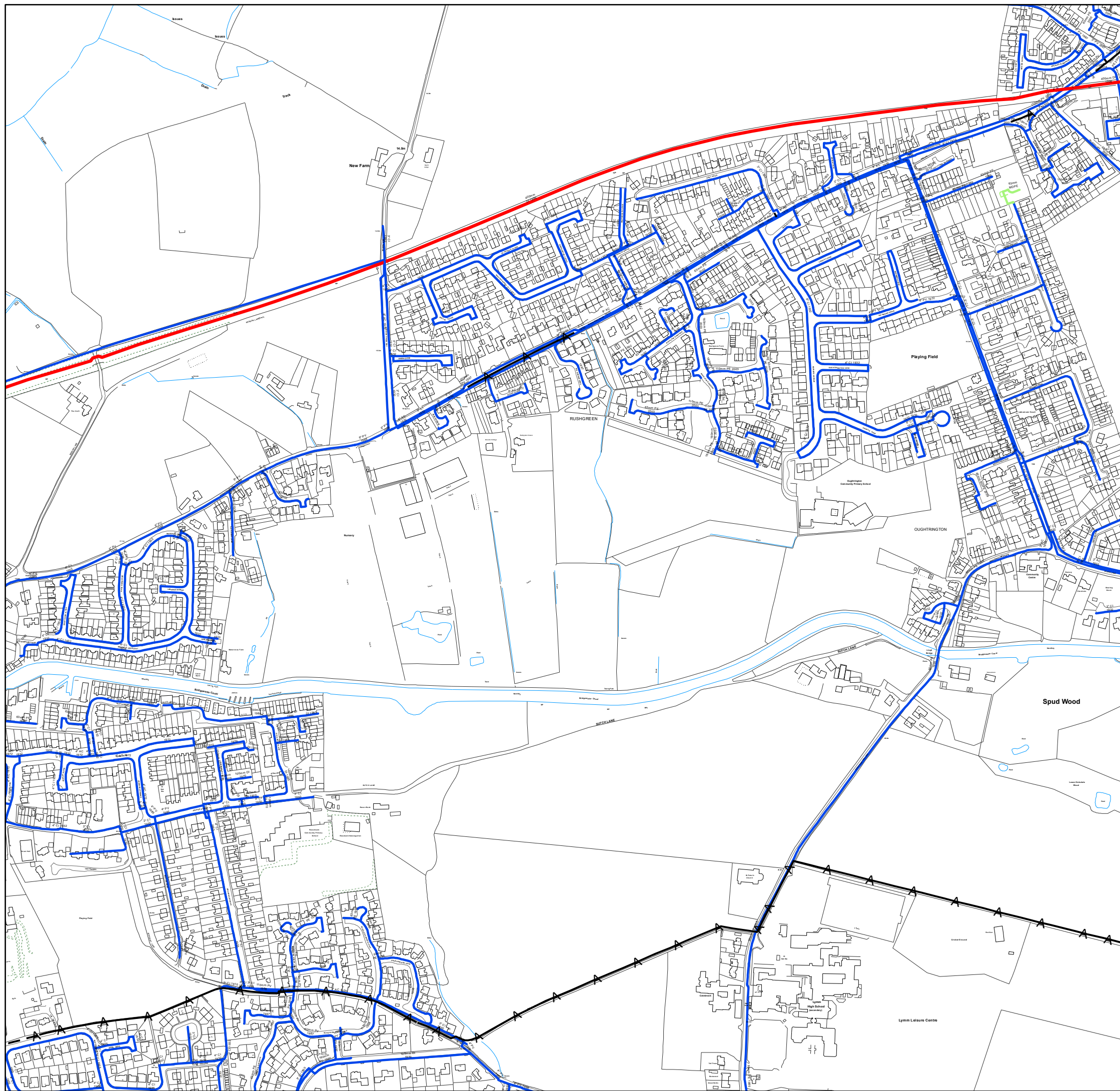
| Live | Proposed |                       |
|------|----------|-----------------------|
|      |          | Condition Report      |
|      |          | Pumping Station       |
|      |          | Water Treatment Works |
|      |          | Valve House           |
|      |          | Water Tower           |
|      |          | Service Reservoir     |
|      |          | Supply Reservoir      |
|      |          | Pipe Bridges          |

## Nodes

| Live | Proposed |                           |
|------|----------|---------------------------|
|      |          | End Cap                   |
|      |          | CC Valve open             |
|      |          | CC Valve closed           |
|      |          | AC Valve open             |
|      |          | AC Valve closed           |
|      |          | Air Valve                 |
|      |          | Sluice Valve              |
|      |          | Non Return Valve          |
|      |          | Pressure Management Valve |
|      |          | Change of Characteristics |
|      |          | Anode                     |
|      |          | Chlorination Point        |
|      |          | De Chlorination Point     |
|      |          | Bore Hole                 |
|      |          | Inlet Point               |
|      |          | Bulk Supply Point         |
|      |          | Fire Hydrant              |
|      |          | Hydrant                   |
|      |          | Pump                      |
|      |          | Site Termination          |
|      |          | Service Start             |
|      |          | Service End               |
|      |          | Commercial Meter          |
|      |          | Domestic Meter            |
|      |          | Strainer Point            |
|      |          | Access Point              |
|      |          | Hatch Box                 |
|      |          | IP Point                  |
|      |          | Sampling Station          |
|      |          | Logger Box                |
|      |          | Stop Tap                  |

| Material Types |                 | Lining Types    |                      |
|----------------|-----------------|-----------------|----------------------|
| AC             | Asbestos Cement | CL              | Cement Lining        |
| CI             | Cast Iron       | TB              | Tar or Bitumen       |
| CU             | Copper          | ERL             | Epoxy Resin          |
| CO             | Concrete        |                 |                      |
| DI             | Ductile Iron    | Insertion Types |                      |
| GI             | Galvanised Iron | DD              | Die Drawn            |
| GR             | Grey Iron       | DR              | Directional Drilling |
| OT             | Others          | MO              | Moling               |
| PB             | Lead            | PI              | Pipeline             |
| PV             | uPVC            | SL              | Slip Lined           |
| SI             | Spun Iron       |                 |                      |
| ST             | Steel           |                 |                      |
| UN             | Unknown         |                 |                      |
| PE             | Polyethelene    |                 |                      |





# Extract from Map of Water Mains

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available

The actual positions may be different from those shown on the plan, private service pipes may be shown where a known record is available.

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**Rush Green Road Lymm WA13 9QL**

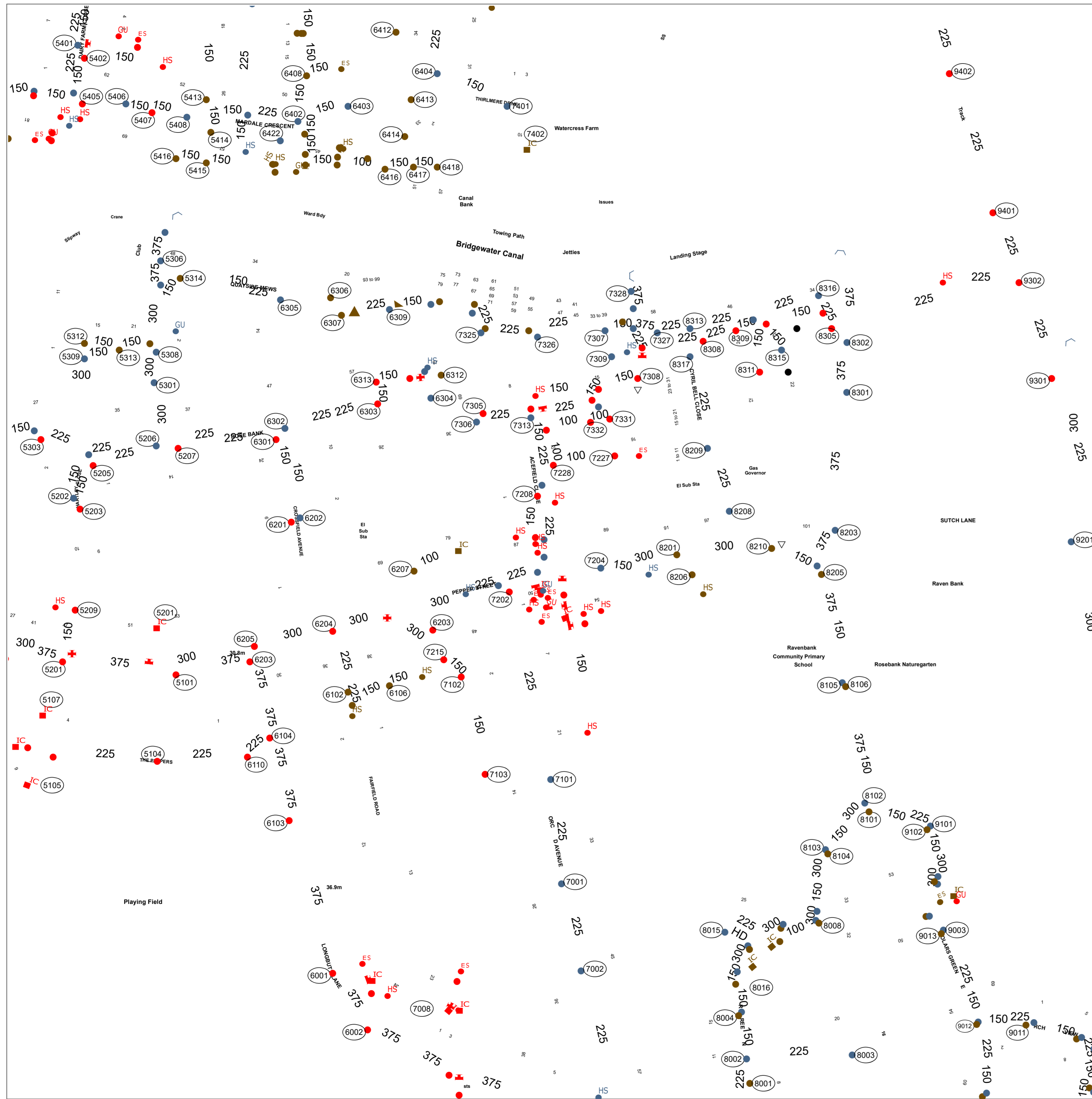
Printed By: Property Searches Date: 14/08/2017

**DO NOT SCALE**  
Approximate Scale: 1:5000









**WASTE WATER SYMBOLGY**

| Foul     | Surface  | Combined | Overflow | Manhole                |
|----------|----------|----------|----------|------------------------|
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Manhole, Side Entry    |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | MainSewer, Public      |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | MainSewer, Private     |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | MainSewer, S104        |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Rising Main, Public    |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Rising Main, Private   |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Rising Main, S104      |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Highway Drain, Private |

| Foul     | Surface  | Combined | Overflow | Manhole                    |
|----------|----------|----------|----------|----------------------------|
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | WW Site Termination        |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Air Valve                  |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Cascade                    |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Non Return Valve           |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Extent of Survey           |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Flow Meter                 |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Gully                      |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Hatch Box                  |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Head of System             |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Hydrobrake / Vortex        |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Inlet                      |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Inspection Chamber         |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Bifurcation                |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Catchpit                   |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Contaminated Surface Water |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | WW Pumping Station         |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Sludge Pumping Station     |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Sewer Overflow             |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | T Junction/Saddle          |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | LampHole                   |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Oil Interceptor            |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | PenStock                   |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Pump                       |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | RoddingEye                 |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Soakaway                   |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Summit                     |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Valve                      |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Valve Chamber              |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Washout Chamber            |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | DropShaft                  |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | WW Treatment Works         |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Septic Tank                |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Vent Column                |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Network Storage Tank       |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Orifice Plate              |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Vortex Chamber             |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Penstock Chamber           |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Blind Manhole              |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Screen Chamber             |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Discharge Point            |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Outfall                    |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Control Kiosk              |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | Unspecified                |

**LEGEND**

**MANHOLE FUNCTION**  
 FO Foul  
 SW Surface Water  
 CO Combined  
 OV Overflow

**SEWER SHAPE**  
 CI Circular TR Trapezoidal  
 EG Egg AR Arch  
 OV Oval BA Barrel  
 FT Flat Top HO HorseShoe  
 RE Rectangular UN Unspecified  
 SQ Square

**SEWER MATERIAL**

|                               |                        |
|-------------------------------|------------------------|
| AC Asbestos Cement            | DI Ductile Iron        |
| BR Brick                      | PVC Polyvinyl Chloride |
| PE Polyethylene               | CI Cast Iron           |
| RP Reinforced Plastic Matrix  | SI Spun Iron           |
| CO Concrete                   | ST Steel               |
| CSB Concrete Segment Bolted   | VC Vitrified Clay      |
| CSU Concrete Segment Unbolted | PP Polypropylene       |
| CC Concrete Box Culverted     | PF Pitch Fibre         |
| PSC Plastic/Steel Composite   | MAR Masonry, Coursed   |
| GRC Glass Reinforced Concrete | MAR Masonry, Random    |
| GRP Glass Reinforced Plastic  | U Unspecified          |

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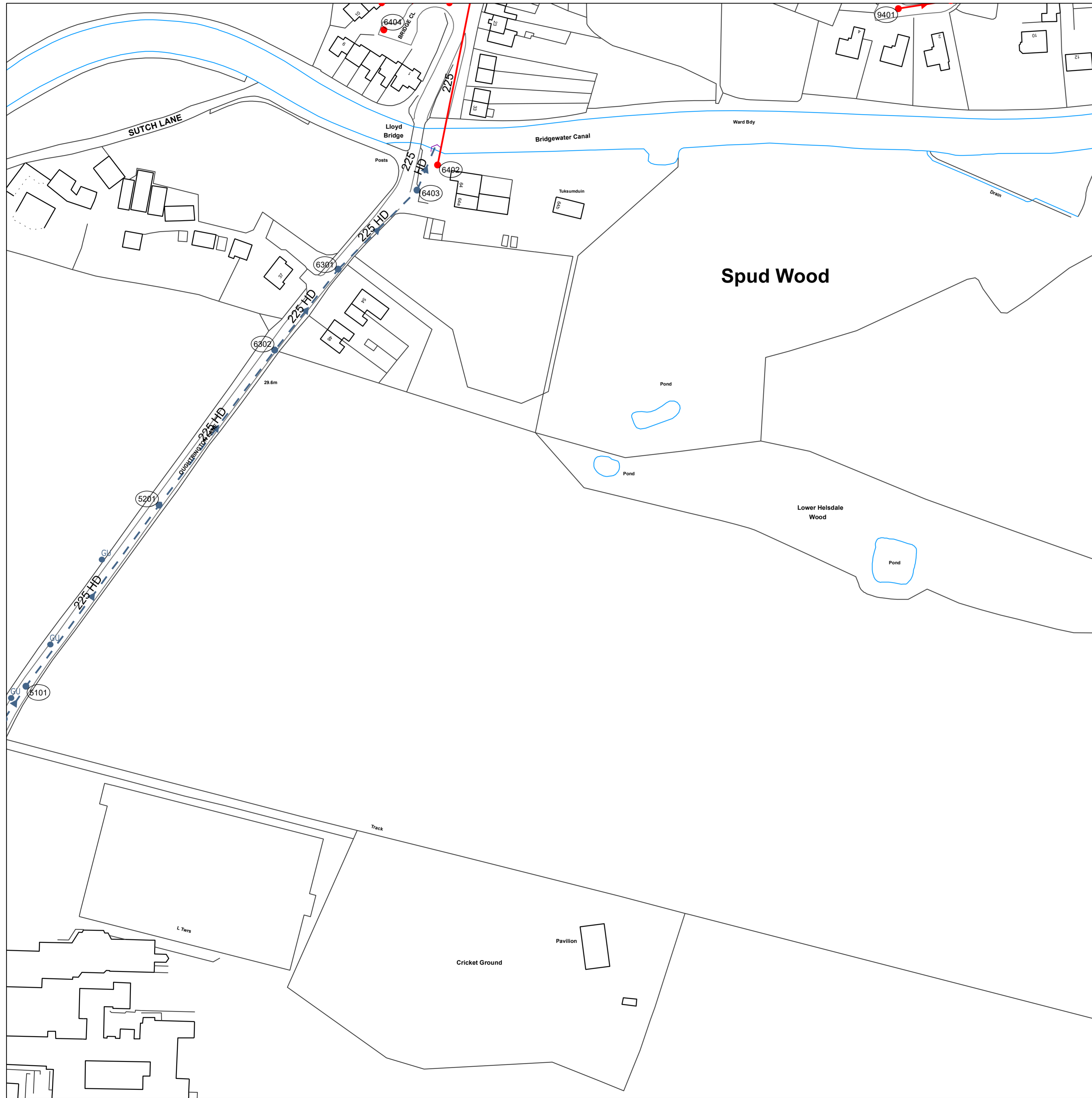
OS Sheet No: SJ6887SE  
 Scale: 1:1250 Date: 14/08/2017

OS Sheet No: SJ6887SE  
 Scale: 1:1250 Date: 14/08/2017  
 311 Nodes  
 Sheet 2 of 2









| Refo | Cover | Func | Invert | Size | Size | yShape | Mat | Length | Grad | Refo | Cover | Func | Invert | Size | Size | yShape | Mat | Length | Grad |  |
|------|-------|------|--------|------|------|--------|-----|--------|------|------|-------|------|--------|------|------|--------|-----|--------|------|--|
| 5101 | 38.63 | SW   |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 5201 | 32.38 | SW   |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 6301 | 28.5  | SW   | 27.18  | 225  | CI   | VC     |     | 51.19  |      |      |       |      |        |      |      |        |     |        |      |  |
| 6302 | 29.44 | SW   |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 6402 | CO    |      | 0      | 225  | CI   | VC     |     | 78.63  |      |      |       |      |        |      |      |        |     |        |      |  |
| 6403 | SW    |      |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 6404 | CO    |      |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 9401 | CO    |      | 0      | 150  | CI   | VC     |     | 24.35  |      |      |       |      |        |      |      |        |     |        |      |  |
| 5102 | SW    |      |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 5202 | SW    |      |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |
| 5203 | SW    |      |        |      |      |        |     |        |      |      |       |      |        |      |      |        |     |        |      |  |

**WASTE WATER SYMBOLGY**

|  |  |  |  |  |                        |
|--|--|--|--|--|------------------------|
|  |  |  |  |  | Manhole                |
|  |  |  |  |  | ManHole, Side Entry    |
|  |  |  |  |  | MainSewer, Public      |
|  |  |  |  |  | MainSewer, Private     |
|  |  |  |  |  | MainSewer, S104        |
|  |  |  |  |  | Rising Main, Public    |
|  |  |  |  |  | Rising Main, Private   |
|  |  |  |  |  | Rising Main, S104      |
|  |  |  |  |  | Highway Drain, Private |

|  |                            |  |                      |
|--|----------------------------|--|----------------------|
|  | WW Site Termination        |  | Sludge Main, Public  |
|  | Air Valve                  |  | Sludge Main, Private |
|  | Cascade                    |  | Sludge Main, S104    |
|  | Non Return Valve           |  |                      |
|  | Extent of Survey           |  |                      |
|  | Flow Meter                 |  |                      |
|  | Gulley                     |  |                      |
|  | Hatch Box                  |  |                      |
|  | Head of System             |  |                      |
|  | Hydrobrake / Vortex        |  |                      |
|  | Inlet                      |  |                      |
|  | Inspection Chamber         |  |                      |
|  | Bifurcation                |  |                      |
|  | Catchpit                   |  |                      |
|  | Contaminated Surface Water |  |                      |
|  | WW Pumping Station         |  |                      |
|  | Sludge Pumping Station     |  |                      |
|  | Sewer Overflow             |  |                      |
|  | T Junction/Saddle          |  |                      |
|  | LampHole                   |  |                      |
|  | OilInterceptor             |  |                      |
|  | PenStock                   |  |                      |
|  | Pump                       |  |                      |
|  | RoddingEye                 |  |                      |
|  | Soakaway                   |  |                      |
|  | Summit                     |  |                      |
|  | Valve                      |  |                      |
|  | Valve Chamber              |  |                      |
|  | Washout Chamber            |  |                      |
|  | DropShaft                  |  |                      |
|  | WW Treatment Works         |  |                      |
|  | Septic Tank                |  |                      |
|  | Vent Column                |  |                      |
|  | Network Storage Tank       |  |                      |
|  | Orifice Plate              |  |                      |
|  | Vortex Chamber             |  |                      |
|  | Penstock Chamber           |  |                      |
|  | Blind Manhole              |  |                      |
|  | Foul                       |  | Control Kiosk        |
|  | Surface                    |  | Discharge Point      |
|  | Combined                   |  | Outfall              |
|  | Overflow                   |  | Unspecified          |

**LEGEND**

**MANHOLE FUNCTION**

FO Foul  
 SW Surface Water  
 CO Combined  
 OV Overflow

**SEWER SHAPE**

CI Circular TR Trapezoidal  
 EG Egg AR Arch  
 OV Oval BA Barrel  
 FT Flat Top HO HorseShoe  
 RE Rectangular UN Unspecified  
 SQ Square

**SEWER MATERIAL**

|                               |                        |
|-------------------------------|------------------------|
| AC Asbestos Cement            | DI Ductile Iron        |
| BR Brick                      | PVC Polyvinyl Chloride |
| PE Polyethylene               | CI Cast Iron           |
| RP Reinforced Plastic Matrix  | SI Spun Iron           |
| CO Concrete                   | ST Steel               |
| CSB Concrete Segment Bolted   | VC Vitrified Clay      |
| CSU Concrete Segment Unbolted | PP Polypropylene       |
| CC Concrete Box Culverted     | PF Pitch Fibre         |
| PSC Plastic/Steel Composite   | MAR Masonry, Coursed   |
| GRC Glass Reinforced Concrete | MAR Masonry, Random    |
| GRP Glass Reinforced Plastic  | U Unspecified          |

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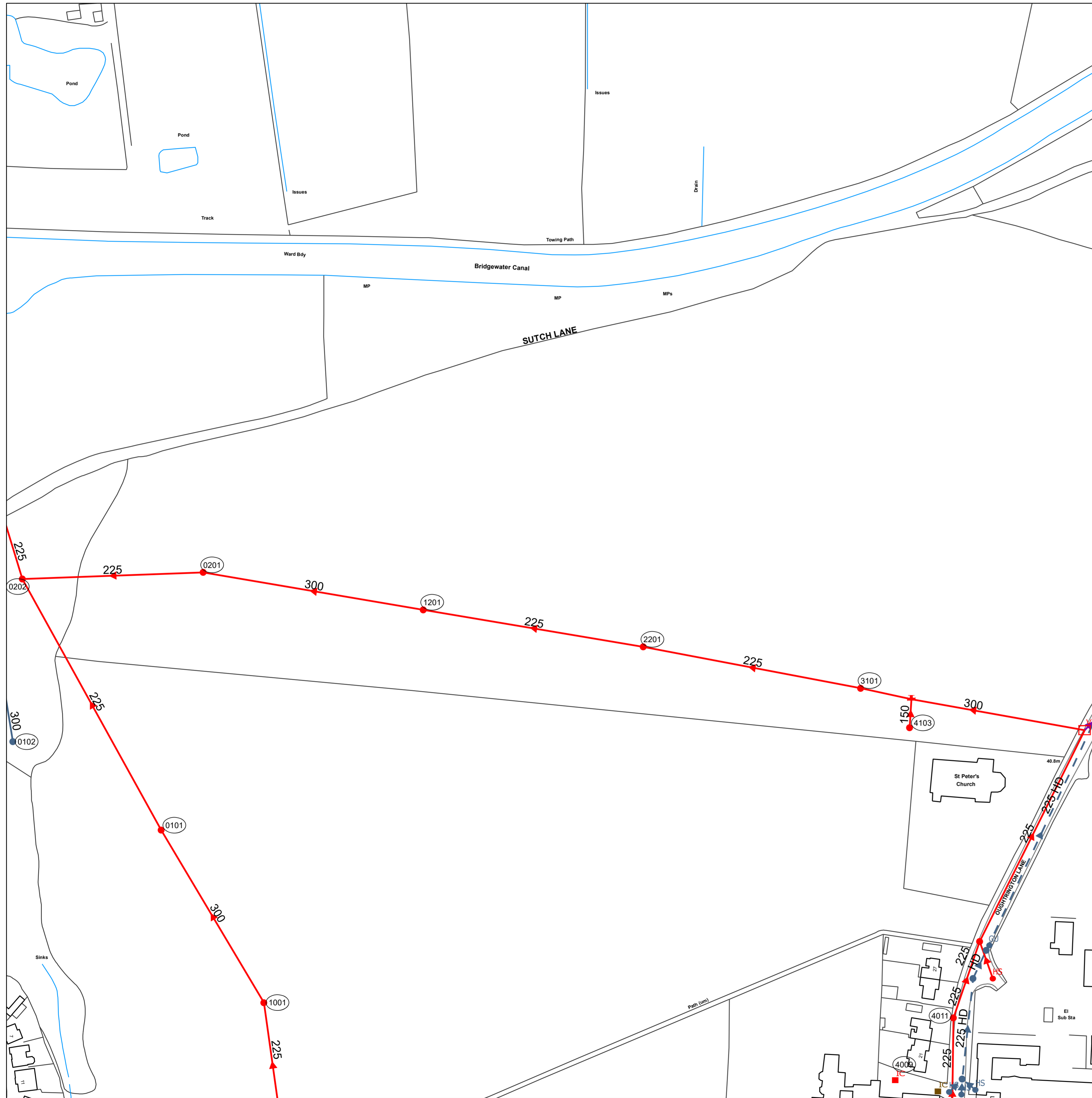
OS Sheet No: SJ6987SE  
 Scale: 1:1250 Date: 14/08/2017  
 11 Nodes  
 Sheet 1 of 1



OS Sheet No: SJ6987SE

Scale: 1:1250 Date: 14/08/2017

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### WASTE WATER SYMOLOGY

| Foul | Surface | Combined | Overflow | Manhole                |
|------|---------|----------|----------|------------------------|
|      |         |          |          | Manhole, Side Entry    |
|      |         |          |          | MainSewer, Public      |
|      |         |          |          | MainSewer, Private     |
|      |         |          |          | MainSewer, S104        |
|      |         |          |          | Rising Main, Public    |
|      |         |          |          | Rising Main, Private   |
|      |         |          |          | Rising Main, S104      |
|      |         |          |          | Highway Drain, Private |

| Foul | Surface | Combined | Overflow | Manhole |
|------|---------|----------|----------|---------|
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |
|      |         |          |          |         |

### LEGEND

| MANHOLE FUNCTION | SEWER SHAPE    | SEWER MATERIAL                |
|------------------|----------------|-------------------------------|
| FO Foul          | CI Circular    | AC Asbestos Cement            |
| SW Surface Water | EG Egg         | BR Brick                      |
| CO Combined      | OV Oval        | PE Polyethylene               |
| OV Overflow      | FT Flat Top    | RP Reinforced Plastic Matrix  |
|                  | RE Rectangular | CO Concrete                   |
|                  | SQ Square      | CSB Concrete Segment Bolted   |
|                  |                | CSU Concrete Segment Unbolted |
|                  |                | CC Concrete Box Culverted     |
|                  |                | PSC Plastic/Steel Composite   |
|                  |                | GRC Glass Reinforced Concrete |
|                  |                | GRP Glass Reinforced Plastic  |
|                  | TR Trapezoidal | DI Ductile Iron               |
|                  | AR Arch        | PVC Polyvinyl Chloride        |
|                  | BA Barrel      | CI Cast Iron                  |
|                  | HO HorseShoe   | SI Spun Iron                  |
|                  | UN Unspecified | ST Steel                      |
|                  |                | VC Vitrified Clay             |
|                  |                | PP Polypropylene              |
|                  |                | PF Pitch Fibre                |
|                  |                | MAR Masonry, Coursed          |
|                  |                | MAC Masonry, Random           |
|                  |                | U Unspecified                 |

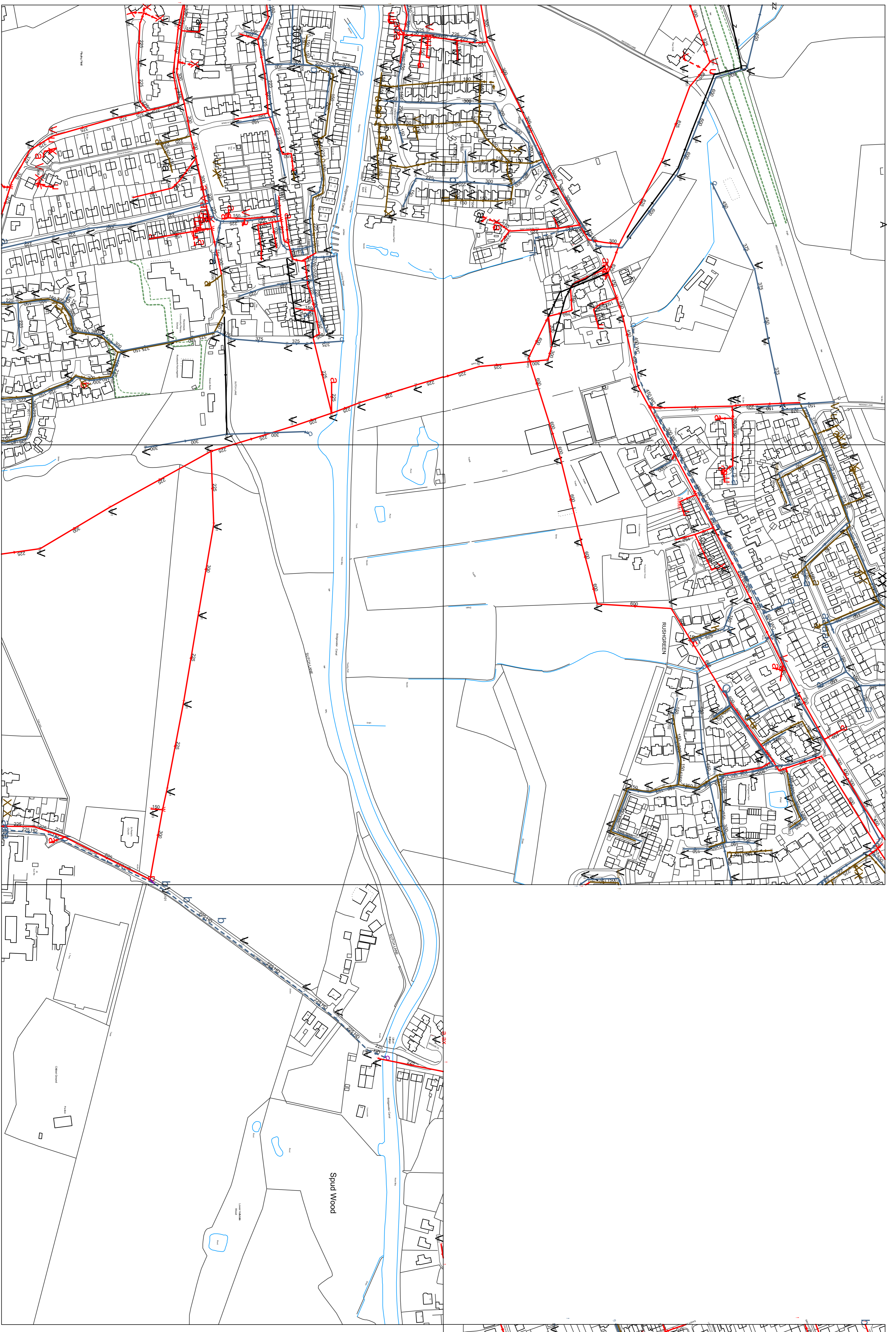
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OS Sheet No: SJ6987SW  
 Scale: 1:1250 Date: 14/08/2017  
 24 Nodes  
 Sheet 1 of 1

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 OS Sheet No: SJ6987SW  
 Scale: 1:1250 Date: 14/08/2017









Shepherd Gilmour  
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

[www.shepherd-gilmour.co.uk](http://www.shepherd-gilmour.co.uk)

# APPENDIX D



The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-092-9290 (Scottish Power area) or 0800-001-5400 (SP Manweb area).

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**SP ENERGY NETWORKS**  
On behalf of SP Manweb plc

SP Manweb plc  
Registered Office: c/o PowerSystems  
3 Prenton Way, Prenton, CH43 3ET  
Registered in England and Wales No 2366937

**OVERHEAD LINE**

**UNDERGROUND CABLES**

In Use

Out of Use

Assumed route

**VOLTAGE COLOUR KEY**

|     |       |       |
|-----|-------|-------|
| EHV | 132kV | BLUE  |
| HV  | 33kV  | GREEN |
| LV  |       | RED   |
|     |       | BROWN |

Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

|                | EHV | HV  | LV  |
|----------------|-----|-----|-----|
| IN FOOTPATHS : | 775 | 600 | 450 |
| ACROSS ROADS : | 775 | 700 | 600 |
| ALONG ROADS :  | 775 | 700 | 600 |
| AGRICULTURAL : | 910 | 910 | 910 |

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE: 14/09/2017

SCALE: 1 : 3,000

MAP REFERENCE: 369,161 387,555

0 10 20 40 60 80 Metres



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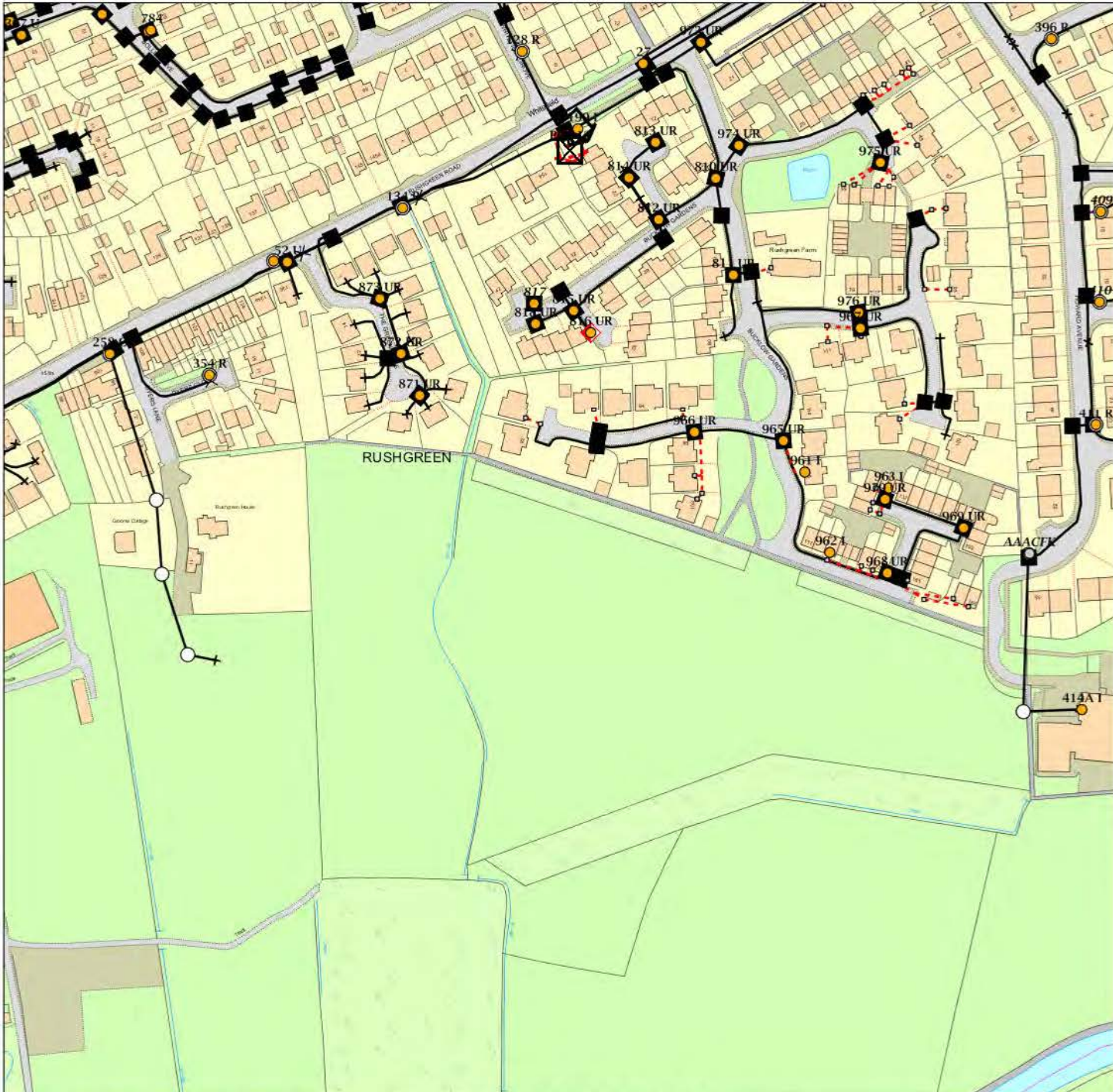
Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

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# APPENDIX E

# Maps by email Plant Information Reply



## IMPORTANT WARNING

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
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Information valid at time of preparation

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BT Ref : GAS11569D

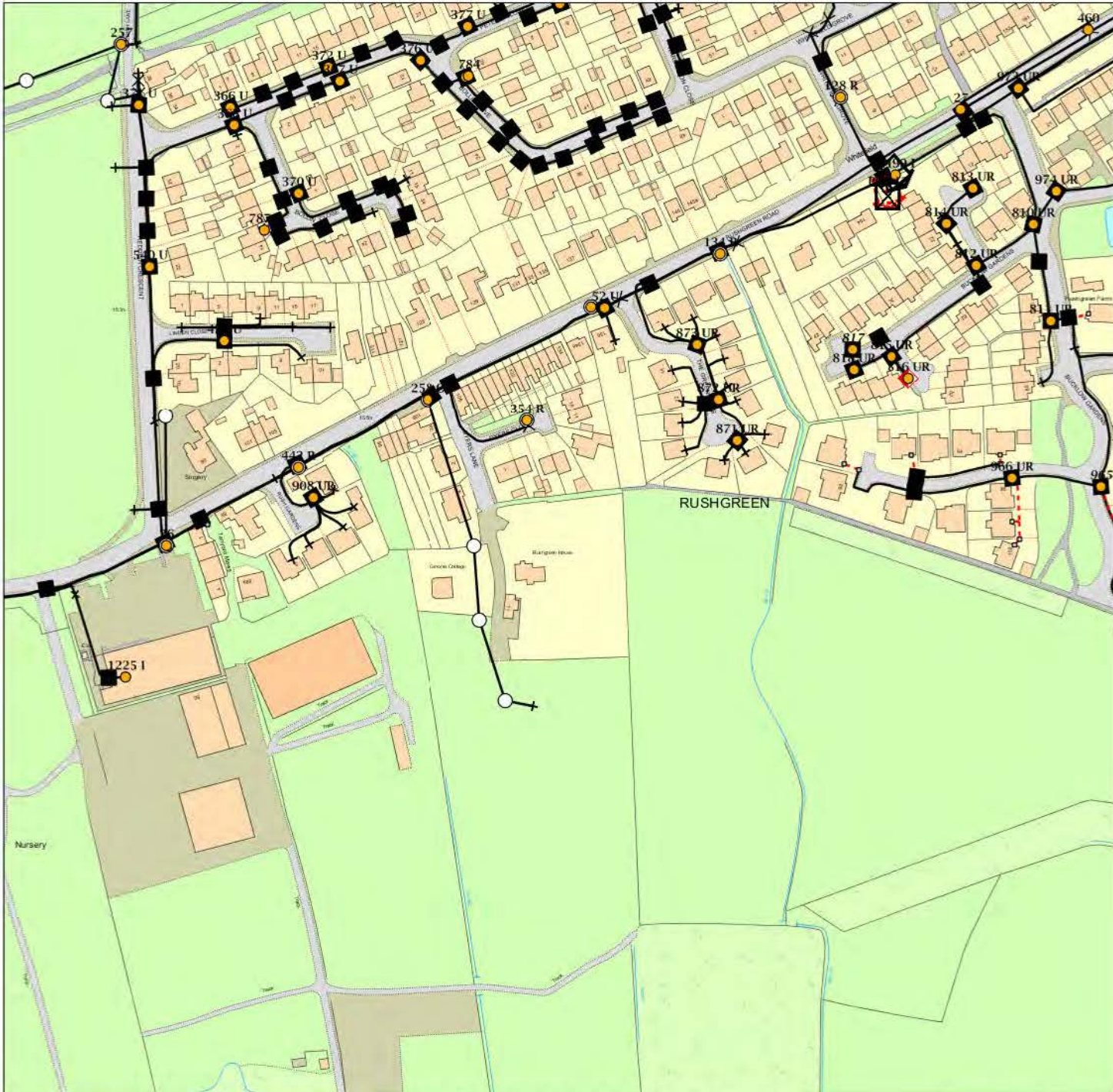
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Easting/Northing : (centre) 369291,3877

Issued : 08/08/2017 11:56:23

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

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BT Ref : XVK11569V

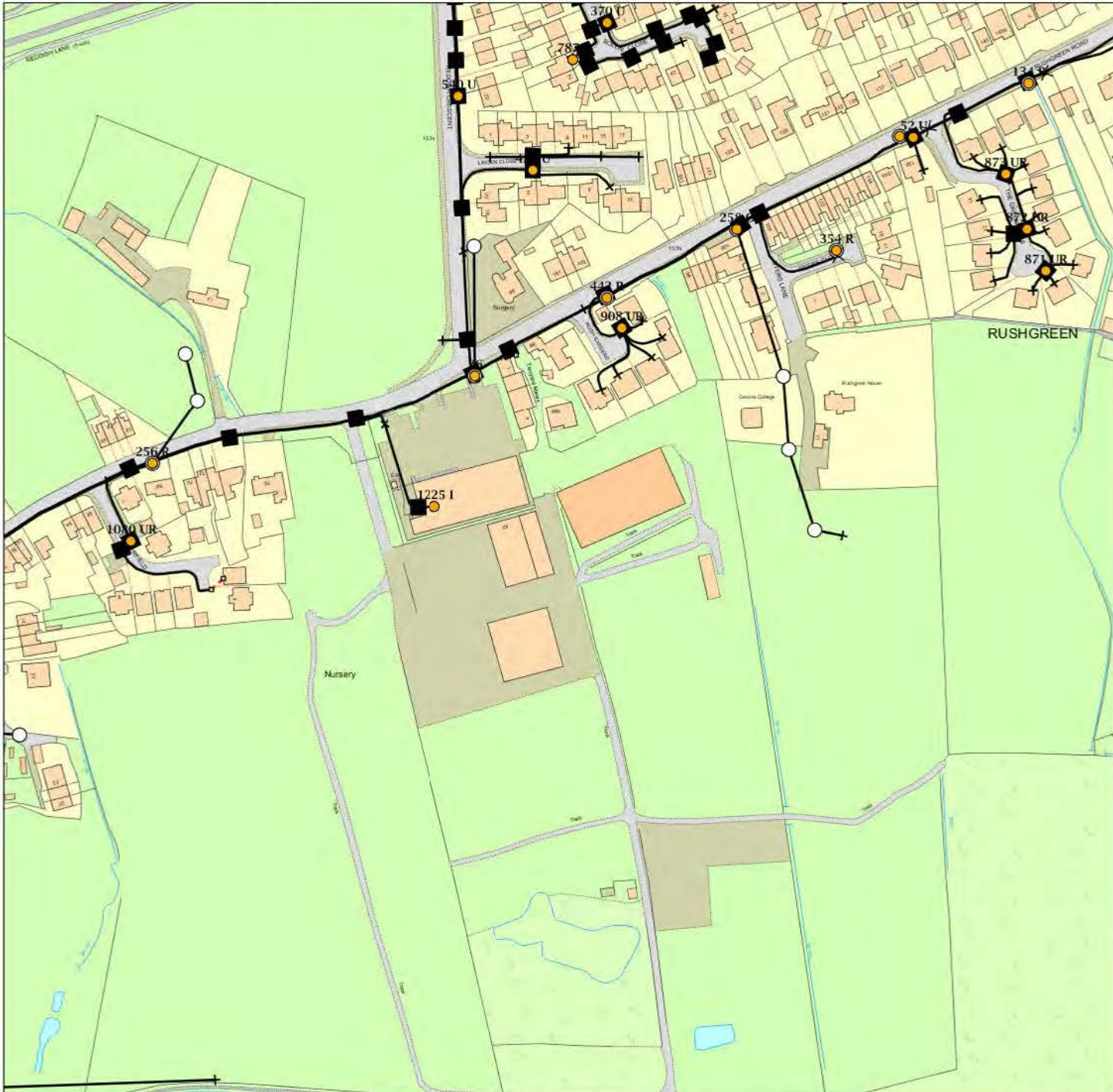
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Easting/Northing : (centre) 369148,387

Issued : 08/08/2017 11:57:10

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

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Information valid at time of preparation

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BT Ref : IDB11572L

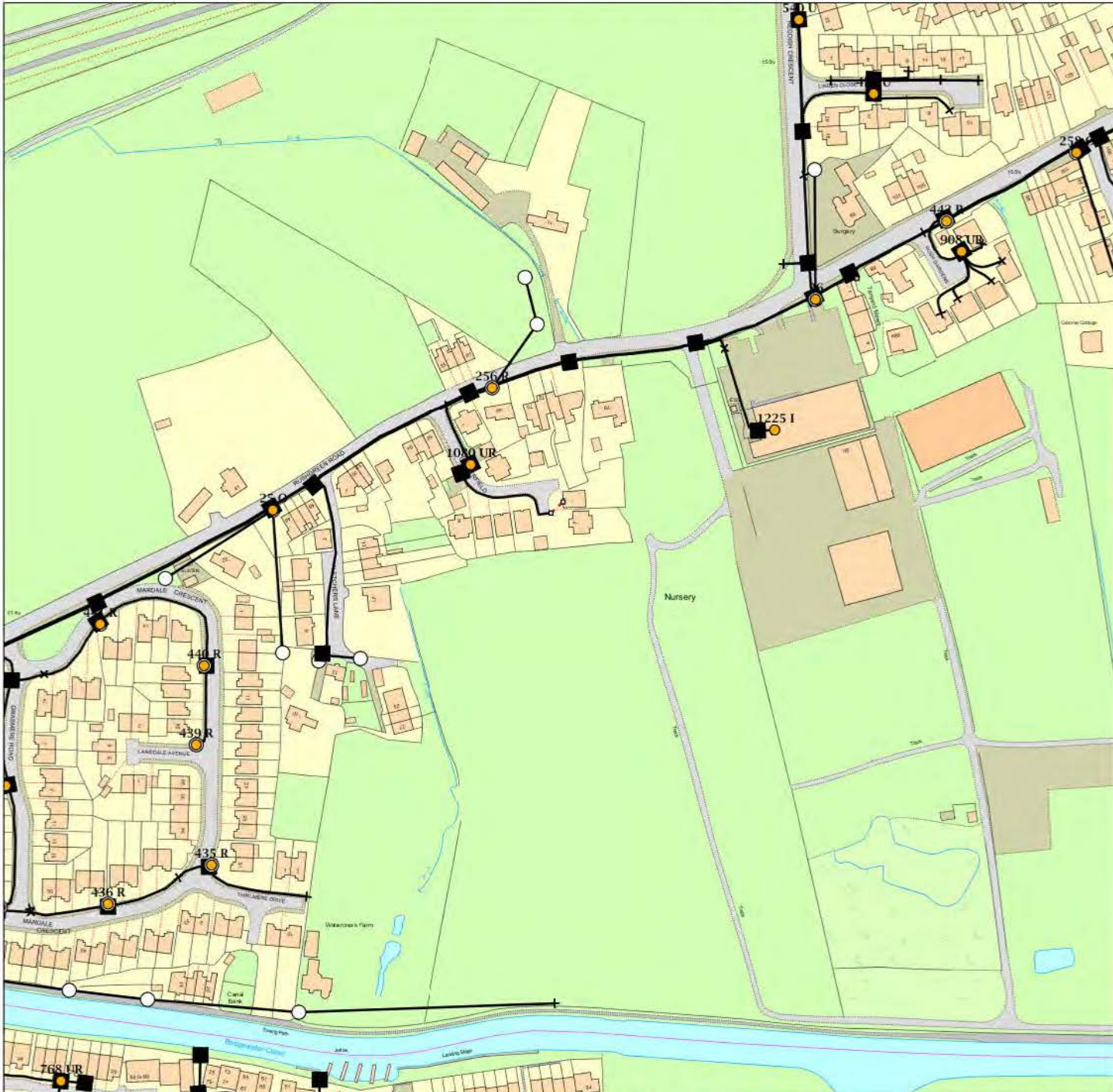
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Easting/Northing : (centre) 369009,3876

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

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Information valid at time of preparation

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BT Ref : TPA11581S

Map Reference : (centre) SJ6885687618

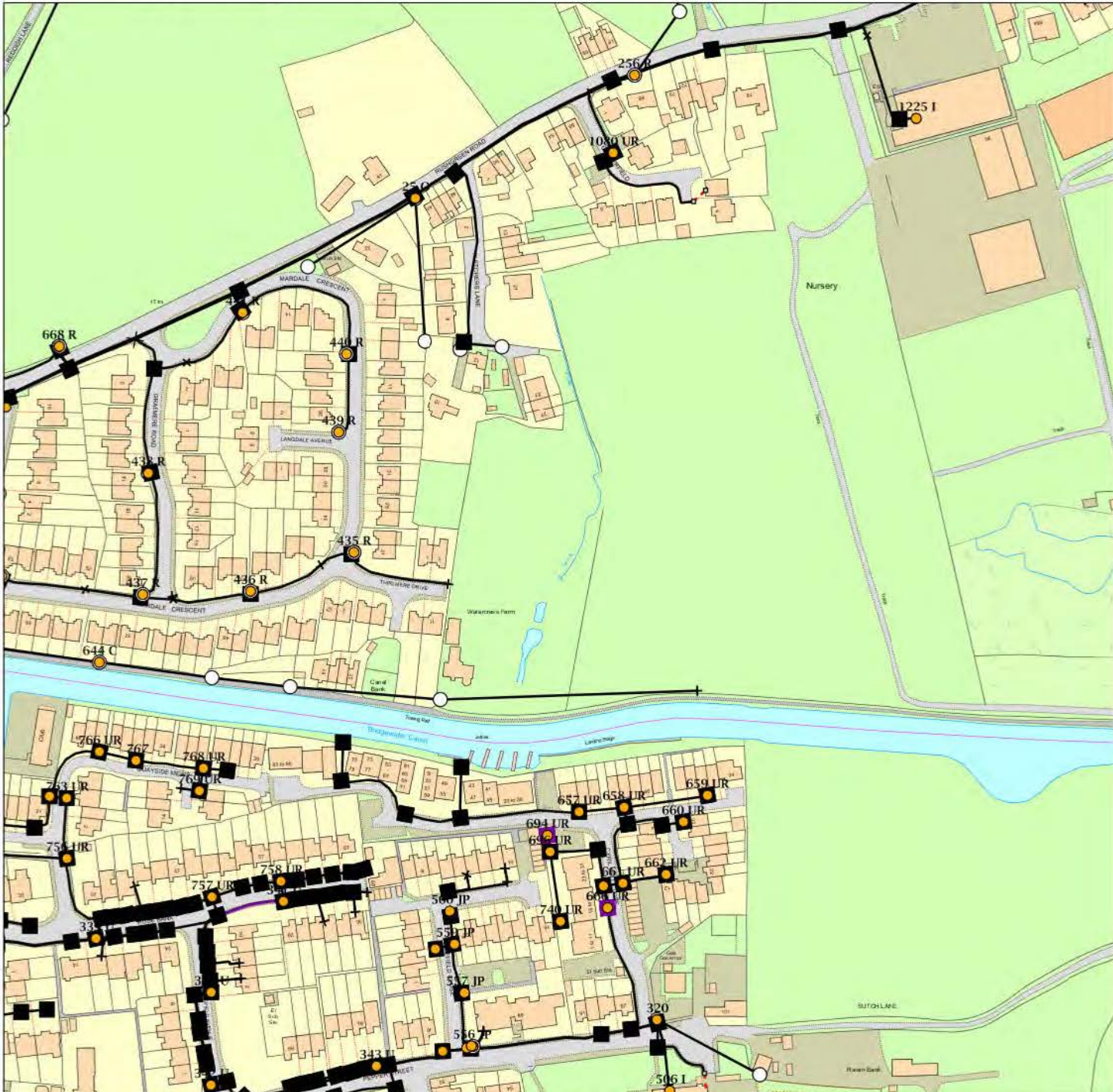
Easting/Northing : (centre) 368856,3876

Issued : 08/08/2017 11:58:24

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

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Information valid at time of preparation

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BT Ref : REK115 13W

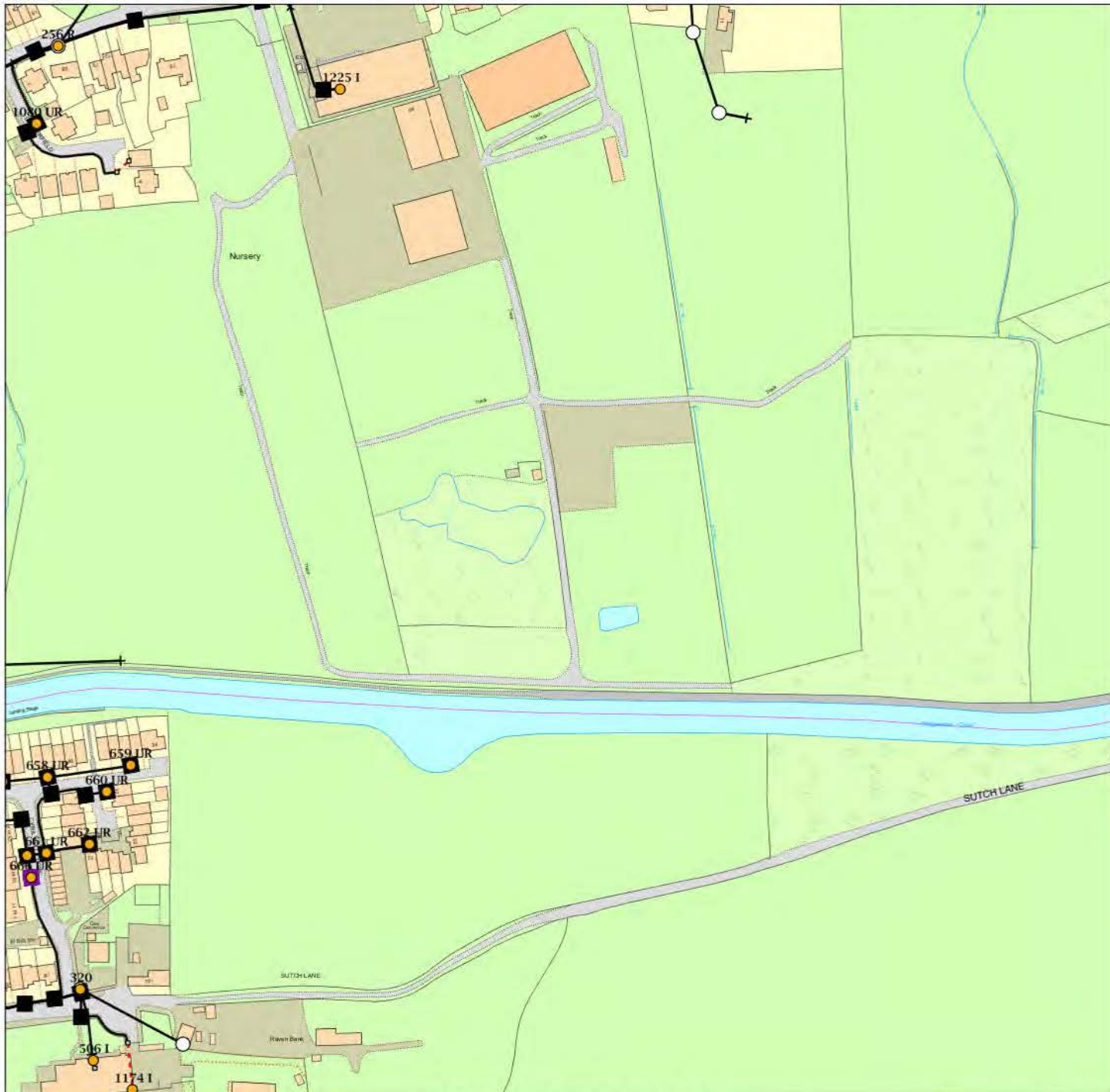
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Easting/Northing : (centre) 368792,387475

Issued : 08/08/2017 11:51:27

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## KEY TO BT SYMBOLS

|             |  |                 |  |
|-------------|--|-----------------|--|
| DP          |  | Pole            |  |
| Planned DP  |  | Planned Pole    |  |
| PCP         |  | Joint Box       |  |
| Planned PCP |  | Change Of State |  |
| Built       |  | Split Coupling  |  |
| Planned     |  | Duct Tee        |  |
| Inferred    |  | Planned Box     |  |
| Building    |  | Manhole         |  |
| Kiosk       |  | Planned Manhole |  |
| Hatchings   |  | Cabinet         |  |
|             |  | Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
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Existing BT Plant may not be recorded.  
Information valid at time of preparation

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a BT Group business

BT Ref : ETE11526P

Map Reference : (centre) SJ6905287461

Easting/Northing : (centre) 369052,387461

Issued : 08/08/2017 11:52:33

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**

# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



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a BT Group business

### CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email [cbyd@openreach.co.uk](mailto:cbyd@openreach.co.uk)

ADVANCE NOTICE REQUIRED  
(Office hours: Monday - Friday 08.00 to 17.00)  
[www.openreach.co.uk/cbyd](http://www.openreach.co.uk/cbyd)

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## KEY TO BT SYMBOLS

|             |  |                 |  |
|-------------|--|-----------------|--|
| DP          |  | Pole            |  |
| Planned DP  |  | Planned Pole    |  |
| PCP         |  | Joint Box       |  |
| Planned PCP |  | Change Of State |  |
| Built       |  | Split Coupling  |  |
| Planned     |  | Duct Tee        |  |
| Inferred    |  | Planned Box     |  |
| Building    |  | Manhole         |  |
| Kiosk       |  | Planned Manhole |  |
| Hatchings   |  | Cabinet         |  |
|             |  | Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

openreach  
a BT Group business

BT Ref : WTU11533K

Map Reference : (centre) SJ6935487515

Easting/Northing : (centre) 369354,3875

Issued : 08/08/2017 11:53:40

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**

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## KEY TO BT SYMBOLS

|             |  |                 |  |
|-------------|--|-----------------|--|
| DP          |  | Pole            |  |
| Planned DP  |  | Planned Pole    |  |
| PCP         |  | Joint Box       |  |
| Planned PCP |  | Change Of State |  |
| Built       |  | Split Coupling  |  |
| Planned     |  | Duct Tee        |  |
| Inferred    |  | Planned Box     |  |
| Building    |  | Manhole         |  |
| Kiosk       |  | Planned Manhole |  |
| Hatchings   |  | Cabinet         |  |
|             |  | Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

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a BT Group business

BT Ref : EJR11536C

Map Reference : (centre) SJ6956487556

Easting/Northing : (centre) 369564,3875

Issued : 08/08/2017 11:54:01

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**

# Maps by email Plant Information Reply



## IMPORTANT WARNING

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### CLICK BEFORE YOU DIG

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

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a BT Group business

BT Ref : ADQ11542Q

Map Reference : (centre) SJ696968763 1

Easting/Northing : (centre) 369696,3876

Issued : 08/08/2017 11:54:49

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**

# Maps by email Plant Information Reply



## IMPORTANT WARNING

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### CLICK BEFORE YOU DIG

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[www.openreach.co.uk/cbyd](http://www.openreach.co.uk/cbyd)

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## KEY TO BT SYMBOLS

|             |  |
|-------------|--|
| DP          |  |
| Planned DP  |  |
| PCP         |  |
| Planned PCP |  |
| Built       |  |
| Planned     |  |
| Inferred    |  |
| Building    |  |
| Kiosk       |  |
| Hatchings   |  |

|                 |  |
|-----------------|--|
| Pole            |  |
| Planned Pole    |  |
| Joint Box       |  |
| Change Of State |  |
| Split Coupling  |  |
| Duct Tee        |  |
| Planned Box     |  |
| Manhole         |  |
| Planned Manhole |  |
| Cabinet         |  |
| Planned Cabinet |  |

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

openreach  
a BT Group business

BT Ref : CGA11557F

Map Reference : (centre) SJ6944287671

Easting/Northing : (centre) 369442,3876

Issued : 08/08/2017 11:55:16

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**



Shepherd Gilmour  
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

[www.shepherd-gilmour.co.uk](http://www.shepherd-gilmour.co.uk)

# APPENDIX F

Natalia Marsden  
Shepherd Gilmour Infrastructure  
4th Floor Colchester House  
40 Peter Street  
Manchester  
Manchester  
Greater Manchester  
M2 5GP

**Date:** 09/08/2017

**Our Ref:** NW\_TW\_Z1\_3SWX\_353164

**Your Ref:** Lymm East

**RE: Proposed Works, Land at Rushgreen Road Lymm East**

Thank you for your enquiry which was received on 09/08/2017.  
Please note this response and any attached map(s) are valid for 28 days.

An assessment has been carried out with respect to Cadent Gas Ltd, National Grid Electricity Transmission plc's and National Grid Gas plc's apparatus. Please note it does not cover the items listed in the section "Your Responsibilities and Obligations", including gas service pipes and related apparatus.  
For details of Network areas please see the Cadent website (<http://cadentgas.com/Digging-safely/Dial-before-you-dig>) or the enclosed documentation.

**As your works are at a "proposed" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Scheduled Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. Plant Protection will endeavour to provide an initial assessment within 14 days of receipt of a Scheduled Works enquiry and dependent on the outcome of this, further consultation may be required.**

**In any event, for safety and legal reasons, works must not be carried out until a Scheduled Works enquiry has been completed and final response received.**

Plant Protection  
Cadent  
Block 1; Floor 1  
Brick Kiln Street  
Hinckley  
LE10 0NA  
E-mail: [plantprotection@cadentgas.com](mailto:plantprotection@cadentgas.com)  
Telephone: +44 (0)800 688588

**National Gas Emergency Number:  
0800 111 999\***

**National Grid Electricity Emergency Number:  
0800 40 40 90\***

\* Available 24 hours, 7 days/week.  
Calls may be recorded and monitored.

[www.cadentgas.com](http://www.cadentgas.com)



## Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near Cadent and/or National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to Cadent Gas Ltd, National Grid Electricity Transmission plc (NGET) and National Grid Gas plc (NGG) and apparatus. This assessment does **NOT** include:

- Cadent and/or National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to Cadent and/or National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Plant Protection.
- Gas service pipes and related apparatus
- Recently installed apparatus
- Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities. Further "Essential Guidance" in respect of these items can be found on the National Grid Website (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>).

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to Cadent and/or National Grid's easements or wayleaves nor any planning or building regulations applications.

Cadent Gas Ltd, NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the Plant Protection team via e-mail ([click here](#)) or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

# ASSESSMENT

## Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

High or Intermediate pressure (above 2 bar) Gas Pipelines and associated equipment  
Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)  
Above ground gas sites and equipment

## Requirements

**BEFORE carrying out any work you must:**

**Note the presence of an Above Ground Installation (AGI) in proximity to your site. You must ensure that you have been contacted by Cadent and/or National Grid prior to undertaking any works within 10m of this site.**

Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.

Contact the landowner and ensure any proposed works in private land do not infringe Cadent and/or National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.

Ensure that all persons, including direct labour and contractors, working for you on or near Cadent and/or National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at <http://www.hse.gov.uk>

In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

# GUIDANCE

## **High Pressure Gas Pipelines Guidance:**

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of Cadent and/or National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties' (SSW22). This can be obtained from: <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968>

## **Dial Before You Dig Pipelines Guidance:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33969>

## **Excavating Safely - Avoiding injury when working near gas pipes:**

[http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe\\_leaflet3e2finalamends061207.pdf](http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf)

## Standard Guidance

### **Essential Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

### **General Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

### **Excavating Safely in the vicinity of gas pipes guidance (Credit card):**

<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>

### **Excavating Safely in the vicinity of electricity cables guidance (Credit card):**

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:

<http://www.nationalgrid.com/uk/Gas/Safety/work/downloads/>



|                          |  |                           |  |   |  |   |  |  |  |
|--------------------------|--|---------------------------|--|---|--|---|--|--|--|
| ID: NW_TW_Z1_3SWX_353164 |  | View extent: 2060m, 1220m |  | <b>Map not to be used for construction</b>  |  | Map 1 of 1 (GAS)  |  |  |  |
| USER: nmarsden           |  |                           |  | <p>This plan shows those pipes owned by National Grid Gas plc in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p> |  | MAPS Plot Server Version 1.9.0  |  |  |  |
| DATE: 09/08/2017         |  |                           |  |   |  |   |  |  |  |
| DATA DATE: 08/08/2017    |  |                           |  |   |  |   |  |  |  |
| REF: Lymm East           |  |                           |  |   |  | This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886 |  |  |  |
| MAP REF: SJ6987          |  |                           |  |   |  |   |  |  |  |
| CENTRE: 369607, 387680   |  |                           |  |   |  |   |  |  |  |

# ENQUIRY SUMMARY

## Received Date

09/08/2017

## Your Reference

Lymm East

## Location

Centre Point: 369607, 387680

X Extent: 755

Y Extent: 610

Postcode: WA13 9RH

Location Description: Land at Rushgreen Road Lymm East

## Map Options

Paper Size: A3

Orientation: LANDSCAPE

Requested Scale: 2500

Actual Scale: 1:5000 (GAS)

Real World Extents: 2060m x 1220m (GAS)

## Recipients

nmarsden@sgiconsulting.co.uk

## Enquirer Details

Organisation Name: Shepherd Gilmour Infrastructure

Contact Name: Natalia Marsden

Email Address: nmarsden@sgiconsulting.co.uk

Telephone: 01618371500

Address: 4th Floor Colchester House, 40 Peter Street, Manchester, Manchester, Greater Manchester, M2 5GP

## Description of Works

Currently only in the initial planning stages for potential residential development

## Enquiry Type

Proposed Works

## Activity Type

Development Project

## Work Types

Work Type: Plans Only

Natalia Marsden  
Shepherd Gilmour Infrastructure  
4th Floor Colchester House  
40 Peter Street  
Manchester  
Manchester  
Greater Manchester  
M2 5GP

**Date:** 09/08/2017

**Our Ref:** NW\_TW\_Z1\_3SWX\_353172

**Your Ref:** Lymm West

**RE: Proposed Works, Land at Rush Green Road, Lymm West**

Thank you for your enquiry which was received on 09/08/2017.  
Please note this response and any attached map(s) are valid for 28 days.

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Cadent  
Block 1; Floor 1  
Brick Kiln Street  
Hinckley  
LE10 0NA  
E-mail: [plantprotection@cadentgas.com](mailto:plantprotection@cadentgas.com)  
Telephone: +44 (0)800 688588

**National Gas Emergency Number:  
0800 111 999\***

**National Grid Electricity Emergency Number:  
0800 40 40 90\***

\* Available 24 hours, 7 days/week.  
Calls may be recorded and monitored.

[www.cadentgas.com](http://www.cadentgas.com)

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- Recently installed apparatus
- Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

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Cadent Gas Ltd, NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

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Yours faithfully

Plant Protection Team

# ASSESSMENT

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# GUIDANCE

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## **Dial Before You Dig Pipelines Guidance:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33969>

## **Excavating Safely - Avoiding injury when working near gas pipes:**

[http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe\\_leaflet3e2finalamends061207.pdf](http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf)

## **Standard Guidance**

### **Essential Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

### **General Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

### **Excavating Safely in the vicinity of gas pipes guidance (Credit card):**

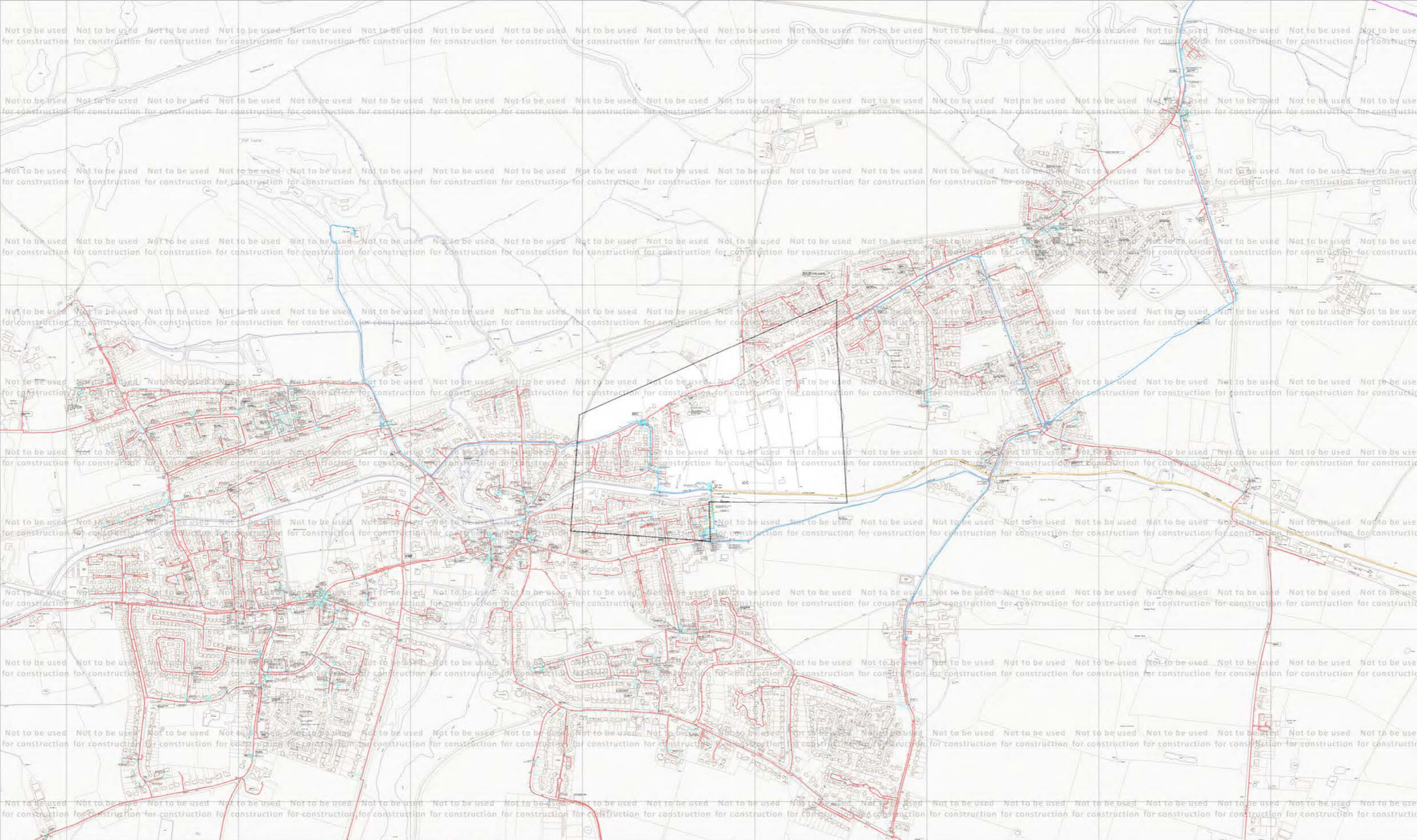
<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>














### **Excavating Safely in the vicinity of electricity cables guidance (Credit card):**

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:

<http://www.nationalgrid.com/uk/Gas/Safety/work/downloads/>



|                          |  |   |  |  |  |   |  |
|--------------------------|--|---|--|--|--|---|--|
| ID: NW_TW_Z1_3SWX_353172 |  | View extent: 4120m, 2440m   |  | <b>Map not to be used for construction</b>   |  | Map 1 of 1 (GAS)  |  |
| USER: nmarsden           |  | LP MAINS <br>MP MAINS <br>IP MAINS <br>LHP MAINS <br>NHP MAINS   |  | This plan shows those pipes owned by National Grid Gas plc in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue. |  | MAPS Plot Server Version 1.9.0<br><br><br>Your Gas Network<br>Requested by: Shepherd Gilmour Infrastructure              |  |
| DATE: 09/08/2017         |  | 0m  200m<br>Approximate scale 1:10000<br>on A3 Colour Landscape  |  |  |  | This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886 |  |
| DATA DATE: 08/08/2017    |  | Some examples of Plant Items:<br>Valve  Depth of Cover  Syphon  Diameter Change  Material Change  Out of Standard Service  |  |  |  |   |  |
| REF: Lymm West           |  |   |  |  |  |   |  |
| MAP REF: SJ6887          |  |   |  |  |  |   |  |
| CENTRE: 368867, 387607   |  |   |  |  |  |   |  |

# ENQUIRY SUMMARY

## Received Date

09/08/2017

## Your Reference

Lymm West

## Location

Centre Point: 368867, 387606

X Extent: 805

Y Extent: 705

Postcode: WA13 9RH

Location Description: Land at Rush Green Road, Lymm West

## Map Options

Paper Size: A3

Orientation: LANDSCAPE

Requested Scale: 10000

Actual Scale: 1:10000 (GAS)

Real World Extents: 4120m x 2440m (GAS)

## Recipients

nmarsden@sgiconsulting.co.uk

## Enquirer Details

Organisation Name: Shepherd Gilmour Infrastructure

Contact Name: Natalia Marsden

Email Address: nmarsden@sgiconsulting.co.uk

Telephone: 01618371500

Address: 4th Floor Colchester House, 40 Peter Street, Manchester, Manchester, Greater Manchester, M2 5GP

## Description of Works

Currently only in the initial planning stages for potential residential development- west of the site

## Enquiry Type

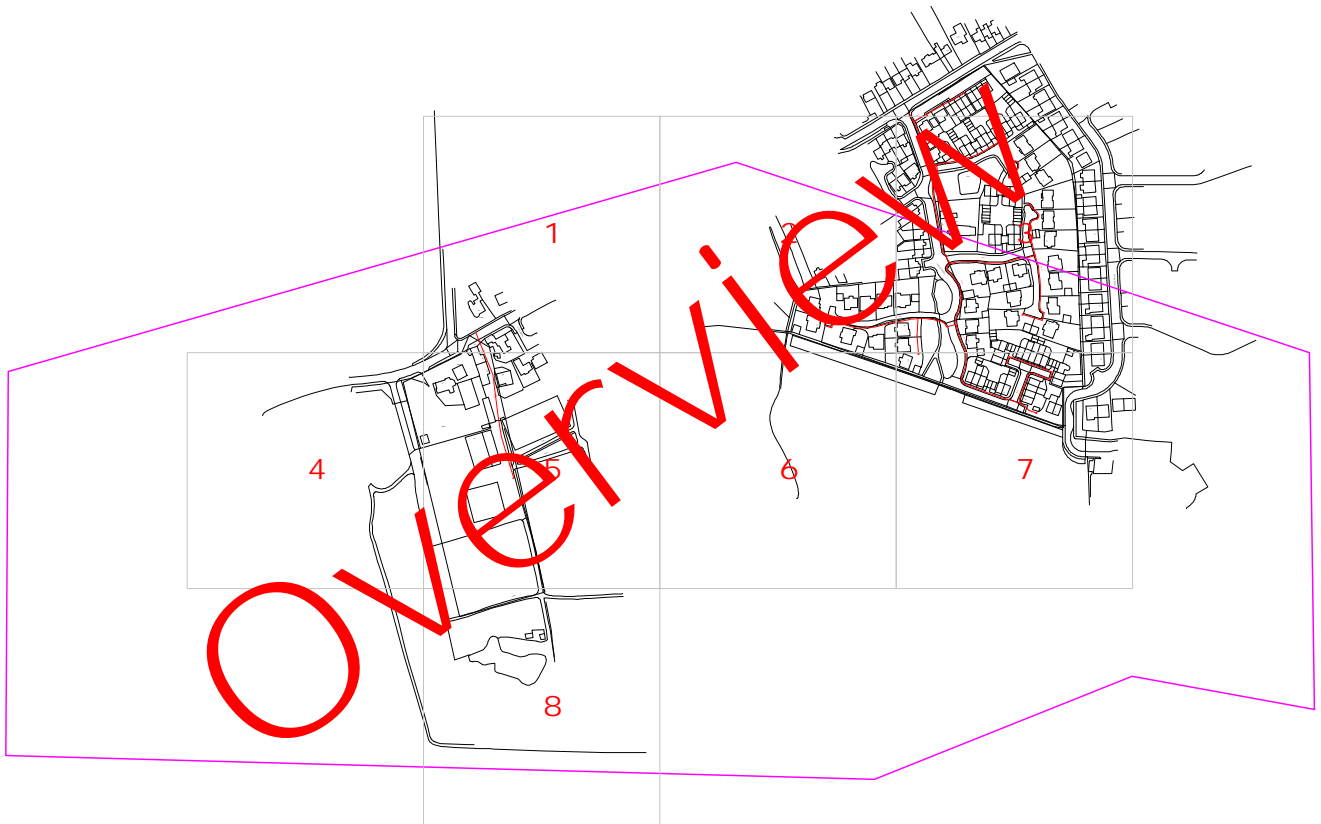
Proposed Works

## Activity Type

Development Project

## Work Types

Work Type: Plans Only



Date Requested: 08/08/2017

Requested by: Shepherd Gilmour

Job Reference: 10979229

Company: Shepherd Gilmour Infrastructure L<sup>t</sup>

Your Scheme/Reference: Land at Rush Gre

**Key for Mains & Service Pipework**



Existing LP mains or services operating up to 75 millibar gauge



Existing MP mains or services operating between 75 millibar and 2 bar gauge



Existing IP mains or services operating between 2 bar and 7 bar gauge

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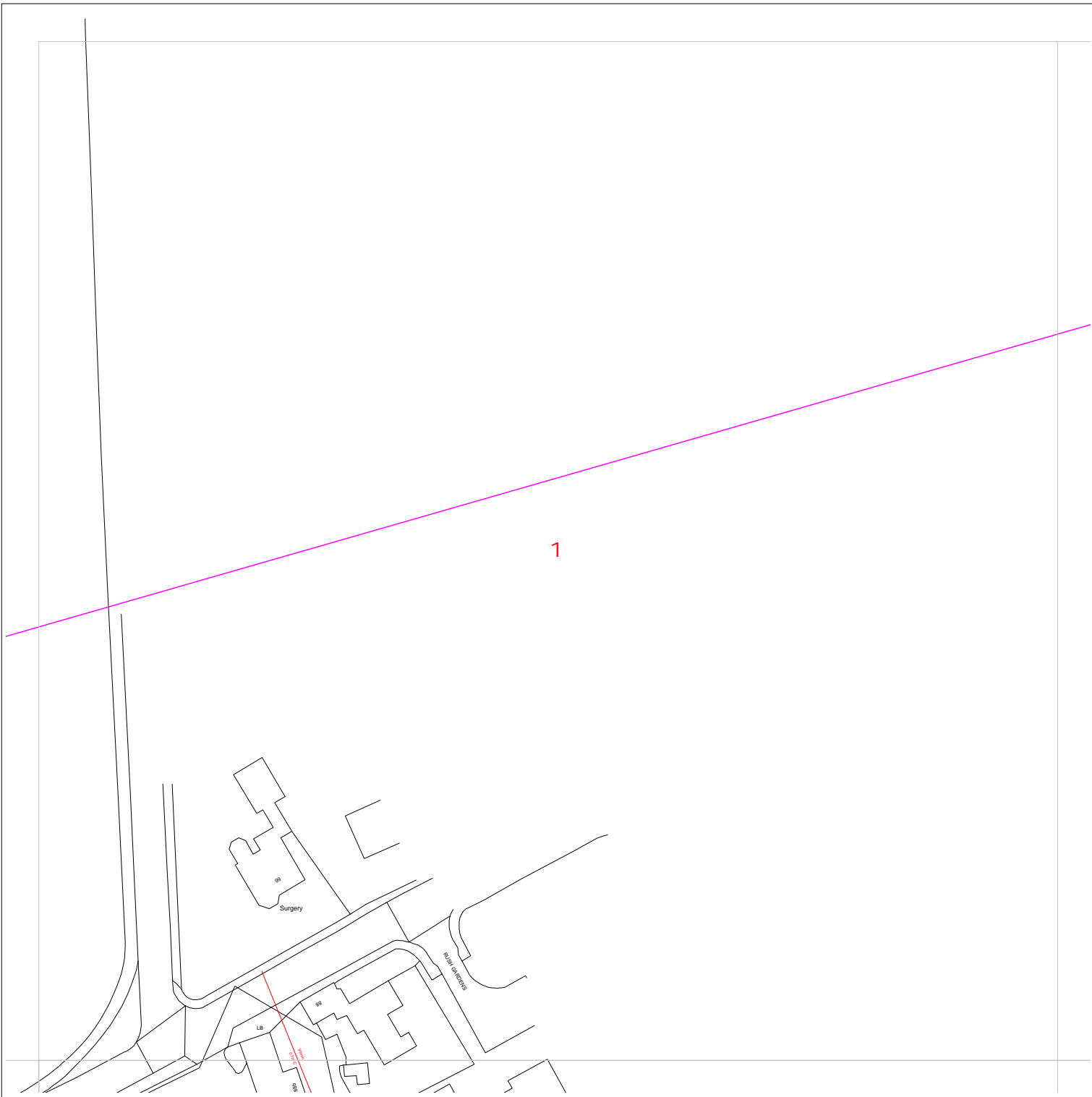


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(excluding Overview map)



Date Requested: 08/08/2017




Requested by: Shepherd Gilmour

Job Reference: 10979229

Company: Shepherd Gilmour Infrastructure L

Your Scheme/Reference: Land at Rush Gre

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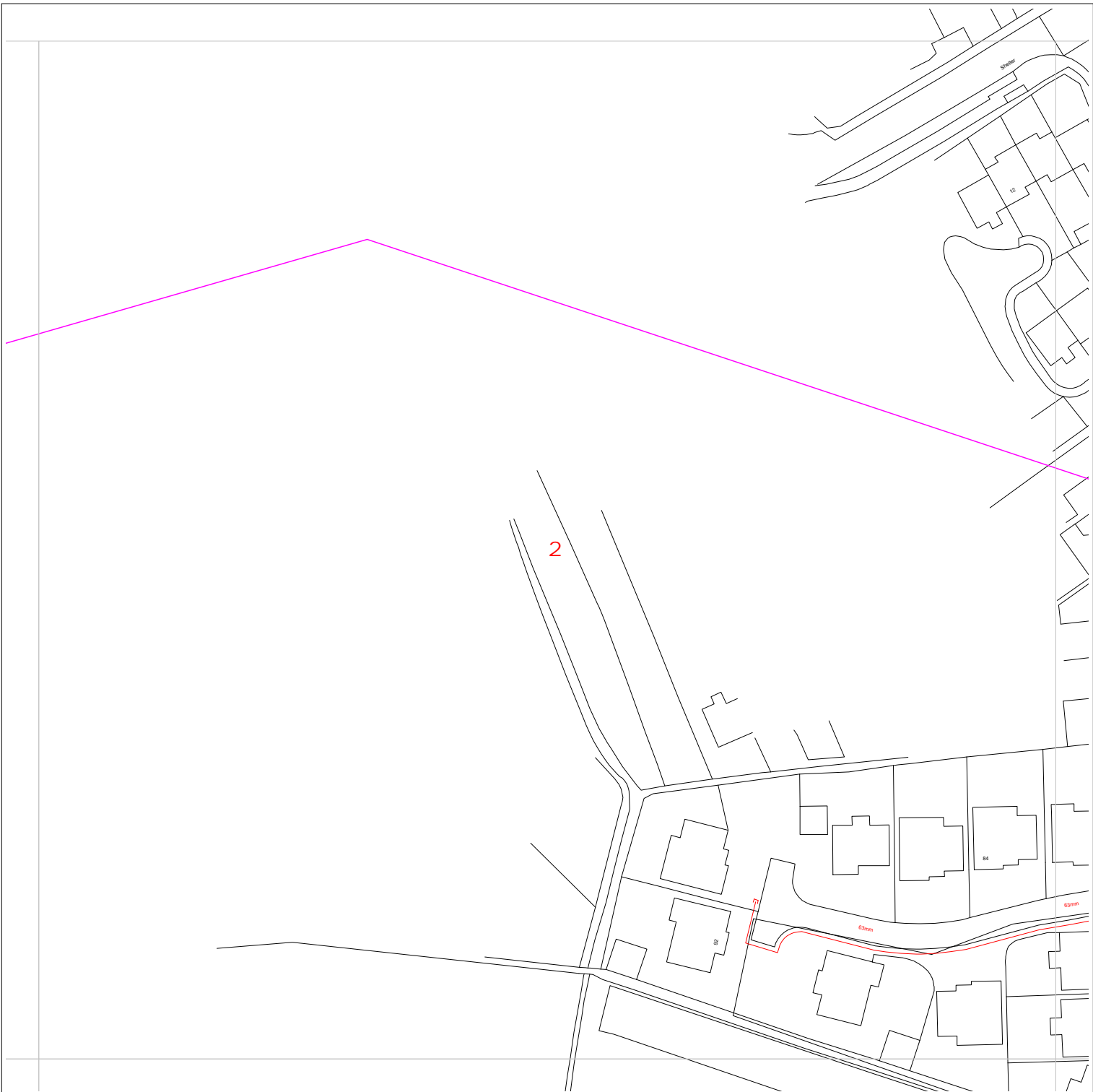
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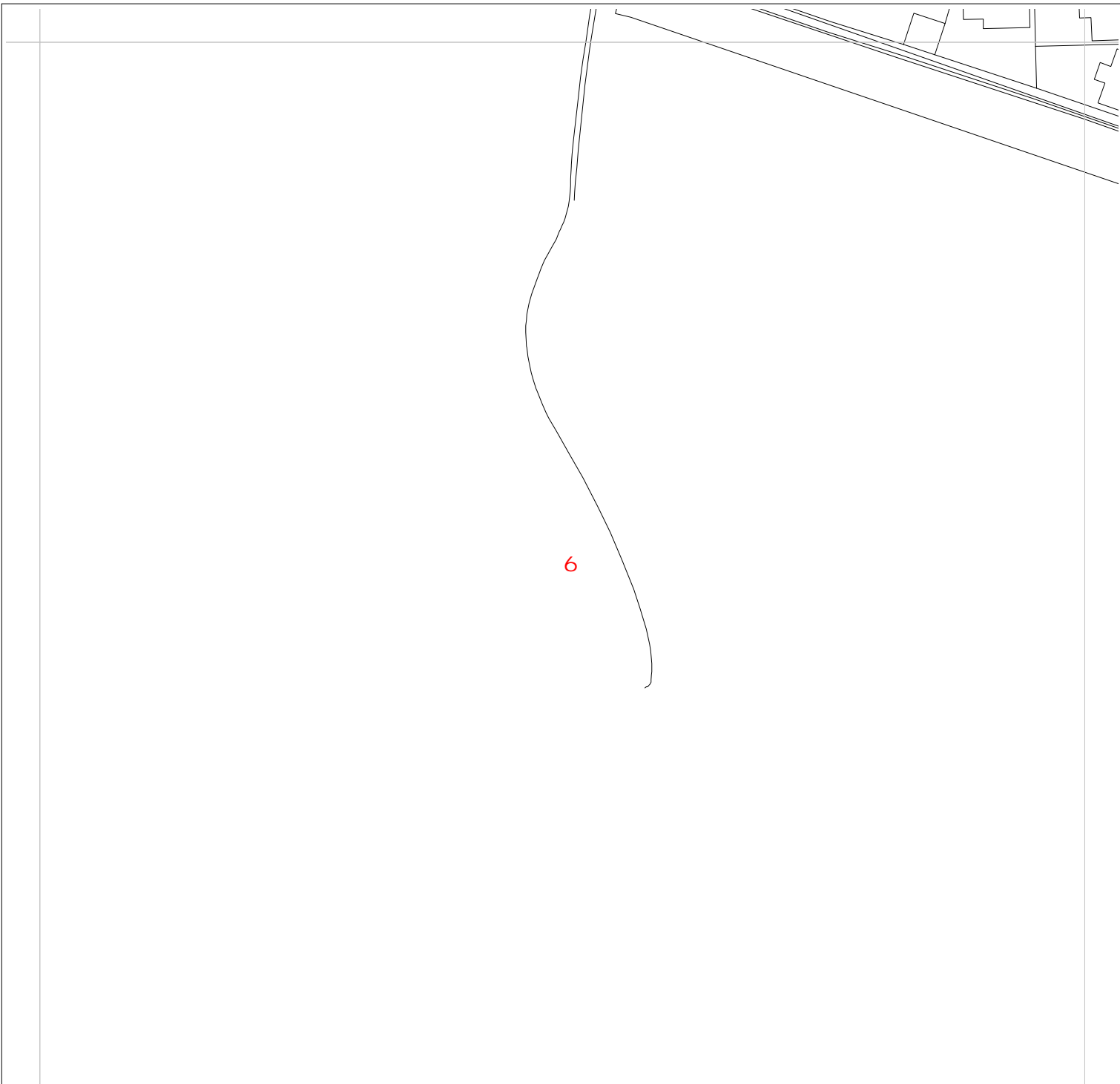
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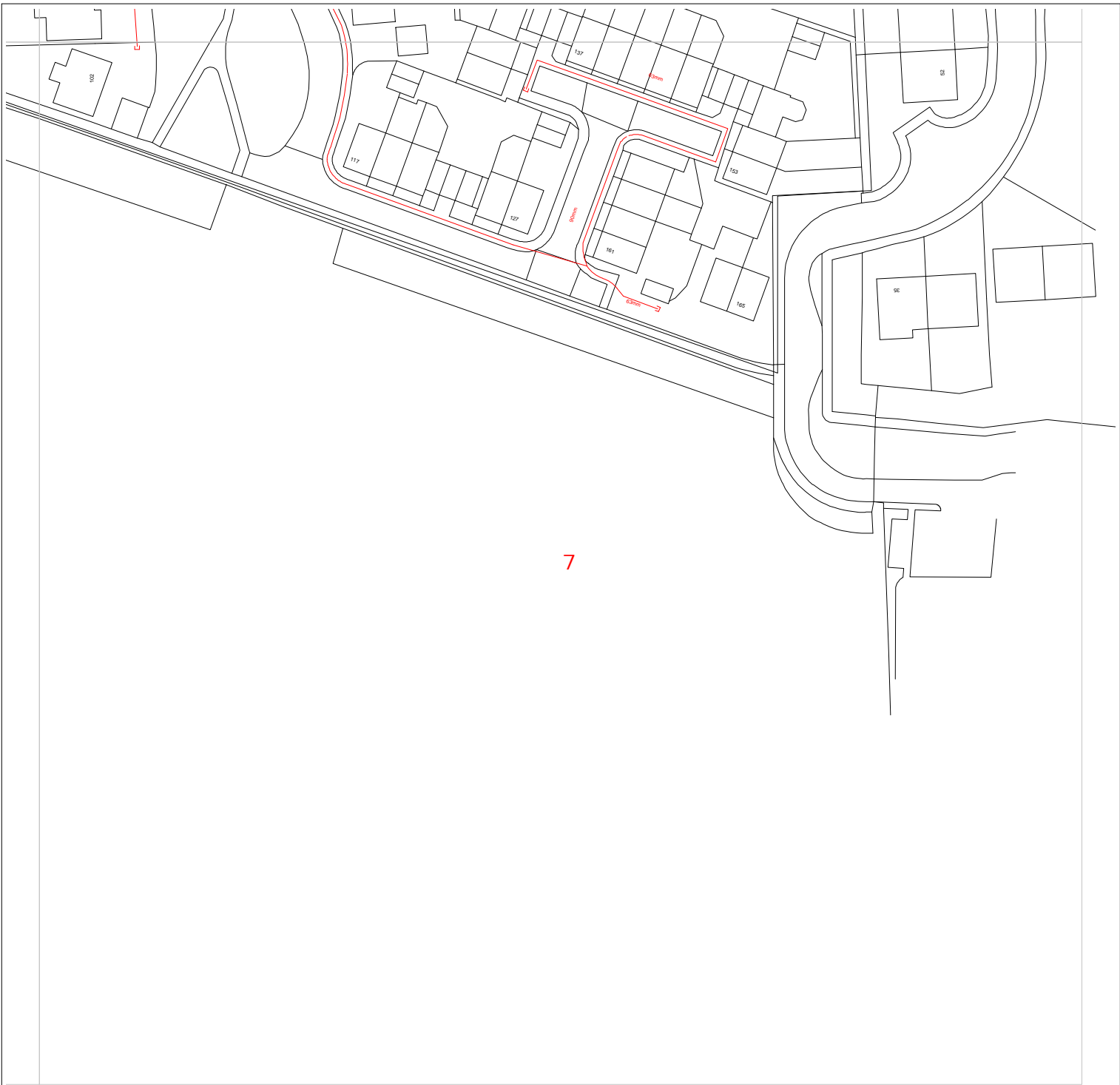
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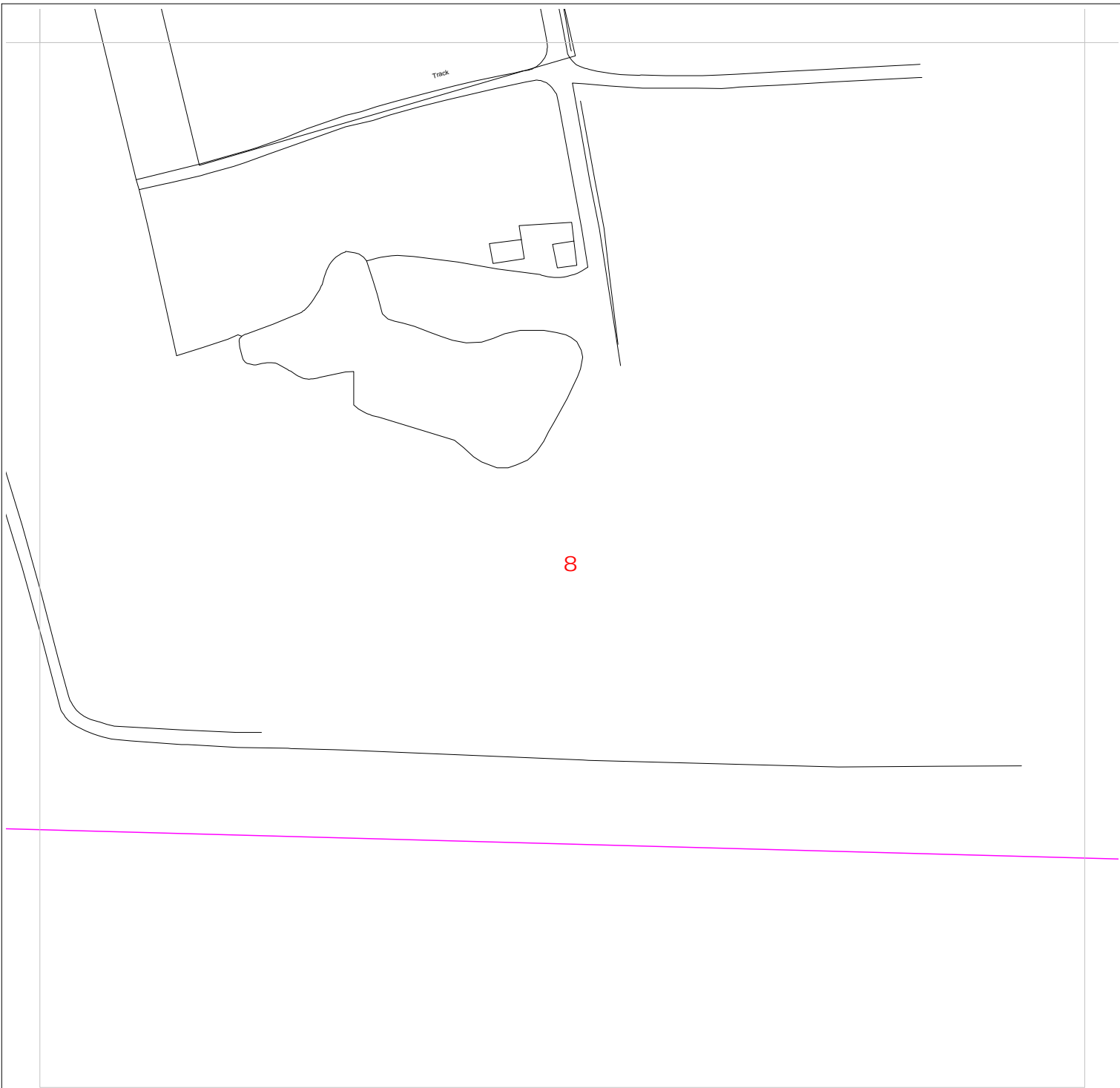
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Shepherd Gilmour  
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Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

[www.shepherd-gilmour.co.uk](http://www.shepherd-gilmour.co.uk)

# APPENDIX G

M15 4LZ

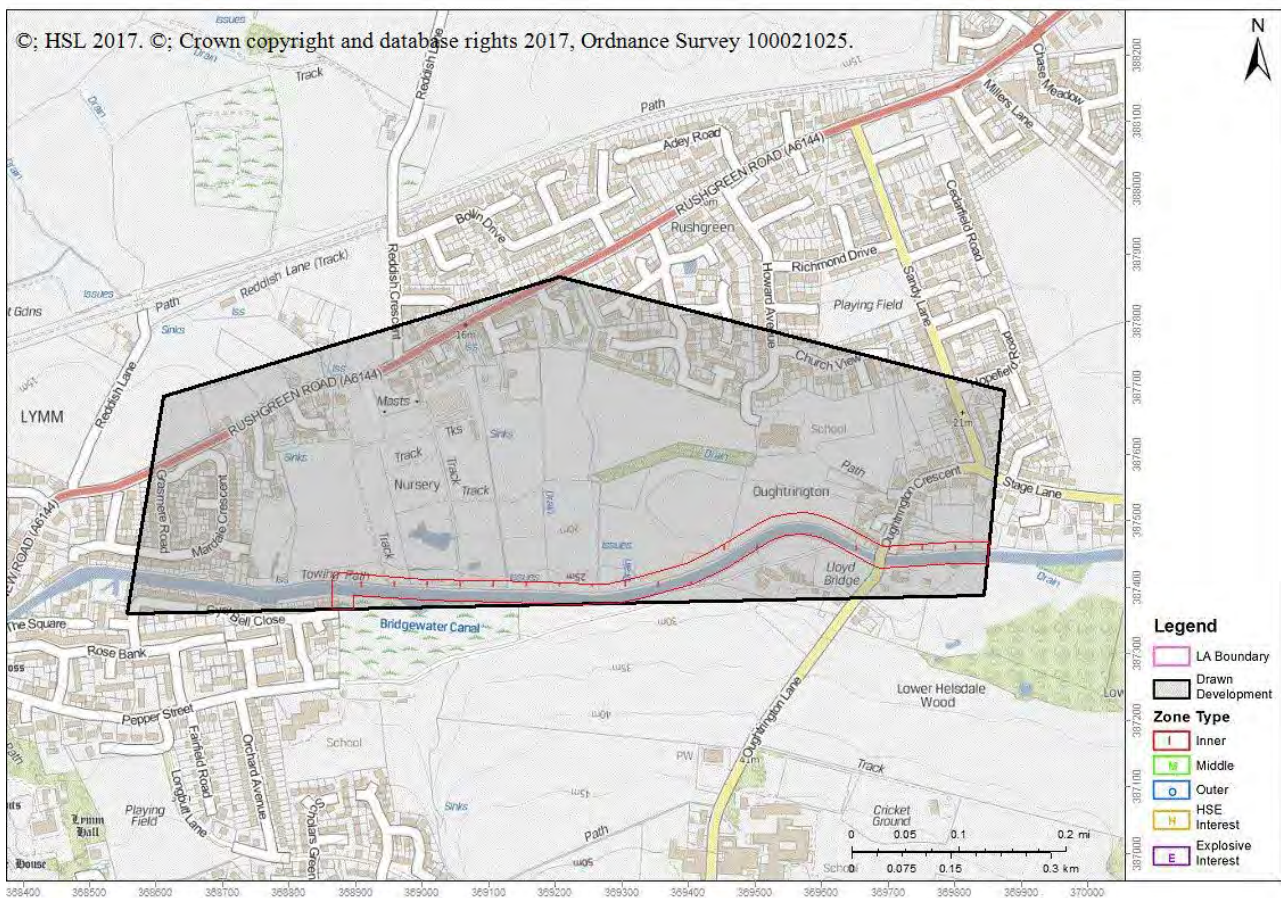
## Advice : HSL-170814103759-432 Crosses Consultation Zone

Please enter further details about the proposed development by continuing with the enquiry on the HSE's Planning Advice Web App from the Previous Enquiries tab either now or at a later time, unless the Web App has stopped the process and notified you to contact HSE.

**Your Ref:** Land at Rush Green Road, Lymm

**Development Name:**

**Comments:**



### Commercial In Confidence

The proposed development site which you have identified currently lies within the consultation distance (CD) of at least one major hazard site and/or major accident hazard pipeline; HSE needs to be consulted on any developments on this site.

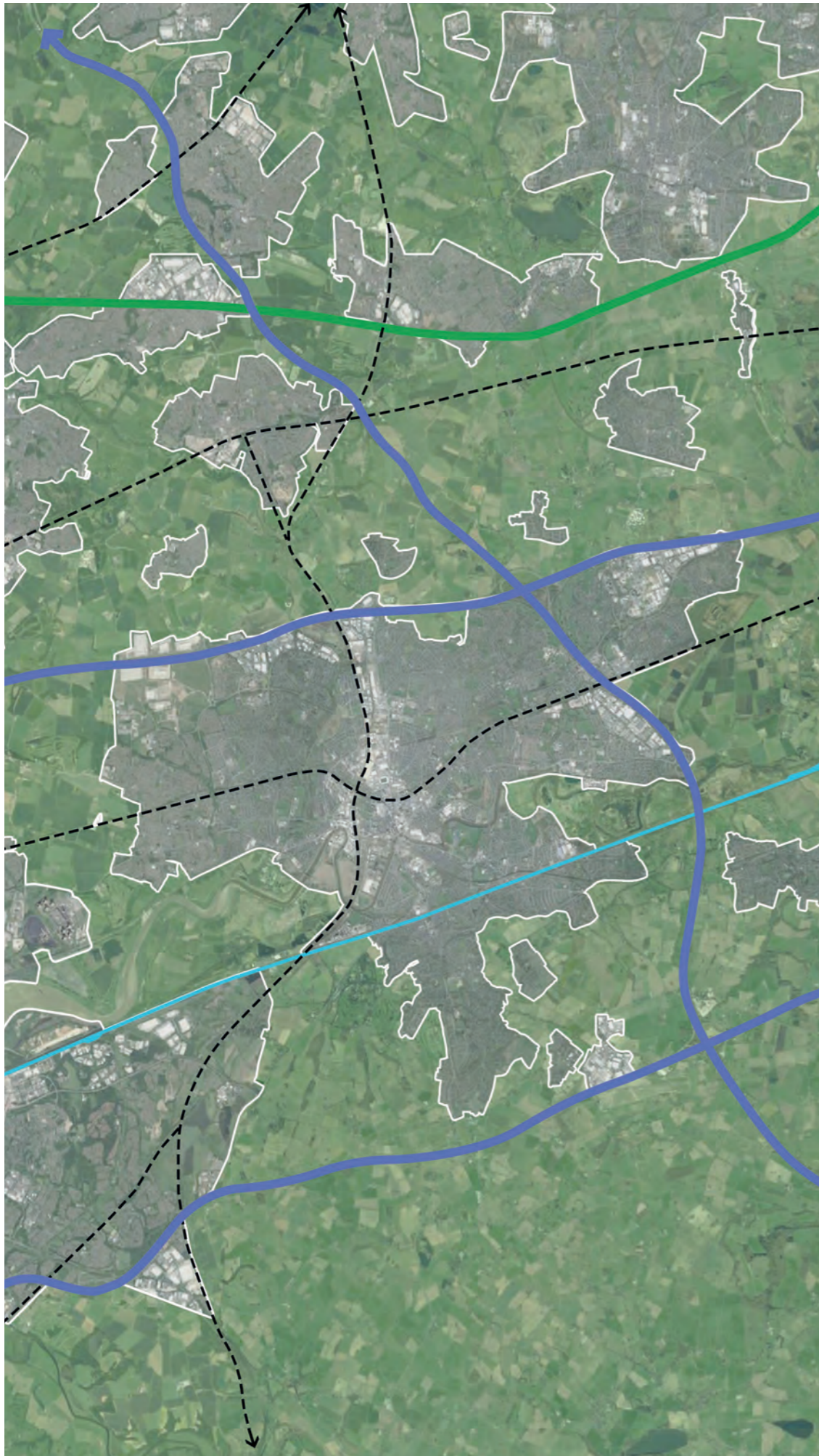
This advice report has been generated using information supplied by Dean O'Reilly at Shepherd Gilmour Infrastructure on 14 August 2017.

You will also need to contact the pipeline operator as they may have additional constraints on development near their pipeline.

- 6765\_1049 Cadent Gas Ltd

HSL/HSE accepts no liability for the accuracy of the pipeline routing data received from a 3rd party. HSE/HSL also accepts no liability if you do not consult with the pipeline operator.

You may wish to contact HSE's Planning Advice team to discuss the above enquiry result on 01298 218159 or by email at [lupenquiries@hsl.gsi.gov.uk](mailto:lupenquiries@hsl.gsi.gov.uk).



# een Road, Lymm Warrington

Landscape, Townscape and  
t  
and Development Appraisal



**RANDALL  
THORP**

June 2019





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**Randall Thorp Document Control**

Doc Reference: 630DD V6

Author(s): CAW/AL

Checker: JF

Format check: AL

Product status: Issue

QM status: Checked

Checked date: 04.06.18

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## Overview

Randall Thorp LLP has been commissioned by Peel Holdings to produce a Landscape, Townscape and Visual Sensitivity Assessment Report.

This report has been prepared in response to the proposed allocation of sites within Warrington Borough Council's Proposed Submission Version Local Plan (2019) (PSLP).

These reports will assist in demonstrating the suitability for new residential development within the outlying settlements of the Borough, and broadly appraise the suitability of these outlying settlements to accommodate new residential development in relation to landscape character, townscape character and visual sensitivity.

## Introduction

The purpose of this report is to provide an assessment of the landscape, townscape and visual sensitivity of the Lymm Road, Lymm site and demonstrates the site's ability to accommodate development in principle without undue impacts on the surrounding landscape.

This report has been prepared in response to the Warrington Borough Council Local Plan Submission Part 1 document, published in July 2017, which states that sustainable settlement extension to Lymm "could have an impact on the overall Green Belt and settlement character objectives."

The settlement of Lymm is located within the eastern part of the Borough, close to the A56. The site is located on the eastern fringes of Lymm, enclosed on three sides by residential development. The strategic location of Lymm within the Warrington Borough and the site location are shown on **Figure 1** (Page 5).

This report considers the existing character and visibility of the site. The report reviews the landscape, adjacent townscape and visual baseline in order to provide evidence to support the allocation of the site and inform the future masterplanning of the site for residential development.

An illustrative masterplan is provided to demonstrate one possible form of development or the development of the site indicated in the report.

The site is located in Landscape Character Type 3: Red Sandstone Escarpment. **Volume 1: Analysis of the Warrington Landscape Character Assessment, 2007** considers this Landscape Character Type to be suitable for new development. **Volume 2: Landscape, townscape and visual appraisal of the outlying settlements and individual SHLAA sites** considers this site suitable for development with townscape and visual sensitivity.

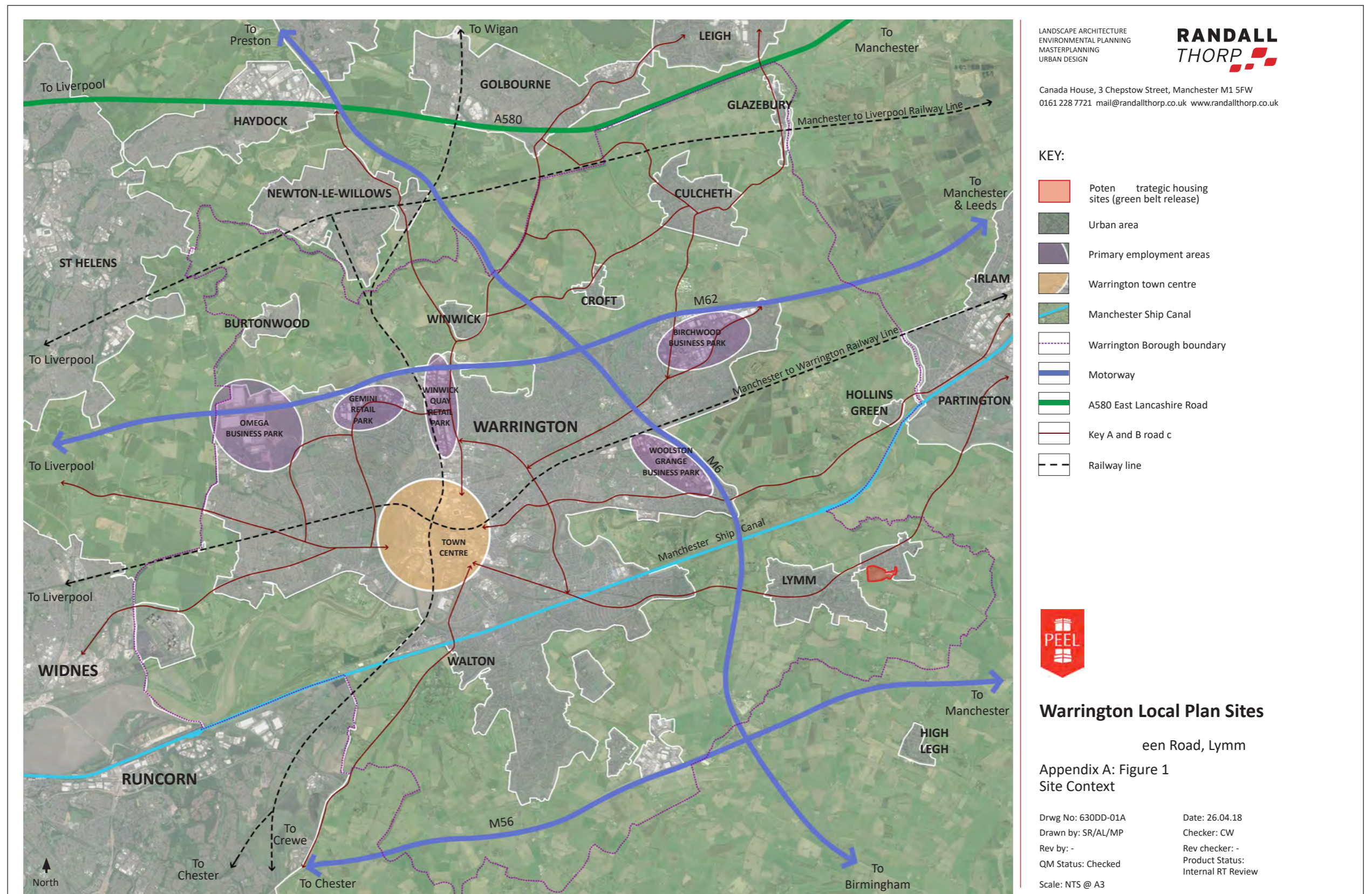


Figure 1 - Site context

## Methodology

### Guidance

This Landscape, Townscape and Visual Sensitivity Assessment has been prepared in accordance with “Guidelines for Landscape and Visual Impact Assessment” (GLVIA3), Third Edition. It explains that it is necessary to tailor Landscape and Visual Appraisals to the nature of the proposals, and that a prescriptive approach should not be applied.

### Study area

For the purposes of the report a landscape study area, which encompasses the site and its surrounding landscape and townscape context has been adopted. **Figure 2** (Page 7) illustrates the study area.

### Approach

An appropriate level of assessment has been carried out for the purposes of demonstrating that the site is suitable for allocation.

Objectives of the assessment are:

- Identify the planning policy constraints
- Consider the published Landscape Character Assessments
- An evaluation of the landscape and townscape character
- Identify visual receptors
- Describe and evaluate the existing landscape character of the site and its immediate surroundings
- Assess the landscape and townscape character and its immediate surroundings
- Advise on the development potential of the site considering the landscape and townscape character and its immediate surroundings and townscape as set out above.

### Baseline studies

The baseline study identifies the landscape, townscape and visual character and components of the site within the study area shown in **Figure 2** (Page 7).

The following documents have been reviewed as part of the desk study:

- Landscape Institute and the Institute of Environmental Management and Assessment – Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition
- Landscape Institute Townscape Character Assessment Technical Information 05/2017
- Warrington: A Landscape Character Assessment – Prepared 2007 (Warrington LCA, 2007)
- Warrington Local Plan Core Strategy – Adopted July 2014
- Warrington Borough Council PSLP (2019)
- Warrington Borough Council Local Plan – Section 10 – July 2017
- Conservation Area in Lymm Lea (December 2000)

Work was undertaken to establish an understanding of the landscape within and around the site, its component parts and subdivisions, as well as the context currently made by different areas in terms of landscape quality and character, value, green infrastructure and public realm. It also establishes the visual baseline to identify the range of views of the site, and whether there are any public viewpoints which are important in terms of appreciation and character of the site.

Photographs have been taken from publicly accessible locations to provide a visual aide memoire.

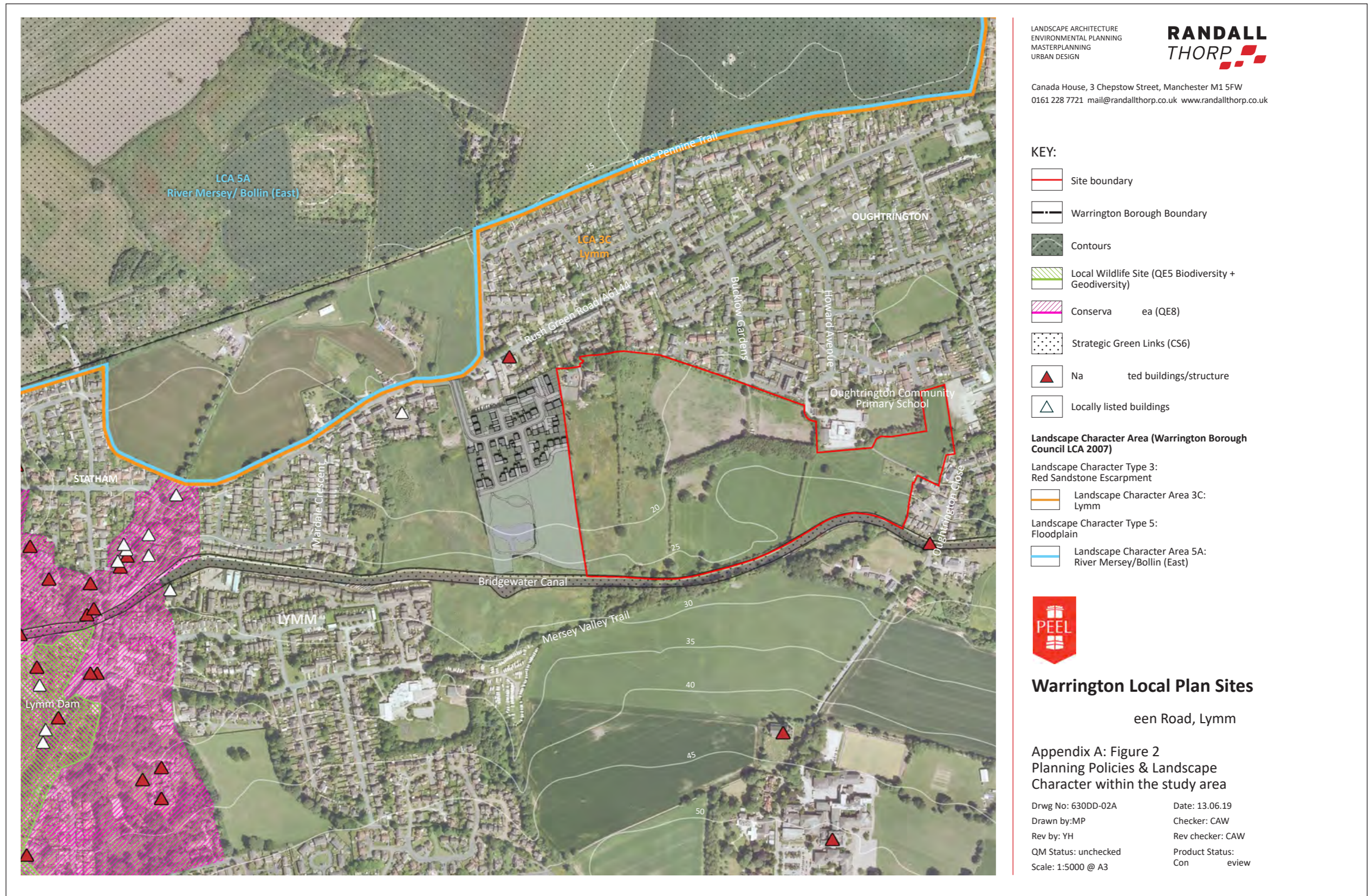


Figure 2 - Planning policies and landscape character within the study area

## Methodology for appraisal

The guidance in GLVIA3 underpins the complete process of landscape and visual impact assessment and states that the value of the landscape should be considered as part of the baseline studies. 'Landscape value' and 'susceptibility to change' are taken into account when establishing the overall appraisal prior to making an assessment of the landscape impacts. In broad terms landscape value is defined as the combined value of the landscape with its susceptibility to change.

GLVIA3 suggests two approaches to determining landscape value, the first applies to areas where there are existing landscape characteristics and where there are landscape designations in place, and the second applies when there is no existing evidence base. It goes on, however to suggest (para 5.29) that in practice the combined approaches is most effective.

In the case of this site there is a published assessment, Warrington: A Landscape Character Assessment (Warrington LCA, 2007), which sets out the key landscape characters in the Warrington Borough. This LCA does not attach any values to an individual landscape type or landscape area as part of its assessment of the 2007 landscapes within Warrington Borough.

Box 5.1 on page 84 of GLVIA lists a range of factors that are generally agreed to help in valuing landscapes.

### Box 5.1

#### Range of factors that can help in the identification of valued landscapes

- **Landscape quality (condition):** A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
- **Scenic quality:** The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses).
- **Rarity:** The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
- **Representativeness:** Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
- **Conservation interests:** The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.
- **Recreation value:** Evidence that the landscape is valued for recreational activity where experience of the landscape is important.
- **Perceptual aspects:** A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity.
- **Associations:** Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.

Based on Swanwick and Land Use Consultants (2002)

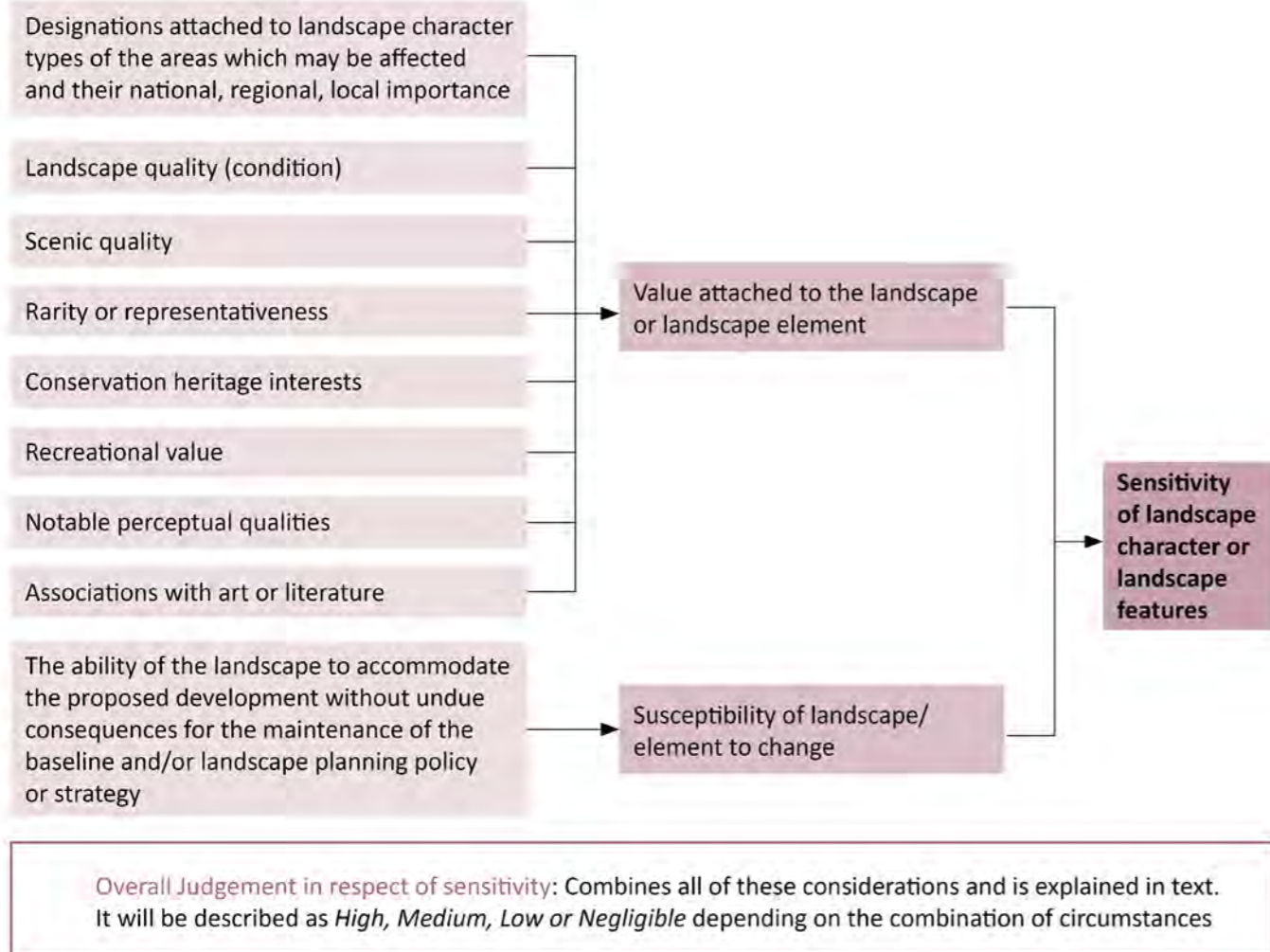
The value of the landscape is assessed in this report using a combination of considerations set out in Box 5.1 of GLVIA3 and the key characteristics identified in the Warrington LCA, 2007.

'Susceptibility to change' is defined in paragraph 5.40 of GLVIA3 which states:

*"This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of planning policies and strategies".*

The level of susceptibility to change of any landscape will depend on both its existing characteristics and the development being proposed. A landscape may have a high susceptibility to change if the elements are proposed which are completely new/alien in the context of the landscape, or where new elements would be highly visible in an open view. Likewise a landscape would have a low susceptibility to change if the site is not widely visible and the new elements proposed are already found in the existing environment.

The following diagram summarises some of the considerations for the evaluation of the landscape.



**Methodology for evaluation**

**townscape character**

Using GLVIA and the Landscape Ins e Townscape Character Assessment Technical Informa e 05/2017 (TIN) this report includes an evalua ownscape character within close proximity of the site.

Townscape is described in GLVIA3, paragraph 2.7:

*“the landscape within the built-up area, including the buildings, the relationship between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces.”*

Considera ownscape character will provide an understanding of how a place has evolved and developed ov to respond to natural, social and economic drivers; and how this is re ed in the layout of the streets, the architecture of the buildings and materials used; and the historic development of the surroundings.

A study of the historic development; movement and c urban structure and built form; heritage assets; green infrastructure and public realm and tranquillity has been carried out in order to evaluate the townscape relevant to the site and surrounding area.

This evalua ovide an understanding of the intrinsic charact an be used as a guide to the loca ale, massing and type of development that can be accommodated. A townscape character assessment can form the basis for assessing the e ects of change and whether a new development is appropriate in its context.



## Methodology for appraisal

## Receptors

In line with GLVIA a visual appraisal has been carried out to identify the receptors.

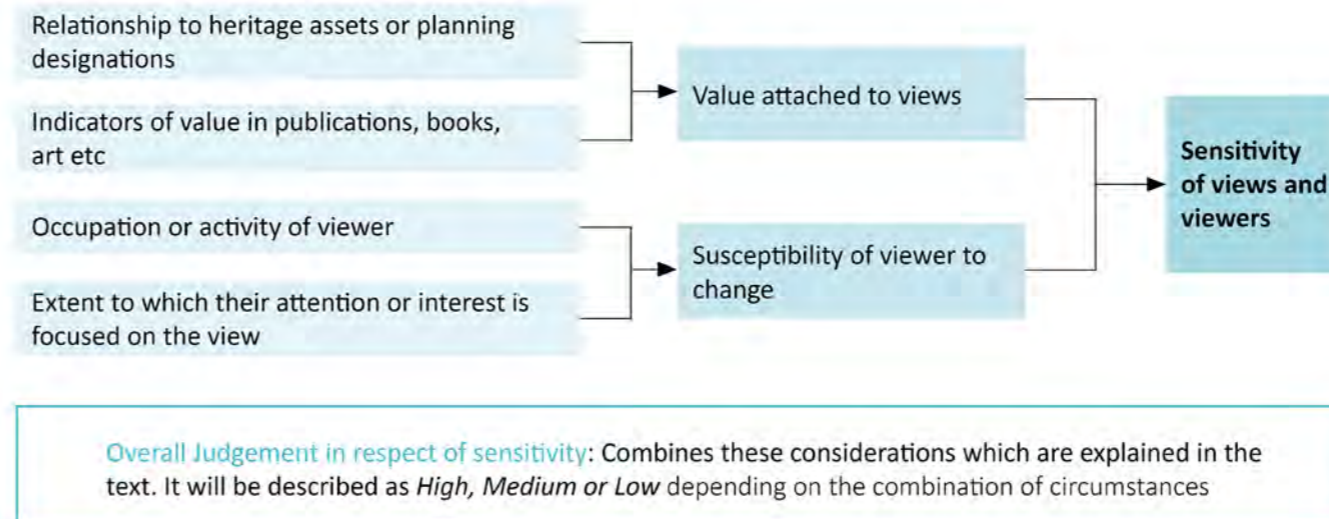
Receptors are considered combinations of receptors, value attached to a view and the susceptibility of the receptor to change.

The value attached to views takes account of the receptors value although planning design value attached through appearance in tourist literature.

The susceptibility of receptors to change will vary according to the receptors experiencing the view and the extent to which their attention is focused on the view.

Viewpoints considered representative of potential receptors situated within the study area at varying distances and directions have been identified from public viewpoints, such as Public Rights of Way (PROW) and roads in the vicinity have been considered.

The following diagram summarises some of the considerations of the evaluation.



## Planning policy and published landscape character assessment

### Planning policy

The Warrington Local Plan Core Strategy was adopted by Warrington Borough Council (WBC) on 21st July 2014 and replaced the previously Adopted Unitary Development Plan as the reference document for planning applications. **Figure 2** (Page 7) identifies the site and the surrounding landscape planning policies within the study area.

The majority of the landscape that surrounds the site of Lymm Green Road is indicated as Green Belt, which is set out within Policy CS 5 – Overall Strategy – Green Belt. This is a spatially related to landscape quality issues.

Warrington Borough Council recognises the need for Green Belt release in order to accommodate the Borough's housing and economic requirements.

Within the study area the Bridgewater Canal and the open land to the north of the Trans Pennine Trail are designated in the Local Plan under Policy CS6 - Strategic Green Link. This policy sets out the need to care and manage the Green Infrastructure in the Borough. In central to the site of Lymm is Lymm Dam. The dam and associated surrounding vegetation is designated as QE5 - Local Nature Reserves.

Lymm Conservation Area is located centrally to the Lymm Site. There are a number of Listed Buildings within the Conservation Area and study area; these features are identified in Policy QE8 – Historic Environment. The Local Plan recognises the value of the heritage

assets to the Borough and sets out the policy to appropriately protect and enhance these areas. St Peter's Church is located 260m to the south of the site in Oughtrington. The church is recorded on the National Heritage List of England and is a Grade II Listed Building, it is also recognised locally as a landmark.

The draft version of the Warrington PSLP was approved for consultation in March 2019. This includes emerging landscape policies that require consideration. Once approved, the PSLP will replace the Local Plan Core Strategy (2014).

### Published landscape character assessment

**Figure 2** (Page 7) shows the extent of the Landscape Character Areas within the study area. The Landscape Character Area within which the site is located, and the adjoining Landscape Character Areas are detailed below.

Warrington LCA, 2007 sets out and describes, on an area by area basis, the Borough's diverse landscape, its cultural history, landscape character and how it has changed, together with Recommended Management and Landscaping. The Borough is divided into broad Landscape Character Types; these are then divided into more detailed Landscape Character Areas.

The site of Lymm and its southern extent fall within Landscape Character Type 3, Red Sandstone Escarpment; Landscape Character Area 3C - Lymm. The area to the north of Lymm area is classed as Landscape Character Type 5 Floodplain and comprises the Linear Landscape Character Area 5A River Mersey Basin.

**Appendix B** includes extracts of the relevant Landscape Character Area descriptions from the Warrington LCA, 2007.

### Landscape Character Area 3C – Lymm

The relevant key characteristics from LCA 3C:

- *Small scale, more intimate rural landscape*
- *Luxuriant hedgerow trees with diverse range of species*
- *Rolling landscape*
- *Restricted views*
- *Strong feeling of high landscape quality*

Landscape Character Area 3C is described within the Warrington LCA, 2007 as:

*“The boundaries of the area are formed by the Massey Brook basin to the west; the Warrington Borough boundary to the south and east and the Bridgewater Canal to the north. The land again falls generally to the north but is of a more rolling and undulating nature occasionally with back falls to the south. The agriculture is a balance of both pastoral and arable farming.*

*The area's topography creates an intimate landscape, often self-enclosed by woodlands and hedgerow trees. Views from the area are therefore less extensive with few internal views of note. Lymm water tower and St Peter's Church, Oughtrington are exceptions, forming local landmarks. To the east of Lymm, around Oughtrington, the landscape is more open and land less dissected by streams.*

*Vegetation in the area generally is notably vigorous and healthy, particularly when compared with the rest of Warrington Borough. Hedgerows and hedgerow trees appear more luxuriant, larger and more well-formed and include a more diverse range of species, including chestnut, lime, beech, and willow, to accompany the more universally found common oak."*

## Landscape Character Area 5A – River Mersey/Bollin

The relevant key characteristics of CA 5A are:

- *The River Mersey and River Bollin*
- *The Manchester Ship Canal*
- *Mounded landfill sites*
- *Slurry and dredging lagoons*
- *Importance for nature conservation*
- *Dominance of floodplain crossings (Road and rail bridges)*
- *Residual floodplain meadows*
- *Widespread residential and industrial development on the floodplain*
- *Artificial levee and channel constraints to the river*
- *Lack of visual importance of the river (normally screened from views)*
- *The Mersey Way recreational footpath*

Landscape Character Area 5A is described within the Warrington LCA, 2007 as:

*"The River Mersey and its broad floodplain forms a major landscape character, dividing the Borough into roughly two halves on an east/west axis. The River Bollin flood plain merges with the*

*Mersey floodplain from the east. The Mersey displays the typical characteristics of a lowland mature river, winding across a broad floodplain with large meander loops. Much of the river has been prevented from naturally flooding onto its floodplain by the creation of artificial levee embankments, whilst its channel has also been occasionally straightened or restricted by sheet piling, walls or other hard structures. A section of the river upstream from Butchers Field, Rixton has also been canalised to form part of the Manchester Ship Canal.*

*Within the Borough boundary, only small areas of original flood meadows still survive. These are located to the south of the river in the Penketh area, to the north of the river within a meander loop at Paddington Meadows and at the confluence with the River Bollin between Warburton and Lymm. The remainder of the Mersey flood plain has heavily developed for residential and industrial uses, particularly in the areas of Martinscroft, Woolston, Padgate, Orford, Westy, Latchford, Wilderspool and Sankey Bridges."*

## Summary of the landscape character of the site and its surroundings

The site itself sits within Landscape Character Area 3C, Lymm.

The site demonstrates "a small scale, more intimate rural landscape" however, this landscape is experienced in the context of the urban edge of Lymm. The site is not considered to be "rolling" or have a "high landscape quality".

The site is not noted as a representative or outstanding example of the landscape character area. Development within the site will be in keeping with the general characteristics of adjacent urban/suburban land uses.

## Landscape/townscape character and visual receptors

### Landscape character of the study area

The study area covers an expanse of land that comprises the north east settlement of Lymm, the village of Oughtrington and the surrounding agricultural land. The settlement of Lymm is characterised by the valley on which it sits. To the south of the village centre is Lymm Dam, a large recreational water body. To the north west of Lymm is Statham which has been absorbed into the development of Lymm.

The topography of the land falls generally to the north and is “rolling and undulating in nature, occasionally with back falls to the south” (Warrington LCA, 2007). The agriculture is a mixture of pastoral and arable farming. In general the landscape character area describes the topography created “an intimate landscape, often self-enclosed by woodlands and hedgerow trees” (Warrington LCA, 2007). These landscape features restrict extensive views, however to the east of Lymm the landscape is more open and less dissected by streams.

### Townscape character of the study area

The townscape adjacent to the site comprises Lymm and Oughtrington.

### Historical development

Lymm conservation area is identified in **Figure 2** (Page 7) and is described in the Conservation Area Leaflet produced by Warrington Borough Council in December 2000. Lymm was recorded in the Domesday Survey of 1086 as a small agricultural community and has since expanded as a residential area. The Conservation Area Leaflet describes “the centre of Lymm has all the attributes of a village and contains a number of buildings of considerable interest, the focal point

being The Cross and stocks, both of medieval origins but replaced in the 17th Century and in 1955 respectively” (Warrington LCA, 2007).

In 1971 the “historic village centre and important components of the townscape extending southwards to include the lake and its wadded slopes” (Warrington LCA, 2007) were designated as the Lymm Village Conservation Area. Then in 1973 the Eagle Brow Area “of Georgian and Victorian houses that form a pleasant approach to the village”, and the New Road Area “of large Victorian houses standing in large gardens bounded by mature landscape and trees” (Warrington LCA, 2007), were designated and added to the Conservation Area.

The development of Lymm settlement has spread along two A roads that pass through the centre of the village, the A56 and the A6144.

### Movement and connectivity

The A6144/ Rush Green Road travels through the study area. The strategic route connects to both Warrington to the east and Greater Manchester to the west. Beyond Lymm village the route links to the B5158 which travels south out of Lymm village and provides a link from the village to the M56.

The Bridgewater Canal traverses the study area on an east-west alignment. The canal was constructed in the 1770s, originally to transport coal from Worsley to Liverpool docks. There are a number of Listed Buildings focused along the canal and bridges crossing the canal.

### Urban structure and built form

Lymm comprises the Village Centre and a number of satellite villages including Oughtrington, Statham, and Rush Green.

The Conservation Area Leaflet (2000) describes how the “character and scale of the buildings in Lymm vary considerably but together they create integrated pleasant street scenes throughout the settlement.” The town has developed over the years from an agricultural settlement to become a residential area incorporating satellite villages. Over time satellite hamlets have become absorbed into the village meaning that Lymm has become an area of predominantly residential development with a mixture of housing styles and types.

### Heritage assets

The majority of the Listed Buildings within the study area are focused along the canal and in the centre of Lymm village.

St Peters Church, Oughtrington is a landmark feature in the landscape, and a Grade II Listed Building.

### Green infrastructure and public realm

Lymm Dam provides a large area for recreation serving the village centre and the satellite hamlets. The dam, its surroundings and the large water body provide opportunities for angling, woodland walks, picnics and has links to the Trans Pennine Trail.

The Trans Pennine Trail, the Cheshire Ring Canal Walk and the Mersey Valley Trail traverse the study area. These are nationally recognised

recreation routes, which lie within close proximity to Lymm. The Trans Pennine Trail is a national east to west route running between Southport and Hornsea. It runs east – west through Lymm following the track bed of the former railway line. The Cheshire Ring Canal Walk forms part of a large recreation route which follows six historic canal towpaths through Cheshire and the Peak District. Adjacent to Lymm the route follows The Bridgewater Canal. The Mersey Valley Trail passes through Lymm and connects to the Mersey Water Canal before continuing to Daresbury Firs, Halton Village and Runcorn beyond. The route is generally rural and takes in low lying hills, woodland, parkland, and farmland. Access to these three recognised trails from the adjacent townscape is via the surrounding highways network and through residential areas.

### Tranquility

A6144 and Oughtrington Lane are both heavily trafficked routes through Lymm and the business uses, schools and residential mean that the landscape is not considered particularly tranquil.

### Site description

Figure 3 (Page 15) shows the site in relation to Lymm, its landscape features and context.

The site comprises agricultural land, including a number of paddocks and a Garden Centre/ Nursery. The site is well related to the settlement of Lymm and is enclosed on three sides by existing residential areas. The Mersey Water Canal forms the southern boundary of the site.

The site is bordered to the north by private residential areas between Moor Road; to the east by private residential areas along Oughtrington Lane; and to the west by the residential development at Mardale Crescent and associated cul de sacs. Oughtrington Community Primary school borders the site to the north east.

Field boundaries are marked by gappy hedgerows. There are areas of woodland plantations and some mature trees are located within the hedgerows focused at the site boundary. The site is generally flat with a gentle slope to the north. There are a number of drains and small water courses that traverse the site in a north south alignment and a pond is located to the south of Lymm Garden Nursery.

There is a Public Right of Way which enters the site on the eastern boundary and tracks in a north western direction to the site boundary. This route provides a connection from Oughtrington to Lymm Village via the Trans Pennine Trail and the highway network. The Cheshire Ring Canal Walk follows directly adjacent to the southern boundary of the site.

The site is well contained by vegetation and trees. From within the site there are occasional views of the eastern part of the site towards St Peter's Church spire.

### Visual receptors and views of the site

Figure 3 (Page 15) illustrates the location of the visual receptors and viewpoints taken from visual receptors within and around the site.

Figures 5-8 (Pages 18-22) include the Photographs 1-10 which are taken from publicly accessible viewpoints within and around the site. Views from private residences have not been considered. Any additional assessments would need to be carried out as a separate assessment.

Observations made during the site visit identified the following publicly accessible visual receptors:

### Public Rights of Way within and surrounding the site

- 1 PRow Lymm 30
- 2 PRow Lymm 32
- 3 Mersey Valley Trail
- 4 Cheshire Ring Canal Walk
- 5 PRow Lymm 34

### Roads surrounding the site

- 6 Oughtrington Lane
- 7 Bucklow Gardens
- 8 Dyers Lane
- 9 Rush Green Road/ A6144
- 10 Thirlmere Drive

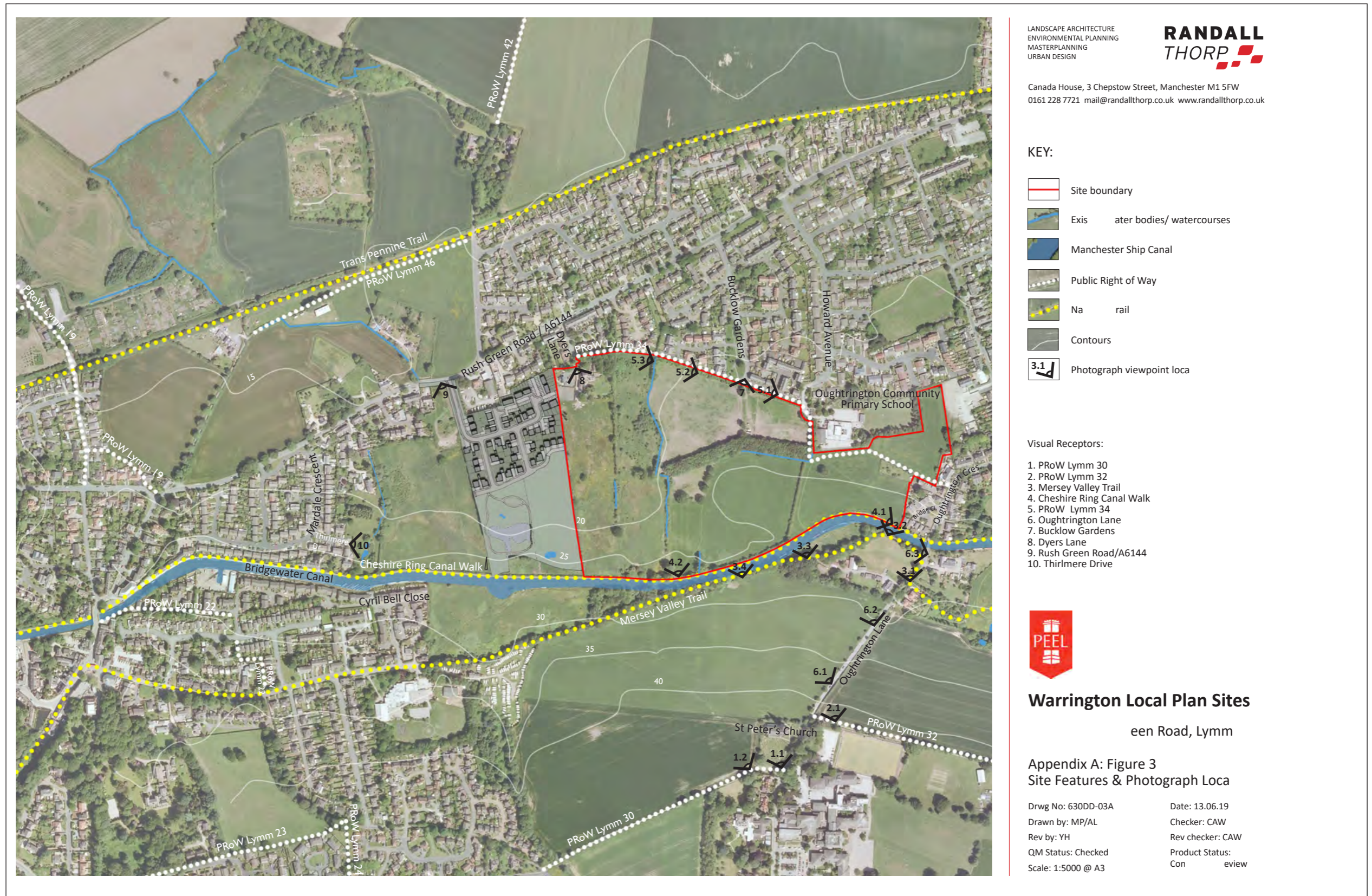


Figure 3 - Site features and photograph locations

## Descriptions of Way within and surrounding the site

### 1 PRow Lymm 30 (Photographs 1.1 – 1.2)

The footpath provides a pedestrian link from the residential area of Lymm to Oughtrington Lane and Lymm High School. From Oughtrington Lane the footpath travels on an east – west alignment, to the south of St Peters Church, a Grade II Listed Building. The route follows a utility line and a pedestrian link to Lymm Village. In views towards the site the eastern part of the route is somewhat enclosed by the adjacent church and associated vegetation. As the route continues there are extensive open views to the north across the site itself is on low lying land and intervening vegetation screened with the Bridgewater Canal screens views of the site. There are long distance views beyond this vegetation towards high ground and raised features in the landscape, such as the M6 motorway on the Thelwall Viaduct and the spoil heap at Bollin Point on the River Mersey.

### 2 PRow Lymm 32 (Photograph 2)

The footpath runs within an agricultural field by a hedge on an east-west alignment. The route links Lymm to Broome Edge and Agden. Due to the topography of the land and the intervening vegetation there are limited views from this footpath to the wider landscape and there are no views of the site.

### 3 Mersey Valley Trail (Photographs 3.1 – 3.4)

The Mersey Trail is a long distance walk that links Lymm through to Runcorn through a series of urban and rural landscapes. The western part of the trail runs through the residential area of Lymm towards Lymm Dam and the eastern part is contained within Spud Wood. From the southern part of the site and adjacent to the Bridgewater Canal, there are unobstructed views into the site through existing vegetation. Views across the site. In the majority of the views the primary school and existing residential buildings with Lymm and Oughtrington can be seen. The views looking south away from the site towards St Peters Church are more valued than those looking north.

### 4 Cheshire Canal Ring Walk (Photographs 4.1 – 4.2)

The Cheshire Ring Canal Walk connects six historic canals and is a nationally recognised trail with recreational value. The route runs outside the site along the southern boundary. Views into the site are generally obscured or screened for the majority of the route. However, there are clear views into the site from the eastern part of the footpath and through gaps in the vegetation along this route are in an urbanising area such as existing residential buildings and the local primary school.

### 5 PRow Lymm 34 (Photographs 5.1 – 5.3)

The route tracks on an east – west alignment entering the site on the eastern boundary from Oughtrington Crescent through a ginnel between existing residential buildings. The route passes through the eastern part of the site, wrapping around the southern and western side of Oughtrington Community Primary School, before leaving the site at the

northern boundary. From this point the route follows the northern site boundary and is overlooked by the private garden at Bucklow Gardens, before passing into a more open residential area. The route is bounded to the north by a mixture of brick walls and fences and rear boundary treatments, and to the south by a mixture of utility lines and rail fences, tall hedgerow and trees. Views are limited for the majority of the journey. However, there are clear views across the site from the eastern part of the route that runs through the eastern part of the site and from the northern boundary at Bucklow Gardens where there are no obstructions. Views from this route are experienced in the context of existing residential development in Lymm and Oughtrington and the local primary school.

## Descriptions of roads surrounding the site

### 6 Oughtrington Lane (Photographs 6.1 – 6.3)

Oughtrington Lane connects Lymm to Oughtrington. The route is semi-rural in its nature with a footpath on one side and breaks in the built form allowing views towards the site. The site is not visible for the majority of the route. It is located within low lying land and when travelling north on Oughtrington Lane the vegetation to the south of the Bridgewater Canal screens the site. As the lane crosses the Bridgewater Canal there are views along the canal towards the south west part of the site; existing residential buildings are seen in the foreground of this view.

**7 Bucklow Gardens (Photograph 7)**

Bucklow Gardens is a series of residential plots located at Green Road. The main arterial route into this area of development runs on a north – south alignment. There are views across the eastern plots from the northern end of the road. The views across the central plots are foreshortened by vegetation and a tree belt that runs centrally to the site.

**8 Dyers Lane (Photograph 8)**

Dyers Lane leads from Rush Green Road and provides access to Dyers Close and Rushgreen House, a large detached dwelling. The route is not heavily trafficked but is a link for pedestrians using PRow Lymm 34. There are limited views of the site from this road and they are experienced in the context of existing residential development.

**9 Rush Green Road/ A6144 (Photograph 9)**

Rush Green Road/ A6144 is a main road through Lymm which provides links from Lymm Village to Warburton, Preston, Cadishead and Irlam. Due to the topography and existing form along Rush Green Road there are few views of the site from the road. Should the site be developed, gaps may appear where there are gaps in the built form and vegetation.

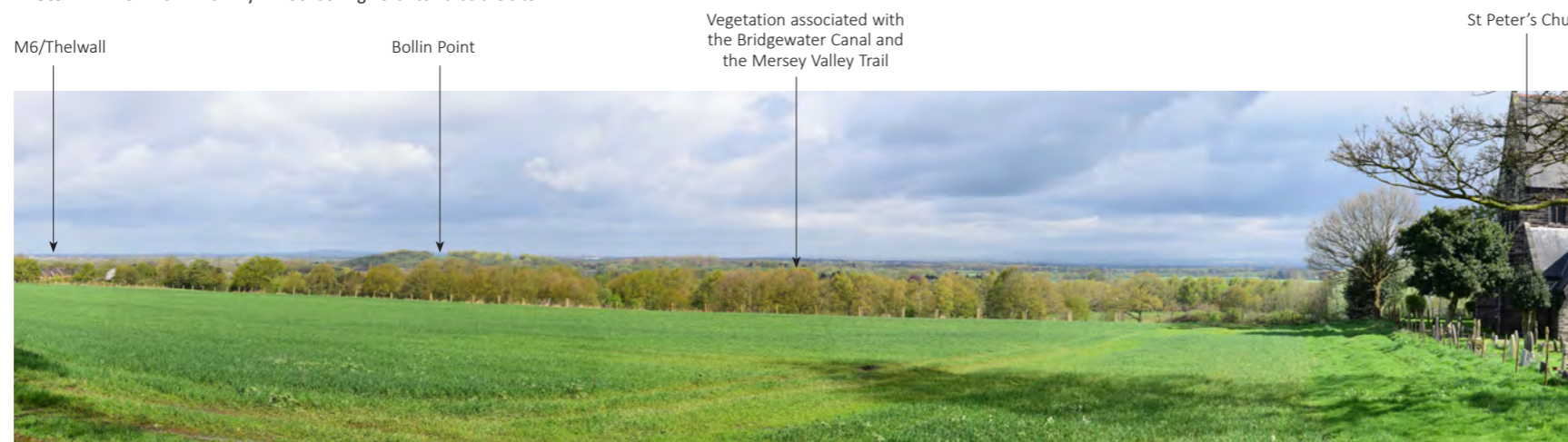
**10 Thirlmere Drive (Photograph 10)**

Thirlmere Drive is a residential road that terminates at the western boundary of the site. It offers some views towards the west. These views are experienced in the context of the existing Thirlmere Drive.





**Photo 1.1** - View from PRoW Lymm 30 looking north towards the site



**Photo 1.2** - View from PRow 30 looking north towards the site



**Photo 2.1** - View from Lymm 32 looking north west towards the site

LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL PLANNING  
MASTERPLANNING  
URBAN DESIGN



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## Warrington Local Plan Sites

een Road, Lymm

### Appendix A: Figure 4 Viewpoint Photographs

Drwg No: 630DD-04  
Drawn by: MP/AL  
Rev by: -  
QM Status: Checked  
Scale: NTS

Date: 01.05.18  
Checker: CAW  
Rev checker: -  
Product Status:  
Con eview

Figure 4 - Viewpoint photographs



Photo 3.1 - View from the Mersey Valley Trail looking north west



Photo 3.2 - View from Mersey Valley Trail looking north.



Photo 3.3 - View from the Mersey Valley Trail look north towards the site

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## Warrington Local Plan Sites

een Road, Lymm

### Appendix A: Figure 5 Viewpoint Photographs

Drwg No: 630DD-05  
Drawn by: MP/AL  
Rev by: -  
QM Status: Checked  
Scale: NTS

Date: 01.09.17  
Checker: CAW  
Rev checker: -  
Product Status:  
Con eview

Figure 5 - Viewpoint photographs



Photo 3.4- View from the Mersey Valley Trail looking north towards the site.



Photo 4.1 - View from the Cheshire Ring Canal Walk looking west.



Photo 4.2 - View from the Cheshire Ring Canal Walk looking north into the site

Figure 6 - Viewpoint photographs

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## Warrington Local Plan Sites

een Road, Lymm

### Appendix A: Figure 6 Viewpoint Photographs

Drwg No: 630DD-06  
Drawn by: MP/AL  
Rev by: -  
QM Status: Checked  
Scale: NTS

Date: 01.09.17  
Checker: CAW  
Rev checker: -  
Product Status:  
Con eview



**Photo 5.1** - View from PRoW 34 looking west along the footpath



**Photo 5.2** - View from PRoW Lymm 34 looking west along the footpath



**Photo 5.3** - View from PRoW Lymm 34 looking south west into the site.

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## Warrington Local Plan Sites

een Road, Lymm

### Appendix A: Figure 7 Viewpoint Photographs

|                    |                 |
|--------------------|-----------------|
| Drwg No: 630DD-07A | Date: 01.09.17  |
| Drawn by: MP/AL    | Checker: CAW    |
| Rev by: -          | Rev checker: -  |
| QM Status: Checked | Product Status: |
| Scale: NTS         | Con review      |

Figure 7 - Viewpoint photographs



Photo 10 - View from Thirlmere Drive looking east towards the site

LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL PLANNING  
MASTERPLANNING  
URBAN DESIGN

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THORP**

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**Warrington Local Plan Sites**

een Road, Lymm

Appendix A: Figure 10  
Viewpoint Photographs

Drwg No: 630DD-10A  
Drawn by: MP/AL  
Rev by: -  
QM Status: Checked  
Scale: NTS

Date: 01.09.17  
Checker: CAW  
Rev checker: -  
Product Status:  
Con eview

Figure 8 - Viewpoint photographs

**Landscape**

The landscape within the study area is not designated for its landscape value.

Paragraph 10.10 above sets out the design and landscape context.

The value of the landscape within the site and its immediate surroundings is considered below using the guidelines of GLVIA3 Box 5.1.

Overall it is considered that this is not a valued landscape. The landscape value of the site and its immediate surroundings is therefore considered to be **Medium - Low**.

|  |
|--|
| <b>LANDSCAPE VALUE</b>   |
| <b>LANDSCAPE QUALITY (CONDITION)</b>   |
| The landscape to the south and east is predominantly agricultural. To the west the <i>“agricultural changes towards arable farming have led to the progressive decline in landscape features such as hedgerows and hedgerow trees”</i> (Warrington LCA, 2007). The landscape to the south is described as having <i>“a strong feeling of a high landscape quality”</i> . Landscape features are described as <i>“luxuriant hedgerow trees”</i> and <i>“well formed”, “often self-enclosed by woodlands”</i> . However, this <i>“creates a less sensitive environment in which to absorb small scale development”</i> . To the north <i>“The flood plains have been extensively developed without consideration to its landscape sensitivity”</i> (Warrington LCA, 2007). |
| <b>SCENIC QUALITY</b>  |
| The scenic quality of the landscape is varied. In some locations due to the lack of vegetation there are open views into the landscape although these are considered <i>“visually dominated by the M6 motorway”</i> (Warrington LCA, 2007). To the south of Lymm the topography and well vegetated nature of this land creates a more intimate and enclosed landscape which is described as having <i>“restricted views”</i> (Warrington LCA, 2007).   |
| <b>RARITY</b>  |
| The landscape does not include uncommon characteristics or features considered to be rare.   |
| <b>REPRESENTATIVENESS</b>  |
| The landscape is representative of the Landscape Character Area but not representative. The landscape does not contain elements which are considered to be outstanding examples.   |
| <b>CONSERVATION INTERESTS</b>  |
| Lymm Conservation Area is located centrally to Lymm. The buildings within the conservation area are surrounded by existing buildings that have been developed as part of the expansion of Lymm. There are a number of Listed Buildings within the vicinity of the site. St Andrew's Church a Grade II Listed church recognised as a highly visible local landmark. Lymm Dam, a Local Nature Reserve, is situated to the south east. Neither the conservation area or Lymm Dam are located within or directly adjacent to the site and there is no visual connection between them and the site.   |
| <b>RECREATION VALUE</b>  |
| The Trans Pennine Trail, the Mersey Valley Trail, and the Cheshire Ring Canal Walk are important recreational routes through the landscape. Lymm Dam also forms an important recreational feature in the landscape.  |
| <b>PERCEPTUAL ASPECTS</b>  |
| The construction of the motorway, the expansion of Lymm village, and continued development of building on the site have altered this agricultural landscape so that it cannot be considered to be wilderness or tranquil.  |
| <b>ASSOCIATIONS</b>  |
| There are no known associations with published art, literature or folklore which would add to its landscape value.   |

## Susceptibility to change

The existing topography and vegetation of Lymm “creates a less sensitive environment in which to absorb small scale development” (Warrington LCA, 2007). The landscape that surrounds Lymm is predominantly agricultural land. The site is considered to be urban fringe in its nature as it is viewed in the context of the existing residential development. The landscape has some features that are considered to be vulnerable but these are located beyond the canals and are not associated with the site itself.

The susceptibility to change is therefore considered to be **Medium - Low**.

## Conclusion in respects of the landscape

As can be ascertained from the description there is nothing to indicate that there is anything about the landscape which should be considered remarkable or out of the ordinary. Some features of value are identified that are situated which could be subject to further assessment and analysis.

The landscape value and its susceptibility to change results from the consideration of the landscape. As the **landscape value has been assessed as Medium - Low and the susceptibility to change has been assessed as Medium - Low**; the landscape is therefore considered to be **Medium - Low**.

## Views and visual receptors

In line with GLVIA and **Diagram 2** within the methodology, the visual receptor is a considered combination of the value of the view and the susceptibility to change of the visual receptor.

The following **Table 1** illustrates the visual receptors.

The landscape is not designated nationally for its landscape value and is not valued for its scenic quality.

Table 1: Sensitivity of visual receptors

| VISUAL RECEPTOR TYPE   | VALUE OF THE VIEW  | SUSCEPTIBILITY TO CHANGE   | RESULTING SENSITIVITY |
|--|--|--|-----------------------|
| <b>PUBLIC RIGHTS OF WAY WITHIN AND SURROUNDING THE SITE</b>                                |  |  |                       |
| <b>Receptor 1</b><br>(Photographs 1.1 – 1.2)<br>Pedestrians using PRoW<br>FP Lymm 30       | <b>High</b><br>Some value attached to this view in relation to designated heritage assets. Residential development, a spoil heap and the M6 Thelwall viaduct are also visible. | <b>High</b><br>The landscape is likely to be valued by those engaged in recreation | <b>High</b>           |
| <b>Receptor 2</b><br>(Photograph 2)<br>Pedestrians using PRoW<br>Lymm 32                   | <b>Medium</b><br>No recognised value attached to the views.  | <b>High</b><br>The landscape is likely to be valued by those engaged in recreation | <b>Medium - High</b>  |
| <b>Receptor 3</b><br>(Photographs 3.1 – 3.4)<br>Pedestrians using Mersey Valley Trail      | <b>High</b><br>Published recreation route. Some value attached to this view in relation to designated heritage assets.   | <b>High</b><br>The landscape is likely to be valued by those engaged in recreation | <b>High</b>           |
| <b>Receptor 4</b><br>(Photographs 4.1 – 4.4)<br>Pedestrians using Cheshire Canal Ring Walk | <b>High</b><br>Published recreation route. Views across an ordinary landscape with residential development and a school visible in the view.                                   | <b>High</b><br>The landscape is likely to be valued by those engaged in recreation | <b>High</b>           |
| <b>Receptor 5</b><br>(Photographs 5.1 – 5.3)<br>Pedestrians using PRoW<br>Lymm 34          | <b>Medium</b><br>Enclosed view for the majority of the route. Where views are possible these are experienced across an ordinary landscape towards the south.                   | <b>High</b><br>The landscape is likely to be valued by those engaged in recreation | <b>Medium - High</b>  |

| VISUAL RECEPTOR TYPE   | VALUE OF THE VIEW   | SUSCEPTIBILITY TO CHANGE  | RESULTING SENSITIVITY |
|--|---|---|-----------------------|
| <b>ROADS SURROUNDING THE SITE</b>  |   |   |                       |
| <b>Receptor 6</b><br>(Photographs 6.1 – 6.3)<br>Users of Oughtrington Lane       | <b>Medium</b><br>Some value in relation to designated heritage assets. Semi rural route, which includes views of housing and local schools. | <b>Medium</b><br>Taking into account their speed of travel views and because their interest is focused on the road and driving rather than the views. | <b>Medium</b>         |
| <b>Receptor 7</b><br>(Photograph 7)<br>Users of Bucklow Gardens                  | <b>Low</b><br>No recognised value attached to the views. Views across an ordinary landscape.  | <b>Low</b><br>Primarily using routes for access rather than focusing on the views.  | <b>Low</b>            |
| <b>Receptor 8</b><br>(Photograph 8)<br>Users of Dyers Lane                       | <b>Low</b><br>No recognised value attached to the views. Views across an ordinary landscape.  | <b>Low</b><br>Primarily using routes for access rather than focusing on the views.  | <b>Low</b>            |
| <b>Receptor 9</b><br>(Photograph 9)<br>Motorists using Rush Green Road/ A6144    | <b>Low</b><br>No recognised value attached to the views. Views of the highway, corridor.  | <b>Low</b><br>Taking into account their speed of travel views and because their interest is focused on the road and driving rather than the views.    | <b>Low</b>            |
| <b>Receptor 10</b><br>Receptor 10<br>(Photograph 10)<br>Users of Thirlmere Drive | <b>Low</b><br>No recognised value attached to the views. Some value in relation to locally designated heritage assets.                      | <b>Low</b><br>Primarily using routes for access rather than focusing on the views.  | <b>Low</b>            |



## Development potential

The evaluation of landscape, townscape and the visual receptors highlights an opportunity that any proposed masterplan should take into consideration to demonstrate good design and a commitment to the landscape and its character. The constraints plan on Page 28 and appended to this assessment (**Appendix D**) illustrates the relevant considerations for the site.

## Evaluation

The landscape and its surroundings is considered to be **Medium - Low**.

Existing hedgerows, trees and water bodies should be retained and enhanced as part of any development proposal. Other than the loss of open land there are few existing features that would be lost should the site be developed. There are no landscape features within the site that are considered to be rare or valued. The site is surrounded on three sides by existing hedgerows to the south by the canal and therefore any proposal to develop the site for housing would not detract from the adjacent character.

Appropriate masterplanning of the site could make a commitment to the landscape. The existing landscape structure of the site could be preserved and enhanced with new woodland areas to create green corridors and provide screening to the surrounding properties. Ponds and ditches could be linked to existing water courses to create a sustainable and effective drainage network and improve biodiversity.

There would be an obvious change in the character at site level, however the site fits within the overall study area and the site does not detract from the surrounding landscape within which it sits.

Through a well-designed masterplan the development of the site could achieve the relevant recommended management and landscape objectives identified in the Warrington LCA, 2007 and contribute

to the landscape and its character. The relevant recommended management and landscape objectives within the Warrington LCA are:

- Monitor existing hedgerows and hedgerow trees
- Encourage a rolling programme of new hedgerow tree planting
- Investigate the opportunities for extended footpath systems associated with the brooks and linear woodland

**Evaluation of townscape**

The key elements of built form that contribute towards the townscape character adjacent to the site within Lymm have been identified in Chapter 4 of this report.

Development of the site would be accessed from the northern boundary via the A6144/ Rush Green Road, the main route in to Lymm. Access to residential development is a characteristic of the road and a proposed access along this route would not be at odds with the existing approach to Lymm Village.

The site has no direct relationship with the Lymm Conservation Area. Any development proposals will need to consider the setting of the bridge over the canal at Oughtrington Lane which is a listed structure.

Development of the site should look to create a network of new footpaths and cycle routes. These new linkages could be incorporated into the design, improving connectivity to the surrounding landscape and existing recreational routes, including the Trans Pennine Way and the Cheshire Ring Canal Walk.

The masterplan should demonstrate that any new green infrastructure within the site could be overlooked by proposed new development, providing natural surveillance.

**Evaluation of visual receptors**

The visual receptor with views of the site has been assessed in Chapter 5 of this report.

The most important visual receptors are the existing routes of the Trans Pennine Way within the site and along the northern and southern boundaries of the site. Any development should ensure appropriate settings of built form to these routes and these should be retained through a green corridor.

The site is not considered to be part of the immediate setting of St Peter's Church. However, views of the church are considered a characteristic of the Lymm and any development of the site should retain view lines towards the church spire where appropriate.



Constraints and Opportunities

## Development potential

The plan overleaf highlights the constraints established within this appraisal.

There is no reason why a well-designed development, that preserves and enhances the existing landscape features and Public Rights of Way within a green infrastructure network and responds to the adjacent heritage assets and townscape, would have any adverse effects on the character of Lymm or the wider landscape of the study area.

With appropriate good design and well thought out landscape measures, it would be possible to develop the site whilst avoiding any potential adverse effects on the visual amenity of the surrounding receptors.

For the reasons outlined above, this report considers Green Road to be a sustainable and achievable location to be allocated for new housing development within the new Warrington Borough Local Plan without having any adverse effects on the “*overall Green Belt and settlement character objectives*” as suggested in the Warrington Borough Council Local Plan: Settlement Patterns Document (July 2017).

## Illustrative masterplan

Constraints identified through the landscape and visual appraisal have been combined with analysis of site constraints from other consultants in relation to arboriculture, ecology, heritage, noise, transport and other factors. A consultant illustrative masterplan has been prepared to demonstrate the potential development of the site with an allocation for housing.

Green Road, Lymm presents an opportunity to develop a sustainable residential development to the Lymm village, providing around 112 new homes.

The development would support the existing community with a high quality residential development, an extension to the existing primary school, and an extensive areas of open space for informal recreation use. The development would be designed to support walking and cycling, and will benefit from direct access onto the Cheshire Ring Canal Walk and Lymm Village.

The new Green Belt boundary would ensure clear separation between Lymm and Oughtrington and would provide a strategic gap between these residential areas.

The development would ensure that important ecological assets within the site are preserved with measures to provide habitats and enhanced biodiversity.

The development on the site would preserve and where possible enhance the existing heritage assets including the Bridgewater canal and its bridges, and St Peter's Church.



Illustrative Masterplan



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THE  
ENVIRONMENT  
PARTNERSHIP

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**RUSHGREEN ROAD**  
**LYMM**  
**ARBORICULTURAL DESKTOP ASSESSMENT**  
**JUNE 2019**

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## **DRAWINGS**

Drawing 1 - Arboricultural Desktop Overview

Drawing 2 - Illustrative Masterplan Land off Rushgreen Road

## Executive Summary

1. TEP has been commissioned by Peel Holdings (Land and Property) Limited to conduct a walkover survey and desktop assessment of land at Rushgreen Road, Lymm and a review of designations, policies and other instruments of relevance to arboriculture. This report presents the results of the assessment and the anticipated interaction of trees with residential development.
2. The Illustrative Masterplan comprises 4.39ha of land that could deliver up to 112 units with a further 2.19ha allocated for green infrastructure. A further 7.87 ha of land is to be safeguarded.
3. National Tree Map data indicates that there are 435 trees on the site equating to an approximate tree canopy cover of 2.97ha (20% of the site). The age, composition and quality of this tree cover is however unknown. Trees cover a relatively low proportion of the total site area, although there are areas containing fairly diffuse tree cover due to apparent lack of use or management. This particularly includes a strip through the centre of the site from north to south.
4. The desktop review and site survey identified one Tree Preservation Order; no trees within a Conservation Area; no ancient woodland; no veteran trees; and no Habitats of Principal Importance. The site is within the Mersey Forest community forest.
5. The Illustrative Masterplan demonstrates it would be possible to develop the site whilst incorporating over 65% of existing trees (1.93ha). It would also provide an opportunity for substantial new planting that could increase species diversity and create habitat types not currently present on the site. On this basis mitigation for the loss of trees could be adequately delivered within the site proposals and is likely to result in a net gain in long-term canopy cover.
6. An Arboricultural Impact Assessment (AIA) will be required in support of a reserved matter/detailed application. This will identify, evaluate and possibly mitigate the impacts of developing land on the existing tree resource. The AIA should be based on a detailed tree survey undertaken according to BS5837:2012 that assess and reports on: canopy spread of existing trees and groups; a Root Protection Area (RPA) calculated in accordance with BS 5837; and tree quality category that identifies the quality and value (in a non-fiscal sense) of the existing tree stock, to allow informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

## 1.0 Instruction and scope

- 1.1 TEP has been commissioned by Peel Holdings (Land and Property) Limited to conduct a preliminary assessment of land at Rushgreen Road. This report presents the results of desktop exercise to identify potential constraints to future development. It also reports on the preliminary assessment effects of the nominated masterplan based on the available desktop results.
- 1.2 This report was written by Tom Popplewell, an experienced arboriculturist and Professional Member of the Institute of Chartered Foresters with a BSc (hons) in arboriculture.
- 1.3 The extent of tree and hedgerow cover shown has been digitised from National Tree Map data and should be regarded as approximate.

## 2.0 Site description

### Site name

- 2.1 The site is known as Rushgreen Road, Lymm. The approximate extents of the study area is shown in Figure 1.



Figure 1 Site location and approximate boundary (OS VectorMap® District Resampled)

Contains OS data © Crown copyright and database right 2018

### Address/location

- 2.2 The site is located to the east of Lymm and the south of Rushgreen. The boundaries are defined by the Bridgewater Canal to the south and residential and retail properties in all other directions. Oughtrington Community Primary School is just outside the north-eastern boundary of the site.

### Approximate area

- 2.3 The site is approximately 14.99ha.

### Current use

- 2.4 The site comprises agricultural land used principally for grazing, including horses and an area of commercial yards and units including fabrication and welding. There are a number of tracks running through the interior of the site and a towpath on the southern boundary along the canal.

### Local authority

- 2.5 The local authority is Warrington Borough Council.
- 2.6 The local authority's tree officer can be contacted by email at [stwigg@warrington.gov.uk](mailto:stwigg@warrington.gov.uk) or by telephone on 01925 444 108.

## 3.0 Statutory protection, designations and guidance

### Tree Preservation Orders

- 3.1 Local authorities can create Tree Preservation Orders (TPO) to protect the amenity of trees, groups of trees, woodland or all the trees within a defined area<sup>1</sup>. Cutting down, lopping (including roots), topping, uprooting, and wilful damage or destruction are prohibited by TPO unless done with the Local Authority's written consent.
- 3.2 The council's online mapping facility confirmed that there are TPOs on the site clustered around Rushgreen House and Grooms Cottage just inside the northern boundary.

*Table 1 Tree Preservation Orders*

| Location   | Order reference                        | Feature description   |
|--|--|---|
| In grounds of Grooms Cottage and Rushgreen House | 212: Rushgreen House, Dyers Lane, Lymm | T1: Ash<br>T2 to T8: Robinia<br>T9: Oak<br>A1: Mixed Hardwood |

- 3.3 Copies of all relevant Tree Preservation Orders can be viewed online at [http://mapping.warrington.gov.uk/wml/Map.aspx?MapName=Planning\\_and\\_LLC\\_External](http://mapping.warrington.gov.uk/wml/Map.aspx?MapName=Planning_and_LLC_External).

### Conservation Area

- 3.4 Trees within Conservation Areas are protected by Section 211 of The Town and Country Planning Act 1990. The local authority must be notified 6 weeks before the any tree<sup>2</sup> in a Conservation Area is removed, uprooted, lopped, topped, wilfully destroyed, or wilfully damaged. During this period the Council may consider serving a Tree Preservation Order to prevent the proposed work from being undertaken.
- 3.5 The council's online mapping facility confirmed that no part of the site is within a Conservation Area.

### Ancient Woodland and Veteran Trees

- 3.6 Ancient woodland and ancient or veteran trees are irreplaceable and amongst the most valuable and sensitive habitats. Ancient woodland is any area that has been wooded since at least 1600. Individual trees of exceptional age, size, biodiversity or cultural significance are regarded as 'veterans'. Neither category has legal protection but they have strong protection in planning policy. Any works to veteran or ancient trees and woodland should be undertaken with the utmost sensitivity and under specialist advice.<sup>3</sup>

<sup>1</sup> Exemptions apply, see <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

<sup>2</sup> Exemptions apply, see <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

<sup>3</sup> See <https://www.forestry.gov.uk/anwpracticeguide> for further information

- 3.7 The Forestry Commission is a non-statutory consultee for development within 500m of an Ancient Woodland. Natural England and Forestry Commission publishes Standing Advice which reinforces the assumption in NPPF that development within an Ancient Woodland normally requires exceptional circumstances. A minimum buffer of 15m is recommended between any new development and ancient woodland.
- 3.8 Natural England's ancient woodland inventory<sup>4</sup> shows no ancient woodland within or adjacent to the site. The inventory is provisional and may not show woodland smaller than 2ha. It is therefore possible that smaller or unmapped ancient woodland exists. The current and previous land use is thought to make this unlikely.
- 3.9 Veteran trees are also regarded as an irreplaceable habitat with similar provisions to ancient woodland. There is a presumption in NPPF against development that would result in loss or deterioration of a veteran tree. It is not possible to replace veteran trees and any such effects must be weighed in the planning balance against need and benefits.
- 3.10 There is no comprehensive register of veteran trees. The Woodland Trust maintains a verified register of ancient, veteran and notable trees on behalf of the Ancient Tree Forum, which contains no records for the site.

### **Felling Licences**

- 3.11 It is an offence under the Forestry Act (1967) to fell trees without a licence unless an exemption applies.
- 3.12 Pruning; small scale felling; hazard and nuisance abatement; and felling in a domestic garden, orchard, churchyard or designated open space are amongst those works that may be exempt.<sup>5</sup>
- 3.13 There are parts of the site that should be considered exempt from felling licence jurisdiction including domestic gardens. However, certain operations are exempt and advice should be sought when considering tree works. In the absence of a detailed planning permission, any tree works may require a felling licence.

### **Hedgerow Regulations**

- 3.14 The Hedgerow Regulations (1997) protect hedgerows that meet certain criteria<sup>6</sup>. This report does not include an assessment to determine which, if any, features would be protected under the Regulations. Hedges less than 20m long, in domestic gardens, or younger than 30 years are less likely to be protected.
- 3.15 Any removal of a protected hedgerow or a section of a protected hedgerow must only be done with the written consent of the Local Authority.

<sup>4</sup> <http://www.natureonthemap.naturalengland.org.uk/magicmap.aspx>

<sup>5</sup> See <https://www.forestry.gov.uk/england-fellinglicences> for details

<sup>6</sup> See <https://www.gov.uk/guidance/countryside-hedgerows-regulation-and-management> for details

- 3.16 The site contains numerous hedges along boundaries, internal roads and around residential curtilages. Hedgerow may qualify as 'Important' hedgerow under the Regulations on the grounds of woody species and ecological criteria. It is possible that linear vegetation including scrub and trees that is not immediately identifiable as hedgerow might also qualify but a full site-based assessment has not been undertaken.

### **Habitats of Principal Importance**

- 3.17 The Natural Environment and Rural Communities Act 2006 places a duty on public bodies to show regard for biodiversity in the normal discharge of their functions. The Act requires a schedule of Habitats of Principal Importance to be maintained. This schedule (section 41 in England) is used by public bodies as a guide to the interpretation of their duty to conserve biodiversity. The list of habitats is based on the previously published list of Biodiversity Action Plan 'Priority Habitats'. For this reason, mapping tends to follow broad habitat types and requires verification in the field.
- 3.18 There are a number of habitat types that pertain to trees: *Deciduous Woodland*; *Hedgerows*; *Wood Pasture and Parkland*; and *Traditional Orchards*.
- 3.19 *Deciduous Woodland* is used to represent a range of woodland types that are not mapped individually.
- 3.20 Mapping of *Deciduous Woodland* is based on remote digital analysis. Drawing 1 shows the extent of adjacent deciduous woodland; the site contains no mapped woodland. However, it appears likely that some areas of more substantial tree cover may be unmapped woodland. In particular, these include a belt of trees running west within the site from Oughtrington Primary School, and trees around a pond to the south of the commercial premises and old nursery site.
- 3.21 *Hedgerows* are defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide. It is likely that the most of the hedgerows on the site would meet the criteria for inclusion in this habitat type. It is possible that other vegetation could be considered to be hedgerow which has been recorded as woodland edges, for example where previously managed hedges have grown into shrubby tree belts. Rows of conifers would typically cease to be considered hedges when they could no longer be managed as such. Most internal and perimeter boundaries are marked by some form of linear vegetation.
- 3.22 *Wood Pasture and Parkland* is a less common and easily overlooked type of woodland habitat in which trees are a principal structural component but within an open and grazed context rather than high woodland. Veteran and ancient trees are often a feature and the presence of deadwood and grazing animals create niche habitats for a range of lichens, insects, fungi and flora that occur exclusively in this habitat. None of the site is mapped as *Wood Pasture and Parkland*.
- 3.23 *Traditional Orchard* includes most non-commercial and non-intensive orchards. There are no records of Traditional Orchards on or adjacent to the site.



## Community Forest

- 3.24 The site is within the Mersey Forest community forest. It is also within the recently announced Northern Forest. These may provide a useful vehicle for coordinating, consulting on, planning, funding, or maximising benefits delivered by tree and woodland management. In view of the tree population present, it is suggested that the Mersey Forest should be consulted on proposed development and mitigation options.
- 3.25 Within the Mersey Forest Plan the site falls within the *Urban edges, motorways and highways (W3)* area. The indicative woodland cover target for this area is 30% and the relevant policy is:
- (i) *Increase woodland planting density and create linear woodlands, including along strategic green links such as the Bridgewater Canal and the Trans Pennine Trail.*

## Other Designations and Status

- 3.26 None known.

## 4.0 Planning Policy

- 4.1 All trees are a material consideration. All other things being equal, the removal or deterioration of a tree, woodland or hedgerow should be regarded as an adverse effect and may therefore require mitigation to achieve no net loss.
- 4.2 Mitigation in the form of new planting is unlikely to deliver equivalent functions and benefits to existing trees, particularly where these are mature. Temporal delays in delivery, higher planting ratios, or additional measures may therefore form a necessary part of any mitigation strategy.

### **National Planning Policy Framework (NPPF)**

- 4.3 The National Planning Policy Framework (NPPF) is a material consideration in the planning process and promotes a presumption in favour of sustainable development. In terms of the natural environment, development should minimise impacts on biodiversity and provide a net gain in biodiversity where possible.
- 4.4 The application of national planning policy, particularly the assessment of net impacts on tree cover and quality, is reinforced by published guidance in the form of BS5837:2012 Trees in relation to design, demolition and construction - Recommendations. It should be assumed that any necessary tree removal should be mitigated or offset and that any application should be supported by an assessment of residual impact by a qualified arboriculturist. It should also be assumed that all ancient woodland and veteran trees are sacrosanct and must be incorporated appropriately within any development.
- 4.5 The NPPF assumes protection of all ancient woodland and veteran trees unless there are wholly exceptional reasons and a suitable compensation strategy exists. In this respect ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD and a veteran as a tree of exceptional value for wildlife, in the landscape, or culturally because of its great age, size or condition.
- 4.6 The presence or absence of veteran trees should be confirmed in due course by detailed ground surveys.

### **Local Planning Policy**

- 4.7 Warrington Borough Council has a number of adopted policies pertaining to trees and nature conservation in the Core Strategy. They are reproduced hereafter.

#### Policy QE 3

##### *Green Infrastructure*

- 4.8 The Council will work with partners to develop and adopt an integrated approach to the provision, care and management of the borough's Green Infrastructure. Joint working and the assessment of applications will be focussed on:
  - (i) protecting existing provision and the functions this performs;

- (ii) increasing the functionality of existing and planned provision especially where this helps to mitigate the causes of and addresses the impacts of climate change;
- (iii) improving the quality of existing provision, including local networks and corridors, specifically to increase its attractiveness as a sport, leisure and recreation opportunity and its value as a habitat for biodiversity;
- (iv) protecting and improving access to and connectivity between existing and planned provision to develop a continuous right of way and greenway network and integrated ecological system;
- (v) securing new provision in order to cater for anticipated increases in demand arising from development particularly in areas where there are existing deficiencies assessed against standards set by the Council.

#### Policy QE 5

##### *Biodiversity and Geodiversity*

- 4.9 The Council will work with partners to protect and where possible enhance sites of recognised nature and geological value. These efforts will be guided by the principles set out in National Planning Policy and those which underpin the strategic approach to the care and management of the borough's Green Infrastructure in its widest sense.
- 4.10 Sites and areas recognised for their nature and geological value are shown on the Policies Map and include:
  - (i) European Sites of International Importance
  - (ii) Sites of Special Scientific Interest
  - (iii) Regionally Important Geological Sites
  - (iv) Local Nature Reserves
  - (v) Local Wildlife Sites
  - (vi) Wildlife Corridors
- 4.11 The specific sites covered by the above designations at the time of publication are detailed in Appendix 3. [NB. This includes Moore Nature Reserve]
- 4.12 Proposals for development which may affect European Sites of International Importance will be subject to the most rigorous examination in accordance with the Habitats Directive. Development or land use change not directly connected with or necessary to the management of the site and which is likely to have significant effects on the site (either individually or in combination with other plans or projects) and which would affect the integrity of the site, will not be permitted unless the Council is satisfied that; there is no alternative solution; and there are imperative reasons of over-riding public interest for the development or land use change.

- 4.13 Proposals for development in or likely to affect Sites of Special Scientific Interest (SSSI) will be subject to special scrutiny. Where such development may have an adverse effect, directly or indirectly, on the SSSI it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.
- 4.14 Proposals for development likely to have an adverse effect on regionally and locally designated sites will not be permitted unless it can be clearly demonstrated that there are reasons for the development which outweigh the need to safeguard the substantive nature conservation value of the site or feature.
- 4.15 Proposals for development which may adversely affect the integrity or continuity of UK Key habitats or other habitats of local importance, or adversely affect EU Protected Species, UK Priority Species or other species of local importance, or which are the subject of Local Biodiversity Action Plans will only be permitted if it can be shown that the reasons for the development clearly outweigh the need to retain the habitats or species affected and that mitigating measures can be provided which would reinstate the habitats or provide equally viable alternative refuge sites for the species affected.
- 4.16 All development proposals affecting protected sites, wildlife corridors, key habitats or priority species (as identified in Local Biodiversity Action Plans) should be accompanied by information proportionate to their nature conservation value including;
- (i) importance; an assessment of the likely impacts of the proposed development proposals for the protection and management of features identified for retention;
  - (ii) an assessment of whether the reasons for the development clearly outweigh the nature conservation value of the site, area or species; and
  - (iii) proposals for compensating for features damaged or destroyed during the development process
- 4.17 Where development is permitted, the Council will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's nature conservation interest and/or to provide appropriate compensatory measures.

#### Policy QE 6

##### *Environment and Amenity Protection*

- 4.18 The Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following:
- (i) The integrity and continuity of tidal and fluvial flood defences;
  - (ii) The quality of water bodies, including canals, rivers, ponds and lakes;

- (iii) Groundwater resources in terms of their quantity, quality and the ecological features they support;
- (iv) Land quality;
- (v) Air quality;
- (vi) Noise and vibration levels and times when such disturbances are likely to occur;
- (vii) Levels of light pollution and impacts on the night sky;
- (viii) Levels of odours, fumes, dust, litter accumulation and refuse collection/storage.
- (ix) The need to respect the living conditions of existing neighbouring residential occupiers and future occupiers of new housing schemes in relation to overlooking/loss of privacy, outlook, sunlight, daylight, overshadowing, noise and disturbance;
- (x) The effect and timing of traffic movement to, from and within the site and car parking including impacts on highway safety;
- (xi) The ability and the effect of using permitted development rights to change use within the same Use Class (as set out in the in the Town and Country Planning (General Permitted Development Order) without the need to obtain planning consent.

- 4.19 Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval.
- 4.20 Where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured.
- 4.21 Development proposals on land that is (or is suspected to be) affected by contamination or ground instability or has a sensitive end use must include an assessment of the extent of the issues and any possible risks. Development will only be permitted where the land is, or is made, suitable for the proposed use.
- 4.22 Additional guidance to support the implementation of this policy is provided in the Design and Construction and Environmental Protection Supplementary Planning Documents.

### **Relevance to this site**

- 4.23 The application and relevance of the above policies to any development on this site should be explored within an Arboricultural Impact Assessment. The quality of specimen trees and woodland and the connectivity of habitats should be evaluated in terms of policy compliance and in the context of other conservation objectives. The function of trees as the context and backdrop for users of the canal towpath should also be considered in relation to the heritage and landscape qualities of the canal setting.

## 5.0 Preliminary Assessment of Effects

- 5.1 Wherever development occurs, there is a potential for effects on trees. This might comprise the removal of trees that would physically prevent the development but also those that are nearby and vulnerable to changes in local conditions that would arise because of construction.
- 5.2 Trees are a material consideration in the planning process. There should be a common sense ambition to limit tree loss to that which is strictly necessary to facilitate the proposal, and to ensure that the condition and safety of all remaining trees would not be compromised by the development. The quality and distribution of trees should also be considered amongst other constraints in the development of the proposed design and may not always have the highest priority.
- 5.3 The approximate extents of woody vegetation and relevant designations and status are shown on Drawing 1. This should be used as a basis for masterplanning and feasibility studies but should not be relied upon for detailed layout design.
- 5.4 National Tree Map data indicates that there are 435 trees on the site equating to an approximate tree canopy cover of 2.97ha (20% of the site). The age, composition and quality of this tree cover is however unknown.
- 5.5 Trees cover a relatively low proportion of the total site area, although there are areas containing fairly diffuse tree cover due to apparent lack of use or management. This particularly includes a strip through the centre of the site from north to south.
- 5.6 The majority of trees are located along internal boundaries and within a central woodland belt. However, there are also a reasonable number of specimen trees which are open grown.
- 5.7 The presence of a TPO indicates that the local authority has made an assessment and regards those trees as being having sufficient quality that their protection is in the interests of amenity. However, the masterplan indicates no development near to these trees.

### **Development Proposals**

- 5.8 The proposed development area, including the provision of infrastructure incorporates 4.39ha of the site at Lymm, the majority of which is currently agricultural land. This could deliver up to 112 units. The masterplan also allocates provision for a: further 2.19ha of greenspace to include a number of LEAPS and the integration and strengthening of the existing green infrastructure; and 7.87ha of land to be safeguarded.
- 5.9 The following text gives an overview of the likely impact of the masterplan proposals on key metrics of existing trees where these are known or can be estimated. Actual effects will be determined at the detailed design stage. It is assumed that any future design will be broadly similar to the Masterplan (reproduced at Drawing 2) but may be influenced by the constraints and opportunities presented in this report and by other technical disciplines.

## **Canopy Cover**

- 5.10 The primary tree losses would occur along the north-western part of the site within the development pockets and internal road network. The majority of this tree cover is likely to comprise broadleaf scrub and trees that form scattered tree cover in one of the un-used fields. A new access points off Bucklow Gardens along the northern boundary would also result in the loss trees where they exist in dense linear belts. Based on National Tree Map data detailed on Drawing 1, an estimated 1.04ha of tree cover would be removed.
- 5.11 The distribution of trees, particularly those that are mature, within the site means it is likely that development of this site in broad accordance with the masterplan could be delivered with limited adverse effects on trees. Mature open grown trees are mostly in a linear belt arrangement in the central section of the site to the east of the commercial premises, much of which the Masterplan incorporates.
- 5.12 Development within areas of lower quality and lower density tree cover and areas of open space would be associated with lower adverse effects than development in other areas. This should be explored with the benefit of the higher resolution of assessment that a detailed tree survey would provide.

## **Opportunities**

- 5.13 Trees are a material consideration in the planning process. All trees have some inherent value and any loss of trees should normally be mitigated by new planting. Preserving the existing quantity and proportion of tree cover is generally possible in most areas due to the sites former use and layout of the final built form as shown by the masterplan.
- 5.14 New planting within designated green space as shown on the masterplan would augment and strengthen the existing tree cover. This presents an opportunity to significantly increase species diversity and arboreal value types not currently present across the site. New planting should look to introduce species that are resilient to disease whilst increasing the existing diversity of the current tree stock.

## **Veteran Trees**

- 5.15 It has not possible to rule out their presence of veteran trees due to a lack of site access. It will be necessary for any future layout to respond to the presence of veteran trees should they be identified during more detailed survey work.

## 6.0 Recommendations

### Tree Works

- 6.1 Where required, all works should be undertaken by a suitably qualified, competent and insured contractor. It is recommended that at least three quotations should be sought for works

#### Permissions

- 6.2 Authority to undertake pruning, felling or other routine maintenance works to trees must be sought in advance of commencement.
- 6.3 The permission of the owner of the land around the base of the tree must be sought. For trees on boundaries, this may be more than one party.
- 6.4 Any tree works that are required to deliver development that has detailed consent will not normally require additional permissions, unless they are done under licence from Natural England because they would affect a protected species.
- 6.5 Works affecting any tree within an area covered by an active planning permission may risk breach of that planning permission except those expressly permitted by planning consent. Further works should not be undertaken until it has been determined that they are permitted or otherwise acceptable to the relevant consenting authority.
- 6.6 Based on the results of the desktop survey, tree works to trees identified in Table 1 would be subject to TPO and may require permission from the Local Authority.
- 6.7 Tree works on the site may require a felling licence<sup>7</sup> unless they are exempt because of the nature of the works or the location. Such licences typically include requirements to replant trees. An arboriculturist should be consulted to confirm whether specific works may require a licence.
- 6.8 It is considered likely that removal of any hedgerow may be subject to Hedgerow Regulations, which covers most non-domestic native hedgerow. Taller coniferous hedgerow is unlikely to be covered. It is possible that hedges may be protected for other reasons such as historical or archaeological significance. If in doubt, the Local Authority should be able to provide confirmation.
- 6.9 Additional consenting mechanisms may apply in certain circumstances including for works affecting protected species; close to overhead lines; in churchyards; close to airports; and for which access is required across or above land owned by third parties (including the Highways and Local Authorities).

---

<sup>7</sup>[https://www.forestry.gov.uk/pdf/FellingLicenceApplicationFormEnglandv2.doc/\\$FILE/FellingLicenceApplicationFormEnglandv2.doc](https://www.forestry.gov.uk/pdf/FellingLicenceApplicationFormEnglandv2.doc/$FILE/FellingLicenceApplicationFormEnglandv2.doc)



### **Detailed Tree Survey**

- 6.10 A detailed tree survey undertaken according to BS5837:2012 will be required to inform a detailed design. This should record all trees, groups of trees, woodland, and hedgerow within influencing distance of the site. It should assess and report on: canopy spread of existing trees and groups; a Root Protection Area (RPA) calculated in accordance with BS 5837; and tree quality category that identifies the quality and value (in a non-fiscal sense) of the existing tree stock, to allow informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.
- 6.11 The level of detail in the tree survey may vary, providing greater resolution in areas of anticipated activity. Interior trees within larger groups or in areas of minimal intervention may be subject to a more general appraisal but should still be included in the survey.

### **Other types of Arboricultural Assessment**

- 6.12 In order to assess the functions and benefits provided by existing trees, to quantify loss, and to justify any mitigation proposals it may be useful to undertake types of assessment that look at specific outcomes rather than simply tree quality (according to BS5837). In particular, *iTree Eco* quantitative modelling of ecosystem services and a biodiversity offsetting analysis may be useful tools within the planning process.

### **Arboricultural Impact Assessment**

- 6.13 An Arboricultural Impact Assessment (AIA) will be required in support of a reserved matter/detailed application. This will identify, evaluate and possibly mitigate the impacts of developing land on the existing tree resource.
- 6.14 One function of the AIA process will be the consideration of trees alongside other project disciplines (layout, drainage, utilities etc.) in order to minimise future conflict and avoid uncalculated expense or undesirable tree loss.
- 6.15 The AIA should include a detailed Tree Removal Plan outlining the proposed schedule of tree works. It may also include details of any tree protection measures that would be required during the construction phase. In certain circumstances it may be appropriate to set out a heads of terms for tree protection and defer the detail to a Condition of planning consent.

### **Mitigation Planting & Landscaping**

- 6.16 The National Planning Policy Framework (NPPF) is a material consideration in the planning process and promotes a presumption in favour of sustainable development. In terms of the natural environment, development should minimise impacts on biodiversity and provide a net gain in biodiversity where possible. In respect of trees, a sustainable development will be one whereby the total number, value or function provided by trees is maintained or increased or where the long-term prospects of the existing tree stock can be substantially improved.

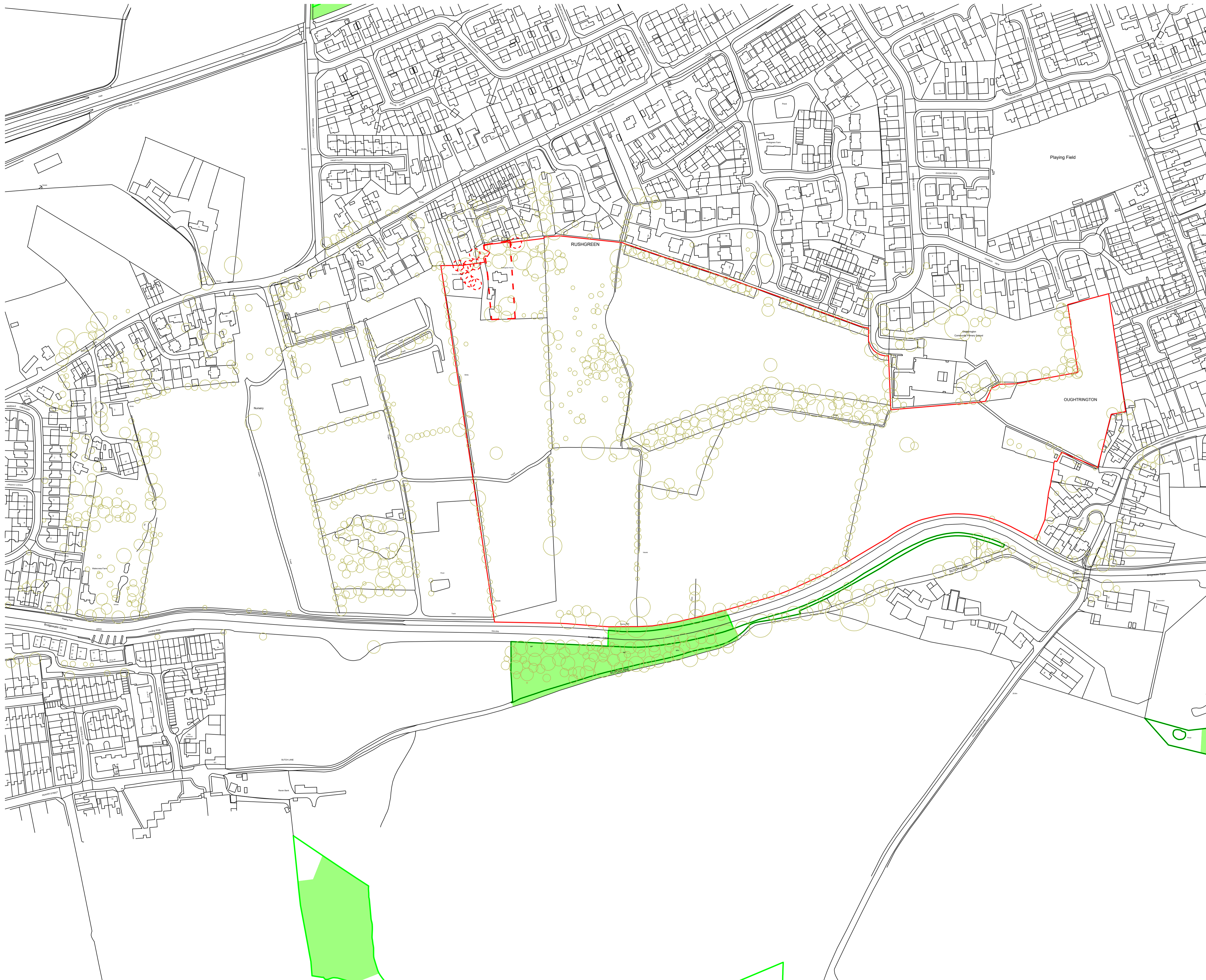
- 6.17 Mitigation for the loss of trees as a result of development will be delivered via the creation of new planting within proposed green infrastructure, this would include: augmenting the existing tree cover with new planting; and creating new formal and informal avenues across the internal road networks.
- 6.18 An estimated 1.34 hectares of tree cover would be removed if the development was carried out in strict accordance with the Masterplan but this may be subject to modification at the detailed design stage. The Masterplan indicates that in general, existing tree cover and arboreal connectivity across the site would be retained. Discussion is provided on the interrelationship of key arboricultural features in Section 5.
- 6.19 Based on the estimated tree loss figures provided above and the opportunities presented by the Masterplan, mitigation for the total loss of tree cover could be delivered within the site proposals.
- 6.20 The extent of replacement tree planting required to mitigate adverse effects should be assessed as part of the AIA process. The advice of a qualified Arboricultural Consultant should be sought during planting plan preparation to ensure species and placement suitability. Any new planting should not be viewed principally as an exercise in landscape architecture and aesthetic design but should be strongly informed by conservation and habitat objectives.

### **Post Development Management**

- 6.21 As much of the site as possible should receive long-term management. Ideally, this would be through a single management plan to allow a single and coherent approach to inform the management of most areas. The objectives for this management plan should be set following consultation with a range of local and national stakeholders and experts.
- 6.22 Areas of the site that will be open to public access should be surveyed regularly for developing hazards. Trees are dynamic living organisms whose structure is constantly changing; even those in good condition can suffer from damage or stress. There is no set approach or period for tree inspection and the best approach should be determined when the future usage, management and ownership of the site has been determined.

## **DRAWINGS**

- Drawing 1 - Arboricultural Desktop Overview**
- Drawing 2 - Illustrative Masterplan Land off Rushgreen Road**



**KEY**  
(This drawing must be reproduced in colour)

- Site Boundary
  - National Tree Map (c.643 trees)
- Mapped designations and classifications**
- Ancient Woodland (with 15m buffer) (None)
  - Tree Preservation Order (Warrington Borough Council) (Yes)
  - Habitat of Principal Importance (NERC: Deciduous Woodland) (None)
  - Habitat of Principal Importance (NERC: Wood Pasture and Parkland) (None)
  - Habitat of Principal Importance (NERC: Traditional Orchard) (None)
  - Community Forest (Mersey Forest and Northern Forest) (All)
  - Ancient/Veteran/Notable Tree (Ancient Tree Inventory) (None)
  - Conservation Area (Warrington Borough Council) (None)

- Vegetation type (National Forest Inventory)**
- Assumed woodland (0ha)
  - Broadleaved (0ha)
  - Conifer (0ha)
  - Coppice (0ha)
  - Coppice with standards (0ha)
  - Failed (0ha)
  - Felled (0ha)
  - Ground preparation (0ha)
  - Low density (0ha)
  - Mixed mainly broadleaved (0ha)
  - Mixed mainly conifer (0ha)
  - Shrub (0ha)
  - Windthrow (0ha)
  - Young trees (0ha)

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| Rev | Description   | Drawn | Approved | Date     |
|-----|---|-------|----------|----------|
| B   | Redline boundary amendment in response to masterplan change | RMG   | JGS      | 14.06.19 |
| A   | Redline boundary amendment                                  | RMG   | JGS      | 29.05.19 |

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Project  
**Lymm, Arboricultural Walkover and Desktop**  
 Title  
**Arboricultural Desktop Overview**

Drawing Number  
**D6929.02.022B**

|                              |                           |
|------------------------------|---------------------------|
| Scale<br><b>1:1,750 @ A1</b> | Date<br><b>11/05/2018</b> |
| Drawn<br><b>TDP</b>          | Checked<br><b>JGS</b>     |
|                              | Approved<br><b>JGS</b>    |

**KEY:**

-  Site Boundary
-  Proposed safeguarded land / Green wedge
-  Existing woodland/trees
-  Proposed woodland/trees
-  Proposed open space
-  Proposed development cells
-  Proposed access
-  Potential Emergency Access
-  Potential pedestrian connections to surrounding footpaths and open space
-  Proposed main road
-  Proposed secondary road
-  Proposed private drive
-  Existing Public Right of Way
-  Proposed footpath network

NB: Masterplan subject to change following detailed survey work.



**een Road  
Lymm, Warrington**

Plan period illustration masterplan

Drwg No: 630DD-15E  
Drawn by: AH  
Rev by: EM  
QM Status: Checked  
Scale: NTS @ A3

Date: 19.09.17  
Checker: CAW  
Rev checker: SR  
Product Status: Issue



Area Measures:

|                            |          |
|----------------------------|----------|
| Total site area:           | 14.99 ha |
| Proposed safeguarded land: | 7.87 ha  |
| Other (existing housing):  | 0.54 ha  |
| Developable area:          | 3.72 ha  |
| Spine road:                | 0.67 ha  |
| Green infrastructure:      | 2.19 ha  |

This site could deliver up to 112 units @ 30 dwellings per hectare.



---

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May 2019

**Peel Holdings (Land and Property) Ltd**

**Agricultural Land Classification**

**Land off Rushgreen Road, Lymm, Warrington**

**Beechwood Court,  
Long Toll, Woodcote,  
RG8 0RR  
01491 684 233  
[readingagricultural.co.uk](http://readingagricultural.co.uk)**

## 1 Introduction

- 1.1 Reading Agricultural Consultants Ltd (RAC) is instructed by Peel Holdings (Land and Property) Ltd to assess the Agricultural Land Classification (ALC) of land off Rushgreen Road, Lymm, Warrington, by means of a desktop appraisal of soil and site characteristics.
- 1.2 Guidance for assessing the quality of agricultural land in England and Wales is set out in the Ministry of Agriculture, Fisheries and Food (MAFF) revised guidelines and criteria for grading the quality of agricultural land (1988)<sup>1</sup>, and summarised in Natural England's Technical Information Note 049<sup>2</sup>.
- 1.3 Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. The principal physical factors influencing grading are climate, site and soil which, together with interactions between them, form the basis for classifying land into one of the five grades.
- 1.4 Grade 1 land is excellent quality agricultural land with very minor or no limitations to agricultural use, and Grade 5 is very poor quality land, with severe limitations due to adverse soil, relief, climate or a combination of these. Grade 3 land is subdivided into Subgrade 3a (good quality land) and Subgrade 3b (moderate quality land). Land which is classified as Grades 1, 2 and 3a in the ALC system is defined as best and most versatile agricultural land.

## 2 Site and climatic conditions

### General features, land form and drainage

- 2.1 The site occupies approximately 24ha, predominantly comprising permanent grassland. Non-agricultural land includes copses and a commercial estate. The site is bounded to the north and east by the settlement of Rushgreen, to the west by residential properties off Mardale Crescent and to the south by the Bridgewater Canal.

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<sup>1</sup> **MAFF (1988)**. *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications.

<sup>2</sup> **Natural England (2012)**. *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition.



2.2 Topography in the north and west of the site is largely level at around 20m above Ordnance Datum (AOD), sloping down from around 25m AOD in the south and south-east.

### Agro-climatic conditions

2.3 Agro-climatic data for the site have been interpolated from the Meteorological Office's standard 5km grid point data set at a representative altitude of 20m AOD, and are given in Table 1. Climate at the site is wet and moderately warm with moderate moisture deficits. The number of field capacity days is greater than is typical for lowland England and is unfavourable for providing opportunities for agricultural field work.

**Table 1:** Local agro-climatic conditions

| Parameter                          | Value      |
|------------------------------------|------------|
| Average Annual Rainfall            | 835mm      |
| Accumulated Temperatures >0°C      | 1,430 day° |
| Field Capacity Days                | 197 days   |
| Average Moisture Deficit, wheat    | 90mm       |
| Average Moisture Deficit, potatoes | 78mm       |

### Soil parent material and soil type

- 2.4 The principal underlying geology mapped by the British Geological Survey<sup>3</sup> across the site is the Wilmslow Sandstone Formation, comprising red-brown to brick-red sandstones with sporadic siltstones.
- 2.5 Superficial deposits across central and northern parts of the site include sand and gravel of glaciofluvial origin. At the southern boundary and to the east of the site, the bedrock is overlain by the Shirdley Hill Sand Formation comprising of fine sands with lower peat layers.
- 2.6 The Soil Survey of England and Wales soil association mapping<sup>4</sup> (1:250,000 scale) shows the Blackwood association across the site. Profiles within this association are characterised by deep sandy and coarse loamy soils which are affected by fluctuating groundwater. Where drainage is poor soils tend to be waterlogged for long periods during winter, commonly assessed as Wetness Class (WC) III or IV; however where the regional water table has been lowered and soils are drained they may be of WC I or II<sup>5</sup>.

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<sup>3</sup> **British Geological Survey (2019).** *Geology of Britain viewer*, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

<sup>4</sup> **Soil Survey of England and Wales (1984).** *Soils of Midland and Western England (1:250,000)*, Sheet 3

<sup>5</sup> **Ragg et al. (1984).** *Soils and Their Use in Midland and Western England, Soil Survey of England and Wales*, Bulletin 12. Harpenden

### 3 Agricultural land quality

#### Existing data

- 3.1 Provisional ALC mapping shows the site as Grade 2. However, Natural England's TIN049 explains that:

*"These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended ..."*

- 3.2 Most of the site has been surveyed by MAFF, although the detailed reports are not available from Natural England. Of 18ha surveyed, just over half of the area is Grade 2 and the remainder is Subgrade 3a.
- 3.3 Sandy and coarse loamy soils of the Blackwood association are variably affected by groundwater. Under the climatic conditions of the site, with 197 FCDs, for such soils to be of Grade 2 and Subgrade 3a, they are most likely to be of WC II or III.
- 3.4 The areas of each ALC grade are shown in Figure 8025-1g and given in Table 2.

**Table 2:** Agricultural land classification

| Grade            | Description       | Area (ha) | %   |
|------------------|-------------------|-----------|-----|
| 2                | Very good quality | 9.9       | 41  |
| 3a               | Good quality      | 8.6       | 36  |
| Non-Agricultural |                   | 5.5       | 23  |
| Total            |                   | 24.0      | 100 |



- |   |                             |                                |   |                                |
|---|-----------------------------|--------------------------------|---|--------------------------------|
|  | Grade 1 - excellent quality | } Best and most versatile land |  | Subgrade 3b - moderate quality |
|  | Grade 2 - very good quality |                                |  | Grade 4 - poor quality         |
|  | Subgrade 3a - good quality  |                                |  | Grade 5 - very poor quality    |
|  | Not Present                 |                                |   |                                |



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Scale 1:10,000@A4 June/2018

Figure RAC8025-1g: MAFF ALC

Site: Land off Rushgreen Road, Lymm

Client: Peel Holdings (Land and Property) Ltd

**Reading  
Agricultural  
Consultants**



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## **NOISE SCREENING ASSESSMENT**

on behalf of

**PEEL HOLDINGS (LAND & PROPERTY)  
LTD**

for the site at

**LAND OFF RUSHGREEN ROAD, LYMM**

**REPORT DATE: 12TH JUNE 2019**

**REPORT NUMBER: 101866-V3**

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Company registration number 5201673





# Summary

Miller Goodall Ltd (MG) has, on behalf of Peel Holdings (Land & Property) Ltd, undertaken a desktop noise screening assessment and a preliminary walk over survey to review the potential issues associated with noise on a proposed residential development comprised of 352-411 dwellings. The study has been undertaken to support the promotion of the land through the Warrington Local Plan.

The study concludes that noise should not be a barrier to residential development on the land except for the areas in close proximity to industrial areas or commercial uses where additional mitigation may be required.

In relation to the impact of the development on the noise environment, information is limited and significance will need to be assessed via detailed modelling at a later date and mitigation measures considered.

Given the location of the industrial and commercial noise sources a full noise assessment would be required at the planning stage to ensure all noise sources are fully assessed and appropriate mitigation measures identified as part of a full application.

### Record of changes

Prepared By Jo Miller MIOA

Reviewed By Matt Wilson MIOA

Signed



Signed



Date

12th June 2019

Date

12th June 2019

| Version | Date                       | Change        | Initials |
|---------|----------------------------|---------------|----------|
| 1       | 9 <sup>th</sup> July 2018  | Final issue   | JLM      |
| 2       | 10 <sup>th</sup> May 2019  | Minor Changes | RM       |
| 3       | 12 <sup>th</sup> June 2019 | Minor Changes | RM       |
|         |                            |               |          |
|         |                            |               |          |
|         |                            |               |          |

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# 1 Introduction

- 1.1 This noise screening report is submitted in support of a proposed housing allocation within the Warrington Local Plan for a site located on the Land off Rushgreen Road, Lymm. The site sits within the administrative boundary of Warrington Metropolitan Borough Council (WMBC).
- 1.2 This report provides a review of the existing noise sources in proximity to the proposed development site and assesses the potential impact of the proposed development on the local noise environment.
- 1.3 The external noise in urban areas is generally dominated by road traffic sources, along with industrial and commercial sources in some areas. Generally residential areas do not generate significant noise sources of concern.
- 1.4 Noise impacts need to be considered as part of the planning process both to ensure the new development does not create adverse noise impacts on existing receptors and also that new developments are not impacted by the existing noise sources.
- 1.5 An initial review of the area has been undertaken to determine existing and future noise sources and noise sensitive receptors and any potential key noise issues have been identified together with any additional work which may be required.

# 2 Site Description

- 2.1 The site is approximately 24 ha in size and currently comprises of agricultural land. The site is located off Rushgreen Road in Lymm. Rushgreen Road lies to the north of the site, with housing developments and a Sainsbury's supermarket running between the site and Rushgreen Road. Along the southern boundary is the Manchester Canal, beyond this is agricultural fields and housing developments. To the east is Oughtington Community Primary School.
- 2.2 The site location is shown in Appendix 1 and the illustrative masterplan is shown in Appendix 2.

# 3 Proposed Development

- 3.1 The proposed development consists of approximately 352-411 dwellings, along with a Spine Road and school extension.

# 4 Policy Context

## 4.1 Noise Policy Statement for England

- 4.1.1 The Noise Policy Statement for England (NPSE<sup>1</sup>), published in March 2010, sets out the long-term vision of Government noise policy. The Noise Policy aims, as presented in this document, are:

---

<sup>1</sup>Noise Policy Statement for England, Defra, March 2010

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse effects on health and quality of life;
- mitigate and minimise adverse effects on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.”

4.1.2 The NPSE makes reference to the concepts of NOEL (No Observed Effect Level) and LOAEL (Lowest Observed Adverse Effect Level) as used in toxicology but applied to noise impacts. It also introduces the concept of SOAEL (Significant Observed Adverse Effect Level) which is described as the level above which significant adverse effects on health and the quality of life occur.

4.1.3 The first aim of the NPSE is to avoid significant adverse effects, taking into account the guiding principles of sustainable development (as referenced in Section 1.8 of the Statement). The second aim seeks to provide guidance on the situation that exists when the potential noise impact falls between the LOAEL and the SOAEL, in which case:

“...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development”.

4.1.4 Importantly, the NPSE goes on to state:

“This does not mean that such adverse effects cannot occur”.

4.1.5 The Statement does not provide a noise-based measure to define SOAEL, acknowledging that the SOAEL is likely to vary depending on the noise source, the receptor and the time in question. NPSE advises that:

“Not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available”

4.1.6 It is therefore likely that other guidance will need to be referenced when applying objective standards for the assessment of noise, particularly in reference to the SOAEL, whilst also taking into account the specific circumstances of a proposed development.

## 4.2 National Planning Policy Framework

4.2.1 The National Planning Policy Framework (NPPF<sup>2</sup>) initially published in March 2012, was updated in February 2019. One of the documents that the NPPF replaces is Planning Policy Guidance Note 24 (PPG 24) “Planning and Noise”<sup>3</sup>.

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<sup>2</sup> National Planning Policy Framework, Ministry of Housing, Communities and Local Government, July 2018

<sup>3</sup> Planning Policy Guidance 24: Planning and Noise, DCLG, September 1994

4.2.2 The revised NPPF advises that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives). One of these is an environmental objective which is described in par. 8 (c):

*“to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”*

4.2.3 At par. 170 we are advised that:

*“Planning policies and decisions should contribute to and enhance the natural and local environment by:*

*e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.*

4.2.4 Par. 180 goes on to state:

*“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*

*a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*

*b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.*

## 4.3 Planning Practice Guidance – Noise

4.3.1 As of March 2014, a Planning Practice Guidance<sup>4</sup> for noise was issued which provides additional guidance and elaboration on the NPPF. It advises that when plan-making and decision-taking, the Local Planning Authority should consider the acoustic environment in relation to:

- Whether or not a significant adverse effect is occurring or likely to occur;
- Whether or not an adverse effect is occurring or likely to occur; and
- Whether or not a good standard of amenity can be achieved.

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<sup>4</sup> Planning Practice Guidance – Noise, <http://planningguidance.planningportal.gov.uk/blog/guidance/noise/>, 06 March 2014

4.3.2 In line with the Explanatory Note of the NPSE, the PPG goes on to reference the LOAEL and SOAEL in relation to noise impact. It also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome. However, in line with the NPSE, no objective noise levels are provided for LOAEL or SOAEL although the PPG acknowledges that:

“...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation”.

4.3.3 Examples of these factors include:

- The source and absolute noise level of the source along with the time of day that it occurs;
- Where the noise is non-continuous, the number of noise events and pattern of occurrence;
- The frequency content and acoustic characteristics of the noise;
- The effect of noise on wildlife;
- The acoustic environment of external amenity areas provided as an intrinsic part of the overall design;
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

4.3.4 The PPG also provides general advice on the typical options available for mitigating noise. It goes on to suggest that Local Plans may include noise standards applicable to proposed developments within the Local Authority's administrative boundary, although it states that:

“Care should be taken, however, to avoid these being implemented as fixed thresholds as specific circumstances may justify some variation being allowed”.

4.3.5 The PPG was amended in December 2014 to clarify guidance on the potential effect of noise from existing businesses on proposed new residential accommodation. Even if existing noise levels are intermittent (for example, from a live music venue), noise will need to be carefully considered and appropriate mitigation measures employed to control noise at the proposed accommodation.

## 5 Acoustic Standards and Guidance

### 5.1 ProPG: Planning & Noise – Professional Practice Guidance on Planning & Noise – New Residential Development – May 2017

5.1.1 ProPG: Planning and Noise is new guidance with the aim of delivering sustainable development and promoting good health and well-being through the effective management of noise which may impact on new residential developments. The guidance aims to complement the national planning policy and encourages the use of good acoustic design at the earliest phase of the planning process. It builds upon the recommendations of various other guidance documents including NPPF, NPSE and PPG-Noise, BS 8233 and WHO.

5.1.2 The guidance is applicable to new residential developments which would be exposed predominantly to noise from existing transport sources. The ProPG advocates a risk based approach to noise using a two-stage process:

- Stage 1 – an initial noise risk assessment of the proposed development site; and

- Stage 2 – a systematic consideration of four key elements: –
  - Element 1 – demonstrating a ‘Good Acoustic Design Process’;
  - Element 2 – observing internal ‘Noise Level Guidelines’;
  - Element 3 – undertaking an ‘External Amenity Area Noise Assessment’; and
  - Element 4 – consideration of ‘Other Relevant Issues’.

5.1.3 The ProPG approach is underpinned by the preparation and delivery of an ‘Acoustic Design Statement’ (ADS), whereby the higher the risk for noise at the site, the more detailed the ADS. The ADS should address the following issues:

- Present the initial site noise risk assessment, including the pre-development acoustic conditions prior to development;
- Describe the external noise levels that occur across the site both before and after any necessary mitigation measures have been incorporated. The external noise assessment with mitigation measures in place should use an informed judgement of typical worst-case conditions;
- Demonstrate how good acoustic design is integrated into the overall design and how the proposed acoustic design responds to specific circumstances of the site;
- Confirm how the internal noise level guidelines will be achieved, including full details of the design measures and building envelope specifications;
- A detailed assessment of the potential impact on occupants should be undertaken where individual noise events are expected to exceed 45 dB  $L_{AF,max}$  more than 10 times a night inside bedrooms;
- Priority should be given to enable the use of openable windows where practical across the development. Where this is not practical to achieve the internal noise level guidelines with windows open, then full details of the proposed ventilation and thermal comfort arrangements must be provided;
- Present the findings of the external amenity area noise assessment;
- Present the findings of the assessment of other relevant issues;
- Confirm for a low risk site how adverse impacts of noise will be mitigated and minimised;
- Confirm for a medium or high noise risk site how adverse impacts of noise will be mitigated and minimised and clearly demonstrate that a significant adverse noise impact has been avoided.

5.1.4 ProPG target noise levels are based on existing guidance from BS 8233 and WHO (see below). Table 1 below outlines the guidance noise levels for different room types during day and night times.

**Table 1: ProPG guideline indoor ambient noise levels for dwellings**

| Activity                   | Location         | 07:00 to 23:00       | 23:00 to 07:00                            |
|----------------------------|------------------|----------------------|---|
| Resting                    | Living Room      | 35 dB $L_{Aeq,16hr}$ | -   |
| Dining                     | Dining room/area | 40 dB $L_{Aeq,16hr}$ | -   |
| Sleeping (daytime resting) | Bedroom          | 35 dB $L_{Aeq,16hr}$ | 30 dB $L_{Aeq,8hr}$<br>45 dB $L_{Amax,F}$ |

5.1.5 The footnotes to this table suggest that internal noise level limits can be relaxed by up to 5 dB where development is considered necessary or desirable, and still represent “reasonable” internal conditions. They also suggest that in such cases, external levels which exceed WHO guidance target levels (see WHO section below) may still be acceptable provided that reasonable internal noise levels are achieved. Although, where the acoustic environment of external amenity areas is intrinsic to the overall design, “noise levels should ideally not be above the range 50 – 55 dB  $L_{Aeq,16hr}$ ”. The wording of ProPG (and BS 8233:2014) is clear that exceedance of guideline noise levels in external areas should not prohibit the development of desirable developments in any event.

## 5.2 BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings

5.2.1 This standard provides recommended guideline values for internal noise levels within dwellings which are similar in scope to guideline values contained within the World Health Organisation (WHO) document, Guidelines for Community Noise (1999)<sup>5</sup>. These guideline noise levels are shown in Table 2, below.

<sup>5</sup> World Health Organisation Guidelines for Community Noise, 1999

**Table 2: BS 8233: 2014 guideline indoor ambient noise levels for dwellings**

| Location         | Activity                   | 07:00 to 23:00       | 23:00 to 07:00      |
|------------------|----------------------------|----------------------|---------------------|
| Living Room      | Resting                    | 35 dB $L_{Aeq,16hr}$ | -                   |
| Dining room/area | Dining                     | 40 dB $L_{Aeq,16hr}$ | -                   |
| Bedroom          | Sleeping (daytime resting) | 35 dB $L_{Aeq,16hr}$ | 30 dB $L_{Aeq,8hr}$ |

5.2.2 BS 8233:2014 advises that:

*“regular individual noise events...can cause sleep disturbance. A guideline value may be set in terms of SEL<sup>6</sup> or  $L_{Amax,F}$  depending on the character and number of events per night. Sporadic noise events could require separate values”.*

5.2.3 BS 8233:2014 adopts guideline external noise values provided in WHO for external amenity areas such as gardens and patios. The standard states that it is “desirable” that the external noise does not exceed 50 dB  $L_{Aeq,T}$  with an upper guideline value of 55 dB  $L_{Aeq,T}$  whilst recognising that development in higher noise areas such as urban areas or those close to the transport network may require a compromise between elevated noise levels and other factors that determine if development in such areas is warranted. In such circumstances, the development should be designed to achieve the lowest practicable noise levels in external amenity areas.

### 5.3 World Health Organisation (WHO) Guidelines for Community Noise 1999

5.3.1 The WHO Guidelines 1999 recommends that to avoid sleep disturbance, indoor night-time guideline noise values of 30 dB  $L_{Aeq}$  for continuous noise and 45 dB  $L_{AFmax}$  for individual noise events should be applicable. It is to be noted that the WHO Night Noise Guidelines for Europe 2009<sup>7</sup> makes reference to research that indicates sleep disturbance from noise events at indoor levels as low as 42 dB  $L_{AFmax}$ . The number of individual noise events should also be taken into account and the WHO guidelines suggest that indoor noise levels from such events should not exceed approximately 45 dB  $L_{AFmax}$  more than 10 – 15 times per night.

5.3.2 The WHO document recommends that steady, continuous noise levels should not exceed 55 dB  $L_{Aeq}$  on balconies, terraces and outdoor living areas. It goes on to state that to protect the majority of individuals from moderate annoyance, external noise levels should not exceed 50 dB  $L_{Aeq}$ .

<sup>6</sup> Sound exposure level or  $L_{AE}$

<sup>7</sup> WHO Night Noise Guidelines for Europe 2009

## 5.4 BS 4142: 2014 'Methods for rating and assessing industrial and commercial sound'

5.4.1 BS 4142: 2014<sup>8</sup> provides guidance on the assessment of the likelihood of complaints relating to noise from industrial sources. It replaced the 1997 edition of the Standard in October 2014. The key aspects of the Standard are summarised below.

5.4.2 The standard presents a method of assessing potential noise impact by comparing the noise level due to industrial sources (the Rating Level) with that of the existing background noise level at the nearest noise sensitive receiver in the absence of the source (the Background Sound Level).

5.4.3 The Specific Noise Level - the noise level produced by the source in question at the assessment location - is determined and a correction applied for certain undesirable acoustic features such as tonality, impulsivity or intermittency. The corrected Specific Noise Level is referred to as the Rating Level.

5.4.4 In order to assess the noise impact, the Background Sound Level is arithmetically subtracted from the Rating Level. The standard states the following:

- *Typically, the greater this difference, the greater the magnitude of the impact,*
- *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context,*
- *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context,*
- *The lower the Rating Level is relative to the measured Background Sound Level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the Rating Level does not exceed the Background Sound Level, this is an indication of the specific sound source having a low impact, depending on the context.*

5.4.5 In addition to the margin by which the Rating Level of the specific sound source exceeds the Background Sound Level, the 2014 edition places emphasis upon an appreciation of the context, as follows:

*An effective assessment cannot be conducted without an understanding of the reason(s) for the assessment and the context in which the sound occurs/will occur. When making assessments and arriving at decisions, therefore, it is essential to place the sound in context.*

5.4.6 The 2014 edition of BS 4142 also introduces a requirement to consider and report the uncertainty in the data and associated calculations and to take reasonably practicable steps to reduce the level of uncertainty.

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<sup>8</sup> BS 4142:2014 Methods for rating and assessing industrial and commercial sound



## 6 Impact of Existing Noise Sources on the Development

### 6.1 Noise Mapping

6.1.1 Environmental noise mainly consists of noise from transport sources, such as road, rail and aviation. Department for Environment, Food and Rural Affairs (DEFRA) is responsible for creating noise maps and drawing up Action Plans under the Environmental Noise (England) Regulations 2006 (as amended), which requires Defra to:

- adopt noise maps which show people's exposure to environmental noise;
- adopt action plans based on the results of noise mapping
- aims to preserve environmental noise quality where it is good; and
- provides information to the public on environmental noise and its effects.

6.1.2 Noise mapping has been undertaken by Department of Environment Food and Rural Affairs (DEFRA) in 2012. Maps have been provided for main noise sources including road traffic noise and railway lines. The noise map for the area is shown for road traffic noise in Appendix 3. The results show the predicted  $L_{Aeq,16hour}$  results around the site, taken at a grid height of 4 m.

### 6.2 Road Traffic Noise

6.2.1 The site lies to the south of Rushgreen Road and to the west of Oughtrington Lane, which are the main potential noise sources in relation to road traffic noise. The M6 is approximately 2.5 km from the site. Given the distance to these sources it is unlikely that the noise impacts in relation to traffic noise are going to be significant for this site.

6.2.2 There do not appear to be any parcels of land which are likely to be impacted by the road traffic noise. These are areas where the road traffic noise levels are predicted to exceed 55 dB  $L_{Aeq,16hour}$ .

6.2.3 The road network in this area is a not a significant noise source for the area and it is unlikely that further assessments would be needed to ensure that National noise standards are not exceeded.

### 6.3 Railway Noise

6.3.1 Results of the noise mapping produced on behalf of DEFRA for the railway show that there are no existing railways in close proximity to the site.

6.3.2 The proposed Golbourn Link of HS2 railway line runs to the east of this proposed site and is approximately 1.5 km from the nearest point of the development. We would therefore not envisage that the proposed HS2 line would impact significantly on the site.

### 6.4 Industrial and Commercial Noise

6.4.1 The main industrial/commercial areas which have the potential to impact on the development site have been identified from a desktop internet search and a site visit. The sources identified are detailed in Table 3 below.

**Table 3: Industrial/Commercial Sources with Potential to Impact on the Site**

| Location                         | Name of Site                          | Type of Operation                      | Types of Noise Sources              |
|----------------------------------|---------------------------------------|--|-------------------------------------|
| Rushgreen Road                   | Sainsbury's Supermarket               | Food store                             | Plant/machinery; deliveries         |
| Southern site boundary           | Bridgewater Canal                     | Canal moorings and canal traffic       | Watercraft engine noise; machinery. |
| Off Rushgreen Road               | Employment area                       | Mixed uses (including Airport Parking) | Vehicle movements                   |
| Eastern part of development site | Oughtrington Community Primary School | School                                 | People noise, external play areas   |

6.4.2 A detailed noise assessment has not been undertaken in relation to these noise sources and consequently a noise assessment would be prepared and submitted alongside future applications to consider these sources in more detail.

## 7 Impact of Noise from the Proposed Development

### 7.1 Transport Noise

- 7.1.1 New residential development and infrastructure developments of this size will result in additional vehicles on the local road network. At this stage traffic data is not available to allow an assessment to evaluate the extent of noise increase as a result of this development. If there are any roads with a 25% increase in traffic flow this may necessitate the requirement for a detailed noise assessment.
- 7.1.2 The Transport Appraisal undertaken by i-Transport identifies the proportional impact of traffic generated by the proposed development at AM and PM peak hours. It does not identify any roads with a traffic flow increase of 25% or more. This is an indication that there will not be a significant impact as a result of increased road traffic noise. This can be quantified at a later date when AAWT traffic data is available.
- 7.1.3 Noise impacts from the new infrastructure projects will need to be considered in terms of their noise impact as more information becomes available.

## 7.2 Construction Noise and Vibration Impacts

- 7.2.1 It is common for the control of construction noise, vibration and dust emission to be addressed by the application of Best Practicable Means (BPM) and detailed within a Construction and Environmental Management Plan (CEMP). The impact of construction noise from a development of this size is likely to be the main noise impacting on existing noise sensitive receptors, albeit over a relatively short period of time.
- 7.2.2 Prior to commencement of works, a quantitative noise impact assessment using guidance in BS 5228<sup>9</sup> on site may also be required but in our experience is usually unnecessary, unless there are nearby high risk or noise sensitive receptors, provided a robust CEMP is in place and agreed upon by the Local Authority.
- 7.2.3 Warrington Borough Council are likely to have their own recommended wording for planning conditions relating to the control of noise and vibration from construction works.

## 7.3 New Commercial and Educational developments

- 7.3.1 Any new commercial, retail and educational developments will need to be considered as part of the planning application for the site. The likely noise sources from these areas will need detailed prediction to ensure their impact is not significant on existing or future residential uses.
- 7.3.2 Good acoustic design incorporated at an early stage in the development of the site will help to reduce the impact of existing noise on these sources along with protecting existing noise sensitive receptors.

## 7.4 Protecting areas from increased noise.

- 7.4.1 The NPPF recommends protecting areas of tranquillity and areas prized for their recreational and amenity value. Table 4 identifies areas which it is felt meets this criteria.

**Table 4: Locations where noise should be protected**

| Name of Site   | Type of Operation | Reason  |
|----------------|-------------------|---|
| Lymm Golf Club | Golf Club         | To protect the peaceful use of the golf course.   |
| Spud Wood      | Woodland          | To protect the peaceful use of the woodland area. |

<sup>9</sup> BS 5228 Noise and Vibration Control on Construction and Open Sites - Part 1: Noise: 2009+A1:2014

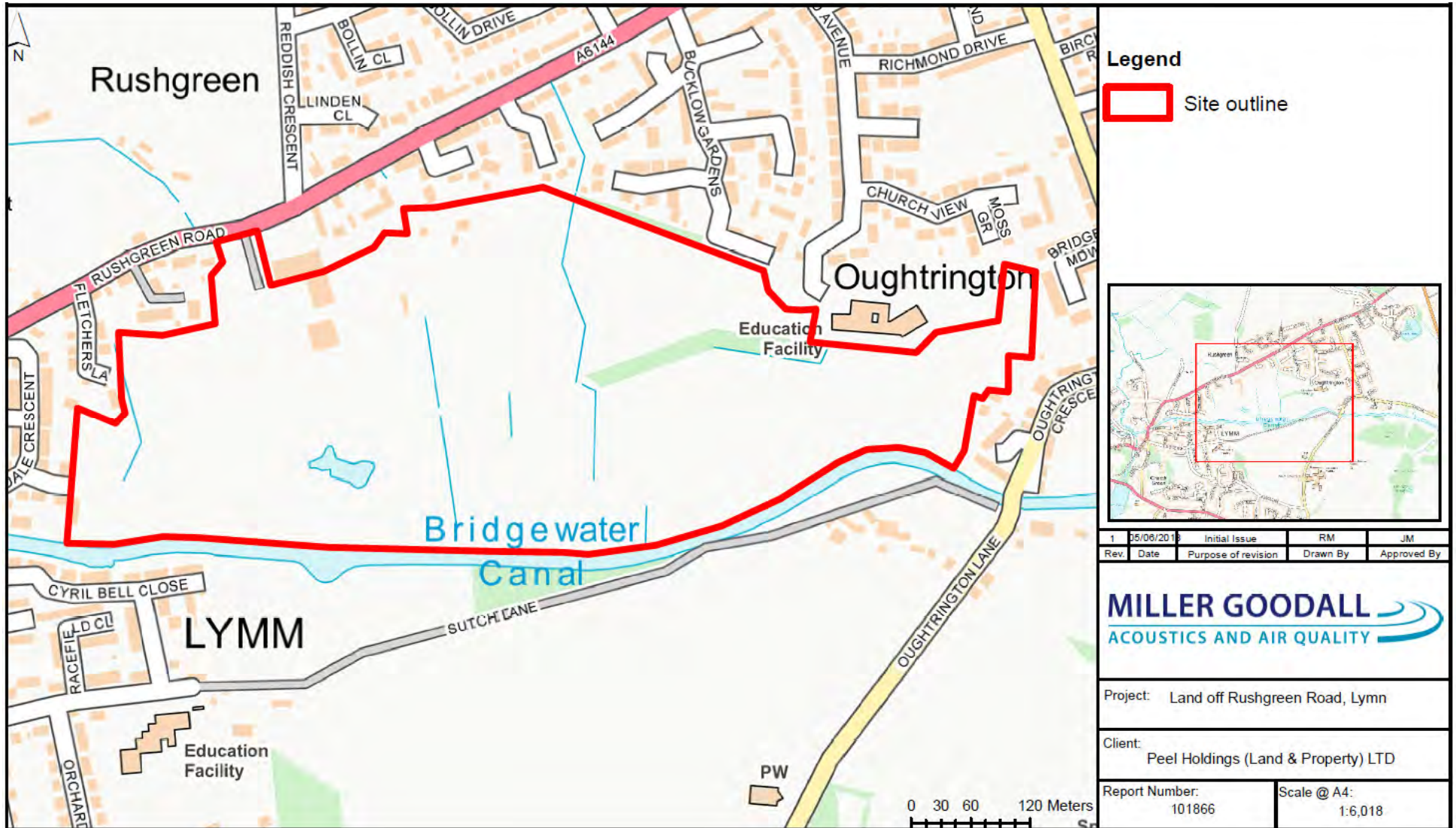
- 7.4.2 The use of good acoustic design would enable the site to be developed to protect the identified tranquil areas. This would be considered as part of the noise assessment submitted to support the planning application.

## 8 Summary and Conclusions

- 8.1 A noise screening assessment and site visit have been undertaken to identify any potential noise sources which are likely to have an impact on the development of a site for a housing and infrastructure development. The information indicates that the impact of noise would not be a barrier to residential development on the site.
- 8.2 This report has recommended a more detailed assessment for the commercial and industrial noise sources around the site, this assessment may include the need for noise mitigation for proposed dwellings close to the Industrial/Commercial noise sources identified in this report. Mitigation may include buffer zones between residential developments and noise sources, noise barriers, and glazing and ventilation strategies to ensure acceptable internal noise levels within proposed dwellings.
- 8.3 It is recommended that;
- Noise from industrial and commercial sources located around the periphery of the site would need to be assessed in more detail as part of a detailed planning submission for the site.
  - Any new commercial or educational facilities would need to be carefully considered as part of the application to ensure the impact on existing residential premises is assessed and mitigated as necessary.
  - There are areas within the site and located close to the site which are considered tranquil areas and careful design of the masterplan should aim to protect the noise environment at these locations.
- 8.4 An assessment of the impact of the development in terms of noise from; transport, new infrastructure, construction noise and commercial and retail sources would need to be assessed as part of the planning submission for the application site. Good acoustic design should be considered as part of the development of the masterplan to protect existing noise sensitive receptors.
- 8.5 We are of the opinion that the site is suitable for residential development. Mitigation for industrial/commercial noise sources may be required for dwellings within close proximity to industrial/commercial noise sources, and this will be specified by a detailed noise assessment which will assist in the detailed design phase for the site.

# APPENDICES

## Appendix 1: Site location



## Appendix 2: Illustrative Masterplan for the site



|                       |         |                              |                |
|-----------------------|---------|------------------------------|----------------|
| <b>Area 1:</b>        | 3.29 ha | <b>Area 4:</b>               | 8.95 ha        |
| Developable Area:     | 1.98 ha | Developable Area:            | 3.61 ha        |
| Spine Road:           | 0.01 ha | Spine Road:                  | 0.40 ha        |
| Green Infrastructure: | 1.30 ha | Green Infrastructure:        | 4.94 ha        |
| <b>Area 2:</b>        | 9.02 ha | <b>Total Site Area:</b>      | <b>24.0 ha</b> |
| Developable Area:     | 4.56 ha | <b>(Areas 1, 2, 3 and 4)</b> |                |
| Spine Road:           | 0.66 ha | Total Developable Area:      | 11.74 ha       |
| School Extension:     | 0.60 ha | School Extension:            | 0.60 ha        |
| Green Infrastructure: | 3.20 ha | Spine Roads:                 | 1.15 ha        |
| <b>Area 3:</b>        | 2.74 ha | Green Infrastructure:        | 10.51 ha       |
| Developable Area:     | 1.59 ha | <b>Potential Yield:</b>      |                |
| Spine Road:           | 0.08 ha | @30 dph:                     | 352 units      |
| Green Infrastructure: | 1.07 ha | @35 dph:                     | 411 units      |

LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL PLANNING  
MASTERPLANNING  
URBAN DESIGN

**RANDALL  
THORP**

Canada House, 3 Chepstow Street, Manchester M1 5FW  
0261 228 7721 mail@randallthorp.co.uk www.randallthorp.co.uk

**KEY:**

- Site Boundary
- Water body
- Existing woodland/trees
- Proposed woodland/trees
- Proposed open space
- Proposed development cells
- Proposed 0.6ha school extension
- Proposed access
- Potential Emergency Access
- Proposed main road
- Proposed secondary road
- Proposed private drive
- Existing Public Right of Way
- Proposed footpath network

NB: Masterplan subject to change following detailed survey work.

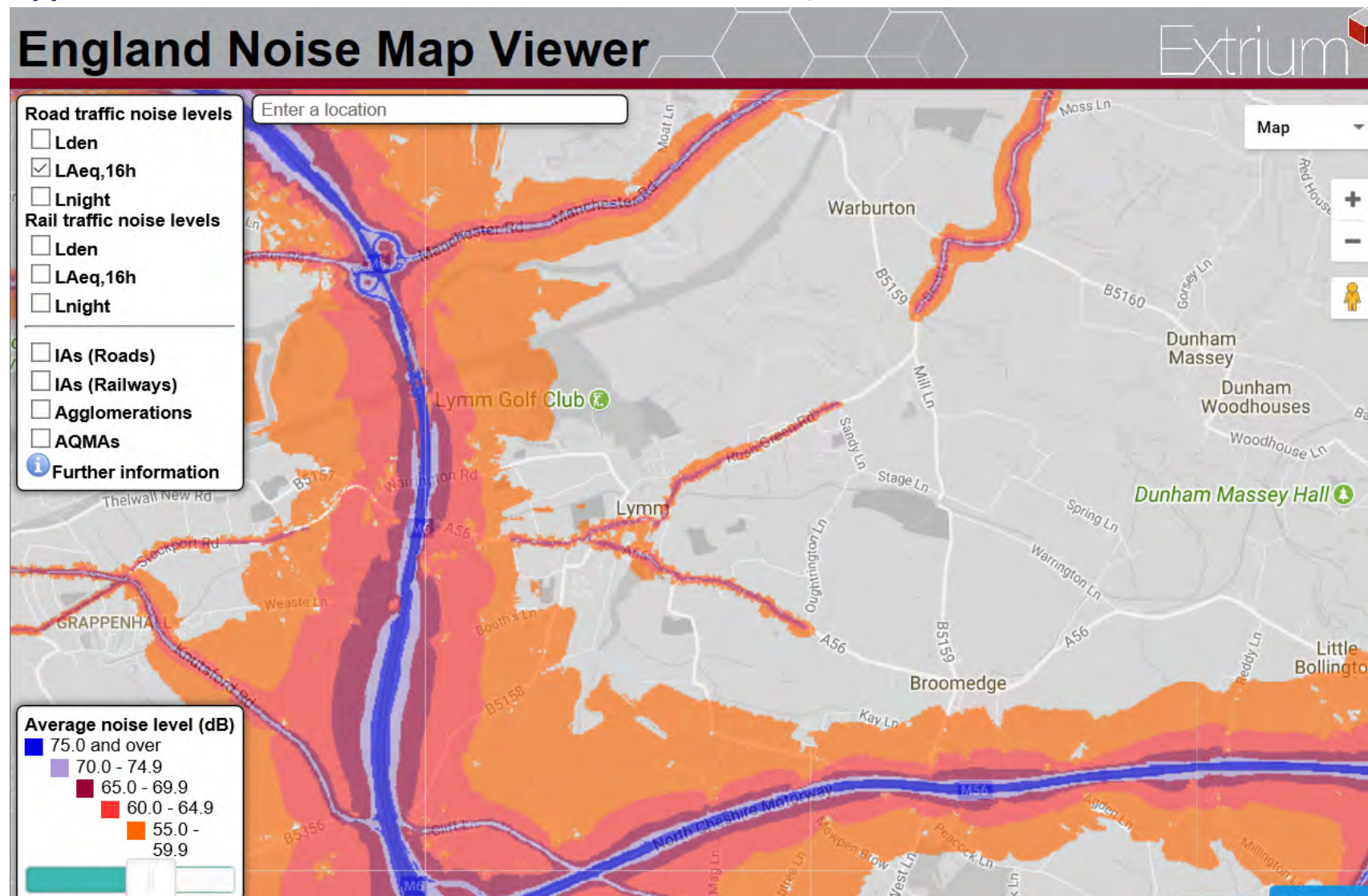


### Land off Rushgreen Road Lymm, Warrington

#### Illustrative Masterplan - Area 4

Drwg No: 630DD-16A Date: 19.09.17  
 Drawn by: AH Checker: CAW  
 Rev by: AH Rev checker: CAW  
 QM Status: Checked Product Status: Confidential review  
 Scale: NTS @ A3

### Appendix 3: Road Traffic Predicted Noise Contours $L_{Aeq,16hour}$





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## Glossary of Terms

- Decibel (dB)** The unit used to quantify sound pressure levels; it is derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20  $\mu\text{Pa}$ , the threshold of normal hearing is in the region of 0 dB, and 140 dB is the threshold of pain. A change of 1 dB is usually only perceptible under controlled conditions.
- dB  $L_A$**  Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB  $L_A$  broadly agree with an individual's assessment of loudness. A change of 3 dB  $L_A$  is the minimum perceptible under normal conditions, and a change of 10 dB  $L_A$  corresponds roughly to halving or doubling the loudness of a sound. The background noise level in a living room may be about 30 dB  $L_A$ ; normal conversation about 60 dB  $L_A$  at 1 meter; heavy road traffic about 80 dB  $L_A$  at 10 meters; the level near a pneumatic drill about 100 dB  $L_A$ .
- $L_{A90,T}$**  The A weighted noise level exceeded for 90% of the specified measurement period ( $T$ ). In BS 4142: 1997 it is used to define background noise level.
- $L_{Aeq,T}$**  The equivalent continuous sound level. The sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period ( $T$ ).  $L_{Aeq,T}$  is used to describe many types of noise and can be measured directly with an integrating sound level meter.
- $L_{Amax}$**  The highest A weighted noise level recorded during the time period. It is usually used to describe the highest noise level that occurred during the event.
- NOEL** No observed effect level: the level of noise exposure below which no effect at all on health or quality of life can be detected.
- LOAEL** Lowest observed adverse effect level: the level of noise exposure above which adverse effects on health or quality of life can be detected.
- SOAEL** Significant observed adverse effect level: the level of noise exposure above which significant adverse effects on health or quality of life can be detected.

**MILLER GOODALL**   
ACOUSTICS AND AIR QUALITY

Warrington Borough Council Local Plan

Land Off Rushgreen Road, Lymm

Transport Appraisal

Client: Peel Investments (North) Ltd

i-Transport Ref: SEE/dc/ITM13244-002B R

Date: 12 June 2019

Land Off Rushgreen Road, Lymm

Transport Appraisal

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Date: 12 June 2019

## Quality Management

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| <b>APPENDIX D.</b> | <b>Location Of Key Facilities And Services</b>              |
| <b>APPENDIX E.</b> | <b>Potential Site Accesses Via Bucklow Gardens</b>          |
| <b>APPENDIX F.</b> | <b>Potential Emergency Vehicle Access Via Howard Avenue</b> |
| <b>APPENDIX G.</b> | <b>Potential Site Access From Rushgreen Road</b>            |
| <b>APPENDIX H.</b> | <b>Google Traffic Maps</b>                                  |
| <b>APPENDIX I.</b> | <b>2017 Observed Traffic Flows</b>                          |
| <b>APPENDIX J.</b> | <b>2037 Baseline Traffic Flows</b>                          |
| <b>APPENDIX K.</b> | <b>Development Traffic Flows</b>                            |
| <b>APPENDIX L.</b> | <b>Local Highway Network Plan</b>                           |

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## SECTION 1 Introduction

### 1.1 Warrington Local Plan Review

- 1.1.1 Warrington Borough Council (WBC) is currently consulting on its Proposed Submission Local Plan (PSLP) which will guide development in the Borough to 2037.
- 1.1.2 WBC's consultation document of March 2019 sets out how the PSLP was developed, including the work undertaken to develop its Preferred Development Option (PDO) which was subject to consultation in 2017. The PDO identified four main areas of growth: the city centre; the Waterfront; a Garden City Suburb in the south east quadrant of the town; and a south west urban extension. Further development is planned throughout the urban area and within Warrington's outlying settlements. The PSLP generally follows the same approach as the PDO.
- 1.1.3 The Local Plan Key Diagram, identifying the main areas proposed for development is included as Figure 3.1 of the PSLP.

### 1.2 Peel's Land Interests

- 1.2.1 Peel is a major North West based investor and development company with a successful track-record in delivering growth and major projects including the Trafford Centre and Media City UK. Peel owns c.1.2million sqm of property and 15,000 hectares of land and water. Peel has significant interests in Warrington Borough including at the Waterfront, south west urban extension and in the outlying settlements.
- 1.2.2 Peel has specific interests at land off Rushgreen Road in Lymm which is capable of delivering up to 411 new residential dwellings located close to existing facilities and services, Lymm town centre and sustainable transport networks.
- 1.2.3 The main representations prepared by Turley explain why further development in Lymm is needed and how the site can make a very significant contribution to meeting the housing needs of Warrington over the plan period.

### 1.3 Report Structure

- 1.3.1 This transport appraisal considers the key transport and highways related aspects of the sustainable development proposals off Rushgreen Road in Lymm.

1.3.2 The background to the consideration of sites by WBC and the overall policy position, focussing on transport, is set out in Section 2.0. Section 3.0 explains the development proposals including the opportunity that development at Lymm presents to deliver a sustainable community. The key 'tests' of the National Planning Policy Framework (NPPF) paragraphs 108 and 109 are then considered: Section 4.0 shows that the site will be accessible and sustainable; Section 5.0 demonstrates how access will be provided to the site; and Section 6.0 outlines the traffic impacts of the proposals.

## 1.4 Conclusions

1.4.1 A summary of the overall conclusions is presented at Section 7.0. The key conclusions of this appraisal are:

- i Lymm has many existing characteristics which will support and promote sustainable development and sustainable travel patterns, meeting day-to-day needs and which confirm its suitability as a location for development.
- ii The development of the site will therefore fully accord with the NPPF objective related to sustainable travel, with opportunities for such modes taken up.
- iii Access to the site is proposed at two locations and feasibility level designs have been produced and the capacity of these considered. Both will operate satisfactorily. Access to Peel's land is controlled by Peel and is deliverable and achievable. It is therefore also considered that satisfactory access can be provided in accordance with the NPPF.
- iv There are no constraints on the local highway network and infrastructure that would prevent further development in Lymm including the proposed site.
- v The residual cumulative traffic impacts of development on the site will not be severe and therefore, in accordance with NPPF, development should not be prevented on transport grounds.

1.4.2 Overall, it is therefore concluded that the site off Rushgreen Road in Lymm is suitable for allocation in the Council's Local Plan and will form a sustainable development that can provide much needed housing.



## SECTION 2 Background

### 2.1 Transport Policy Context

2.1.1 This section considers both national and local policy related to transport and, in particular, how this frames the consideration of development proposals. Policy aspects of WBC's consideration of the PSLP and allocation of sites are set out in Section 2.2 below and, where relevant, in Sections 4.0, 5.0 and 6.0 related to accessibility, access and traffic impacts.

#### National Planning Policy Framework (NPPF)

2.1.2 Paragraph 11 of the NPPF sets out the presumption in favour of sustainable development noting that at plan-making stage, local planning authorities should positively seek opportunities to meet the development needs of an area.

2.1.3 The specific transport policies of the Framework are contained within its Part 9. Paragraph 108 sets out the key 'tests' for the consideration of the transport aspects of development proposals, stating that:

***"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:***

- ***appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***
- ***safe and suitable access to the site can be achieved for all people; and***
- ***any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."***

2.1.4 Paragraph 109 goes on to confirm:

***"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."***

2.1.5 Issues related to the sustainability of the site, access and traffic impacts are set out in Sections 4.0, 5.0 and 6.0 respectively.

2.1.6 Paragraph 102 sets out the principal transport matters that should be considered during the preparation of Local Plans:-

***“Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:***

- a the potential impacts of development on transport networks can be addressed;***
- b opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;***
- c opportunities to promote walking, cycling and public transport use are identified and pursued;***
- d the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and***
- e patterns of movement, streets, parking and other transport consideration are integral to the design of schemes, and contribute to making high quality places.”***

2.1.7 Paragraph 103 goes on to note:

***“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision making.”***

2.1.8 Paragraph 104 notes that planning policies should, amongst others:

***“a. support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;***

***b. be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport development patterns are aligned;***

***c. identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;***

***d. provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);”***

2.1.9 The proposals at Lymm are adjacent to an existing primary school which is located on the site boundary, are close to Lymm High School and will be near an extensive range of facilities and

services in Lymm town centre and others which are even closer to the site. These include medical facilities and a range of retail and leisure uses. Furthermore, the most frequent bus service in Lymm runs along the site frontage. Thus travel distances and journey lengths will be minimised and active travel modes will be promoted. This is considered in Section 4.0.

2.1.10 Planning Practice Guidance (PPG) sets out further guidance on how the policies in the Framework should be applied and this has been considered in the preparation of this transport appraisal.

### **Warrington Local Plan**

2.1.11 Warrington's Local Plan will provide statutory planning framework for the Borough for the period 2017 to 2037. The Local Plan will replace the 2014 Local Plan Core Strategy.

2.1.12 The PSLP has a series of objectives that include:

***"W4. To provide new infrastructure and services to support Warrington's growth; address congestion; promote safer and more sustainable travel; and encourage active and healthy lifestyles."***

2.1.13 Section 7 of the PSLP sets out policies related to objective W4 and these include:

#### ***"Policy INF1 – Sustainable Travel and Transport***

***To deliver the Council objectives of improving the safety and efficiency of the transport network, tackling congestion and improving air quality, promoting sustainable transport options, reducing the need to travel by private car and encouraging healthy lifestyles, the Council will expect development to:***

- 1 ***General Transport Principles:***
  - a ***Be located in sustainable and accessible locations, or in locations that can be made sustainable and accessible;***
  - b ***Ensure priority is given to walking, cycling and public transport within its design, and reducing the need to travel by private car;***
  - c ***Provide infrastructure for the charging of plug-in and other ultra-low emission vehicles, in line with the Council's Parking Standards SPD (2015);***
  - d ***Support proposals that reduce the level of trips made by single occupancy cars;***
  - e ***Consider demand management measures including the effective allocation of road space in favour of public transport, pedestrians and cyclists;***

- f Mitigate its impact(s) or improve the performance of Warrington's Transport Network, including the Strategic Road Network, by delivering site specific infrastructure which will support the proposed level of development;*
  - g Ensure traffic generated by development is appropriate to the type and nature of the routes available and that there is no adverse impact on the local community;*
  - i Consider the impacts of the wider region's Strategic Road Network and work with adjoining Local Planning Authorities and wider stakeholders to assess the impacts of the transport initiatives outside the Borough, where impacts have been identified and need to be mitigated; and*
  - j Consider how development can be futureproofed, through the provision of measures to support new and emerging technologies, such as Autonomous Vehicles.*
- 2 Improve Walking and Cycling Facilities (Active Travel) including:**
- a Give a high priority to the needs and safety of pedestrians and cyclists in new developments, through the provision of high quality cycling and walking networks that seamlessly integrate with existing networks;*
  - b Improve way finding (including route signage);*
  - c Enhance and develop integrated networks of continuous, attractive and safe networks for walking and cycling including well designed and improved roads, Rights of Way and the Greenway Network (as shown on the adopted Policies Map). This should include appropriate segregation of users and high priority should be given to users at junctions. Where appropriate, the Council will consider the use of planning conditions or planning obligations to secure the required improvements;*
  - d Increase accessibility for all members' of society through improvements and the provision of new infrastructure to make the most of potential environmental, social and health benefits;*
  - e Give priority to routes linking residential areas (especially those in recognised areas of deprivation) with employment areas, transport interchanges and hubs, schools, Warrington Hospital and other local services and facilities; and*
  - f Provide high quality secure and conveniently located bicycle parking facilities at new developments, at transport interchanges and hubs, the town centre and community facilities.*
- 3 Improve Public Transport Including:**
- a Secure improvements to public transport infrastructure and services (to include bus, rail, taxi and private hire) in partnership, where appropriate with operators and delivery partners;*
  - b Be located in areas with easy access to high quality regular public transport services, to ensure public transport is a viable and attractive option by integrating the development with existing public transport infrastructure and services;*

- c ***Providing additional public transport infrastructure and services that are related in scale to the proposed development where existing facilities are not available or are in need of improvement or an appropriate subsidy to help mitigate the impacts of the proposed development;***
- d ***Consider options to enhance Bus Priority at junctions and the provision of dedicated Bus lanes;***
- e ***Support proposals for new public transport networks and services, such as future Mass Transit systems;***
- f ***Support proposals for rail infrastructure and services and the provision of rail facilities appropriate;***

#### **7 Transport Assessments and Travel Plans**

***All major development proposals that are likely to generate significant movements will be accompanied by a Transport Assessment and a Travel Plan in line with Council guidance which will address the following requirements:***

- a ***That the proposed development will not result in an unacceptable impact on safety;***
- b ***That trips generated by the development can adequately be served by Warrington's Transport Network, including the Strategic Road Network;***
- c ***Identify where there are any significant effects on Warrington's Transport Network and/or the environment and ensure that appropriate mitigation measures including the required infrastructure are identified and in place before the development is brought into use;***
- d ***Show how the Transport Assessment and associated Travel Plan have demonstrated how the proposed development will link into and enhance walking, cycling or public transport infrastructure;***
- e ***Propose how measures to facilitate and encourage the use of sustainable travel alternatives (such as walking, cycling or public transport use), have been incorporated into development; and***
- f ***Major developments will be required to monitor the effectiveness of the travel plan and the traffic generated by that development and share this data with the Local Authority, on an agreed annual basis."***

2.1.14 The various aspects of this policy are considered throughout this appraisal and are referenced, where appropriate, in Sections 4.0 – 6.0.

#### **Warrington Local Transport Plan**

2.1.15 This document sets out the Local Transport Plan (LTP) strategy for the period 2011 – 2030. The objectives of the plan include:-

*“To build and manage a transport network that:*

- *Is integrated and customer focused and reduces the need to travel by car.*
- *Enables the regeneration of the Borough and supports economic growth.*
- *Maintains the highway, minimises congestion for all modes of travel and enables Warrington’s ‘smart growth’.*
- *Improves everyone’s access to health, employment, education, culture, leisure and the natural environment.*
- *Improves everyone’s access to the town centre by all modes of travel.*
- *Enhances accessibility for those in disadvantaged communities or groups.*
- *Improves neighbourhoods and residential areas.*
- *Improves safety and security for all modes of travel.*
- *Reduces the impact of traffic on air quality in Warrington and helps to reduce carbon emissions and tackle climate change.*
- *Makes Warrington safer, sustainable and healthier.*
- *Integrates with transport networks outside Warrington to enhance the sustainability of cross boundary travel.”*

2.1.16 The plan includes seven themes related to different aspects of transport and these are considered in this report: Active Travel, Public Transport and Smarter Choices (Section 4.0 – Sustainability and Accessibility); Safety and Security (Section 5.0 – Access); and Managing Motorised Travel (Section 6.0 – Traffic Impacts).

2.1.17 The Council is consulting on its LTP4 alongside the PSLP. This sets out Warrington’s transport challenges and the Council’s vision and objectives:-

*“Vision*

*Warrington will be a thriving, attractive and well-connected place with popular, high quality walking, cycling, and public transport networks”*

And

*“Objectives-through LTP4 we will:*

- *Provide people with a choice about how they travel for each journey*
- *Encourage a culture change that reduces the need for people to travel by car*
- *Improve access to the town centre for all sustainable modes*

- ***Develop a resilient and efficient transport network that supports the town's growth***
- ***Reduce traffic congestion***
- ***Reduce emissions from transport***
- ***Maintain and improve all transport infrastructure***
- ***Encourage healthier lifestyles by increasing day-to-day activity***
- ***Improve safety for all highway users***
- ***Make Warrington a more disabled friendly place."***

## 2.2 Growth in Outlying Settlements

2.2.1 Peel's proposals at the site off Rushgreen Road in Lymm comprise the development of up to 411 residential dwellings. The PSLP proposes limited growth in the outlying settlements with 300 new homes identified at Lymm/Oughtrington through green belt release on sites at Massey Brook Lane (60 dwellings – Policy 0S5), Pool Lane (40 dwellings – Policy 0S6) and Rushgreen Road / Tanyard Farm (200 dwellings – Policy 0S7. The latter site is part of the larger site that Peel is promoting.

2.2.2 The process adopted by the Council to derive the PSLP does not appear to take account of any detailed numerical analysis of the transport system that would result in a cap on growth in Lymm or the other outlying settlements.

2.2.3 The PDO, which included 500 dwellings at Lymm, was derived using a four-stage process. Stage 1 identified development needs and land requirements and Stage 2 set the objectives for the Local Plan. Stage 3 assessed high level spatial options with option 3 being extension in one or more settlements with the remainder of the growth adjacent to the main urban area. The Council's 'Area Profiles and Options Assessment' Technical Note (July 2017) states:-

***"For the outlying settlements, the Council applied the following assumptions in defining the growth scenarios:***

***(i) 'Incremental growth' – based on a level of development that could be accommodated by existing infrastructure, subject to minor expansion of that infrastructure, up to 10% of settlement size."***

2.2.4 The process adopted stated that the evidence base for stage 3 included a 'Transport Review'. Further detail is given at 4.46 and 4.47 of the PDO document, noting:-

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***“In order to help inform the options appraisal process, the Council prepared Area Profiles for... each of the outlying settlements” (4.46)***

and

***“these profiles provide a detailed assessment of the capacity of... the transport network.” (4.47)***

2.2.5 Examination of the area profile for Lymm includes consideration of the assessment criteria for objective W4, noting:

***“Local Highways Network. No current significant issues during peak hours.”***

2.2.6 Other criteria related to the strategic highways network, public transport and active travel do not raise detailed constraints. The Council note that Lymm has no railway station and that Lymm has poor walking and cycling connections to Warrington. Walking connections are simply a function of the distance between Lymm and Warrington (c.10km) and the same is the case regarding cycle connections albeit a dedicated largely off road route is available (and considered further in Section 4.0 of this report).

2.2.7 It is understood that the transport review which was input to the PDO did not include any quantitative analysis. No analysis of the capacity of the existing transport system, the impacts of traffic generated by development and the potential to introduce improvements to facilitate growth had been undertaken. Indeed, the PDO noted that the development numbers in each settlement will depend on detailed assessment including transport impacts.

2.2.8 The Council has now undertaken further transport modelling, reported in the ‘PDO: Transport Model Testing of Alternative Scenarios’ report. This notes that the model was not available during the consultation stage of the PDO development.

2.2.9 The report notes that the purpose of the testing is to demonstrate that the PDO does not result in a breakdown of the Warrington transport network and to demonstrate that the transport impacts of alternative development scenarios are not materially better than the PDO.

2.2.10 Six alternative scenarios to the PDO are considered in the report with scenario 3 the only one that tests significant additional growth in the outlying settlements, with dwelling numbers increased from 1,190 (as the PDO) to 4,900. Details are not provided of the specific locations of the additional growth. The results of model testing of the scenarios are presented initially at the aggregate level across the Borough as a whole and this adopts key performance indicators related to travel distances, times and lengths, average speeds and public transport modal share.



#### 2.2.11 Considering each of these the report concludes:

- Total vehicle hours: scenario 3 is the best performing scenario although there is negligible variation between scenarios.
- Total vehicle kilometres: again, scenario 3 is the best performing scenario but there is negligible variation between scenarios.
- Average trip length: the PDO is the best performing scenario but there is limited variation between the scenarios. The average trip length for scenario 3 is only 0.53% greater than the PDO (a distance of only 50m).
- Public Transport trips and mode share: there is negligible variation between the scenarios with scenario 3 having a slightly higher public transport modal share than the PDO (by 0.69%) and slightly lower number of public transport trips than the PDO (by 0.65%).
- Average speed: the report notes that average speed is an indicator of delay / congestion and that there is little variation between scenarios at the network wide level (scenario 3 has a slightly higher average speed than the PDO, by 0.7%).
- Journey times: there is limited variation between scenarios in journey times through the urban area.

2.2.12 Overall, the analysis shows that greater levels of development in the outlying settlements do not result in adverse travel characteristics. The report concludes that there is no evidence, from the model, that the transport impacts of other scenarios are materially better than the PDO. By definition, they are not materially worse.

2.2.13 The Council has also produced a report 'Transport Model Testing of the PSVLP and Highway Schemes in the IDP'. This does not consider specific locational issues and does not identify any detail of constraints at Lymm.

2.2.14 There is therefore no justification, based on sound evidence of transport capacity, to limit development in Lymm (or the other outlying settlements) at the level suggested by the Council. This report, which complements the main submissions prepared by Turley, identifies the potential of the site off Rushgreen Road in Lymm to contribute to growth in the borough in a sustainable manner.

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## SECTION 3 Development Proposals

### 3.1 Site Location

3.1.1 The site is located within the settlement of Lymm. It is c.1km from the centre of Lymm at Eagle Brow by Lower Dam. The location of the site is shown in Appendix A.

3.1.2 Given its position, the site is very well related to many and a wide range of facilities and services within the settlement of Lymm. Its southern boundary is formed by the Bridgewater Canal with its western and northern boundaries formed by existing residential dwellings and its eastern boundary by Oughtrington Primary School and existing dwellings at Bridge Close off Oughtrington Crescent.

3.1.3 The site as a whole is 24 hectares in size and currently comprises underused agricultural land including a number of paddocks. There is an existing storage use to the rear of Sainsburys. The site is designated as Green Belt within the Warrington Unitary Development Plan.

### 3.2 Masterplan

3.2.1 A concept masterplan of the site has been developed by Randall Thorp and is included in the main representations prepared by Turley. The masterplan shows residential development of up to 411 dwellings. Four separate areas of development are considered, each increasing the scale of development on the site, and aggregating to the total 411 units:-

- i Area 1: Land wholly controlled by Peel, accessed via Bucklow Gardens – 69 dwellings.
- ii Area 2: Peel land and additional land to its south and east controlled by the Council, also accessed via Bucklow Gardens – 229 dwellings.
- iii Area 3: Peel land, WBC land and land to the west, accessed via Bucklow Gardens – 285 dwellings.
- iv The 'full' site including land to the west of the Peel land in a variety of ownerships accessed from an existing access to Tanyard Farm and Bucklow Gardens – 411 dwellings.

3.2.2 Access to the site is considered in detail in Section 5.0 below: as noted above, the main access to the eastern part of the site will be via Bucklow Gardens with a potential secondary/emergency access via Howard Avenue. The western part of the site would be accessed via the existing

access to Tanyard Farm off Rushgreen Road. When the full site is developed, streets within the site will connect the two access points.

- 3.2.3** The site's southern boundary is the Bridgewater Canal. The masterplan shows a significant landscaping belt running along the canal between the tow-path and built development on the site. Several additional landscape corridors are shown on the masterplan and a LEAP near the centre of the site.
- 3.2.4** Oughtrington Primary School is located to the east of the site and an extension to it is proposed as shown on the masterplan.
- 3.2.5** Public rights of way (public footpaths) run partially along the northern boundary of the site and wholly along the southern boundary; the PRoW are indicated on the concept masterplan. FP43 forms part of the Cheshire Ring Canal walk, running along the canal tow-path. FP4 runs from Dyers Lane to Oughtrington Crescent. Green links and corridors will be extended through the proposed residential site and these will connect the green space infrastructure. The green links could also accommodate pedestrian and cycle routes. Sustainable urban drainage features will create further amenity for the open space as well as creating a new habitat to promote diversity of wildlife species.
- 3.2.6** The design and layout of transport corridors within the site and connections off it will focus on creating places. Street and place design will start with pedestrians and cyclists having priority with managed car access. Street design will follow the principles of Manual for Streets, 'Living Streets' and modern design guidance such as the Handbook for Cycle Friendly Design; this will result in streets that are destinations worth visiting. Shared surfaces will be encouraged. Speed limits will be low with an appropriate street hierarchy developed, making it the norm to travel slowly within the site. The site will be designed for the mobility impaired with account taken of 'Inclusive Mobility' requirements.
- 3.2.7** Thus the design philosophy of the masterplan will encourage sustainable travel with local trip making, contributing to the site forming sustainable development in the context of the NPPF.

## SECTION 4 Sustainability And Accessibility

### 4.1 The Case for Development at Lymm

4.1.1 Lymm is a self-contained town with many local facilities and services and follows the 'Walkable Neighbourhood' principles – there are a range of facilities within walking distance of residential areas which residents can access comfortably on foot.

4.1.2 The TEMPRO database has been used to identify the proportions of trips made by residents in Lymm for different journey purposes by all modes of travel:

**Table 4.1: TEMPRO Journey Purposes – Lymm**

| Journey Purpose              | Proportion of All Trips <sup>1</sup> |
|------------------------------|--------------------------------------|
| Education                    | 20.5%                                |
| Shopping                     | 17.7%                                |
| Personal Business            | 9.0%                                 |
| Recreation / Social          | 9.5%                                 |
| Visiting Friends & Relatives | 10.7%                                |
| Holiday / Day Trips          | 7.1%                                 |
| Work                         | 22.3%                                |
| Employer's Business          | 3.2%                                 |

<sup>1</sup> Average weekday all modes

4.1.3 Thus trips are made for a variety of journey purposes, many associated with meeting day-to-day needs such as travel to school (c.20%), shopping (c.18%), personal business (c.9%), recreation and social (c.10%) and visiting friends and relatives (c.11%). The many facilities and services in Lymm also provide a source of employment.

4.1.4 It is important to consider the trips likely to be made for each journey purpose with the availability of local facilities and services; this demonstrates that Lymm is a sustainable settlement and a suitable location for new development where trips can be made locally by sustainable travel modes.

#### Education

4.1.5 Around 20% of daily trips by residents are made for education purposes. There are four primary schools and a secondary school in Lymm, providing for the day-to-day education needs of residents. TEMPRO data indicates that only 17% of education trips are by a car driver, with these

likely to be parents dropping children off at school (the average car occupancy is 2.8 people per car). Thus the majority of trips are made by sustainable modes – walking (43%), cycling (1%), car passenger (32%) and public transport (6%).

**4.1.6** The size of Lymm (approximately 3km on the east-west axis and 1.2km on the north-south axis) and the location of the schools means that many trips can be made on foot. The IHT’s document ‘Providing for Journeys on Foot’ suggests a walking distance to school of up to 2km. The distance between residential areas and schools varies by area but the compact nature of the town facilitates easy trip making and data from the National Travel Survey (NTS) confirms there is a very good prospect of the vast majority of school trips being made locally or adjacent to the site. Information from the NTS demonstrates that trips to local schools are predominantly made on foot:-

**Table 4.2: NTS Modal Split of Trips to School**

| Main Mode | Aged 5 – 10 Years    |             | Aged 11 – 16 Years   |             |
|-----------|----------------------|-------------|----------------------|-------------|
|           | Under 1 mile (1.6km) | All lengths | Under 1 mile (1.6km) | All lengths |
| Walk      | 78%                  | 44%         | 87%                  | 37%         |
| Bicycle   | 2%                   | 1%          | 3%                   | 2%          |
| Car/Van   | 20%                  | 48%         | 8%                   | 26%         |
| Bus       | -                    | 6%          | 2%                   | 29%         |
| Other     | -                    | 1%          | -                    | 5%          |
| Total     | 100%                 | 100%        | 100%                 | 100%        |

### Shopping and Personal Business

**4.1.7** Over a quarter, c.27%, of trips are made for shopping or personal business reasons. Lymm includes a range of facilities that will again satisfy day-to-day needs and facilitate local trip making, particularly on-foot. These include:-

- Supermarkets (Sainsburys and Co-op) and a wide range of other shops including national and independent brands;
- A library and Post Office;
- Two GP surgeries, dentists and pharmacies;
- A range of cafes, restaurants and pubs.

- 4.1.8 The TEMPRO data shows that less than half (46%) of the journeys for shopping and personal business are made as a car driver. Again, the compact nature of the town means that the central location of most of the facilities and services provides the opportunity for residents to walk or cycle.

#### **Recreation, Visiting Friends and Holidays**

- 4.1.9 These journey purposes account for a significant number of trips – around 27% of the daily total. There are opportunities for such trips to be made locally (e.g. Lymm Dam) whilst recognising that the nature of such trips means that some will be made over longer distances and by car. In this respect Lymm provides an accessible location close to M6 and M56 motorways but with public transport connections to Warrington to the west and Greater Manchester to the east. Around 44% of these trips are made by car drivers (from TEMPRO) with the majority therefore made by more sustainable modes.
- 4.1.10 Lymm also benefits from transport networks that fulfil both a place and movement function such as the network of quiet streets, Trans Pennine Trail and Bridgewater Canal walk that provide a range of quality connections and recreational routes.

#### **Working and Employers Business**

- 4.1.11 Around a quarter of all trips are made for these purposes. There are jobs available in Lymm, at the local facilities and services and around 30% of the work trips to Lymm are made by residents of Lymm. Furthermore, around 40% of these are made on foot or by bicycle.
- 4.1.12 The other trips by residents are to a range of destinations, including to the rest of Warrington (c.17%), Trafford and Manchester (both c.12%), the remainder of Greater Manchester (c.10%) and Cheshire (c.8%). Bus connections are available to Warrington and Trafford, with Metrolink and rail services then available at the latter, and Lymm's position close to the motorway facilitates car use where this is necessary given the location of employment. Around 16% of Lymm's resident workers do so at home.

#### **Overall**

- 4.1.13 Thus, the combination of the size of the settlement and the range of facilities and services makes for the use of integrated and accessible transport. Development in Lymm can be focussed on making walking, cycling and bus the most attractive forms of local transport, with residents able to meet their day-to-day needs locally.

4.1.14 Modal split data from TEMPRO identifies the potential with the following mode shares for all journey purposes combined:-

**Table 4.3: TEMPRO Modal Shares – Lymm**

| Mode          | Proportion of Trips <sup>1</sup> |
|---------------|----------------------------------|
| Walk          | 21.0%                            |
| Cycle         | 1.7%                             |
| Car Driver    | 46.4%                            |
| Car Passenger | 25.3%                            |
| Bus / Train   | 5.6%                             |

<sup>1</sup>Average weekday all journey purposes

4.1.15 Locating development in Lymm, such as at the site, close to a range of services – schools, shops etc – and close to good transport connections – bus and walking routes – will facilitate increased use of sustainable travel modes.

4.1.16 Considering the national and local policies set out earlier in this report:

- Development in Lymm will facilitate the use of sustainable modes of transport, given the short-distances involved and availability of buses – meeting NPPF Para 108 and PSLP Policy INF1.
- The need to travel can be minimised and use of suitable modes can be maximised – meeting NPPF Para 103.
- Day-to-day activities and key facilities such as primary schools and local shops will be located within walking distance of properties – meeting NPPF Para 103 and PSLP Policy INF1.

4.1.17 Thus Lymm has many existing characteristics which will support and promote sustainable development and sustainable travel patterns, meeting day-to-day needs and which confirm its suitability as a location for development.

## 4.2 Overview of the Site's Accessibility

4.2.1 The previous section of this report has set out the case for development at Lymm in terms of encouraging and promoting the use of sustainable travel modes. This focuses on the availability of a comprehensive range of facilities and services within the town, capable of meeting the

majority of residents' day-to-day needs and, as a result, with walking, cycling and public transport designed to be the most attractive forms of local transport.

**4.2.2** Considering this, the potential development site off Rushgreen Road is located within the built area of Lymm, close to the town centre and nearby schools as well as a comprehensive range of health, retail and leisure uses. Thus the location of the site will promote sustainable travel patterns and the use of sustainable travel modes, reducing car use, particularly that for single occupancy travel.

**4.2.3** Within this context, the travel and transport strategy for the site is to:

- i** Take advantage of the site's existing location within Lymm to minimise the number of vehicular trips generated by the proposal
- ii** Maximise opportunities for walking and cycling trips, particularly over shorter distances;
- iii** Encourage external trips to/from the site to be made on foot, by bike, by public transport or through shared transport (e.g. a Car Club);
- iv** Encourage commuting trips to Warrington and other destinations to be made by bus; and
- v** Where absolutely necessary, mitigate the impacts of residual car borne trips by the introduction of highways mitigation improvements.

**4.2.4** Measures for encouraging walking/cycling, and public transport including those in the Travel Plan are included in Sections 4.3 – 4.5 with the locational characteristics of the site and existing sustainable travel networks also set out. The accessibility of the site is then considered in Section 4.6.

**4.2.5** The site will provide a range of benefits as outlined in the submissions made by Turley. Specific transport benefits of the proposals will include:-

- Everyday facilities located in or close to the development in walkable neighbourhoods, thus putting place first, enhancing inclusion, promoting sustainable lifestyle choices and behavioural change.
- Access to existing bus services (the most frequent in Lymm) that will connect the site with key destinations.



- Specific and targeted travel plan measures again designed to promote sustainable travel modes.
- Provision of on-plot and on-street electric vehicle charging points.
- Existing access provision off several places on the local road network which can accommodate the traffic generated by the proposals (considered in Sections 5.0 and 6.0).

### 4.3 Local Connectivity of the Site

4.3.1 As noted above, the site lies within the existing built area of Lymm village thus affording the opportunity to make direct and high quality connections. The Council's Settlement Profile notes that ***"Active Travel is clearly beneficial in terms of reducing the impact on the highway network as well as the obvious environmental, health and amenity benefits"***.

4.3.2 All the adjacent streets have footways and the site can connect to these, with Bucklow Gardens presenting very pleasant walking and cycling conditions. A continuous footway route is available from the site to Lymm town centre via Rushgreen Road and New Road, as well as an alternative via the Ring Canal Walk.

4.3.3 The Cheshire Ring Canal Walk runs along the Bridgewater canal tow-path and provides a high quality traffic-free route to Lymm town centre and also, at the eastern end of the site, to Oughtrington Crescent with onward access to Lymm High School only c.500m away. FP4 runs partially along the northern boundary of the site (immediately south of Bucklow Gardens) with this surfaced route providing a direct connection to Oughtrington Primary School and then on to Oughtrington Crescent (for alternative travel to the High School).

4.3.4 The Trans Pennine Trail runs in an east-west direction to the north of the site, only c.200m north of Rushgreen Road and accessed via Reddish Crescent which is a wide and lightly trafficked residential street. The Trail runs between Southport and Hornsea and, locally, connects the site with Warrington to the west and the outskirts of Altrincham to the east. It is shown as a strategic cycle route on the Council's cycle map which is included in Appendix B.

4.3.5 The above existing high quality connections will be complemented by measures included in the Travel Plan for the site (see Section 4.5 below).

4.3.6 The Council's Settlement Profile notes that Lymm has poor cycling and walking connections to Warrington, which constrains further expansion of these modes and that any transport strategies

developed to support development must allow for this transport mode and provide the appropriate facilities and schemes. This is merely a function of distance. The site, in common with all of Lymm, is outside of walking distance to Warrington but this is not a particular disadvantage as most day-to-day facilities to which many journeys will be made are available locally either close to the site or within Lymm town centre, as evidence by 4.1 above. These can all be readily accessed on foot. The Trans Pennine Trail cycle route, located near the site, provides a cycle connection close to Warrington town centre.

4.3.7 The accessibility of the site is considered at 4.6 below but the location of the site, proximity to many every-day facilities and the short-distances involved affords a real opportunity to focus movement on active travel and thereby reduce car use.

#### 4.4 Maximising Use of Public Transport

4.4.1 There are frequent existing bus routes and services in the vicinity of the site as summarised in Appendix C and in the table below, including the Cat 5 services:

**Table 4.4 Existing Bus Services at Rushgreen Road**

| Service No. | Route / Destinations Served                     | Frequency |            |          |            |         |     |
|-------------|---|-----------|------------|----------|------------|---------|-----|
|             |   | Mon – Fri |            | Saturday |            | Sunday  |     |
|             |   | Day       | Eve        | Day      | Eve        | Day     | Eve |
| Cat 5/5A    | Altrincham – Lymm – Stockton Heath – Warrington | 30 mins   | 2 services | 30 mins  | 2 services | 60 mins | -   |
| 191         | Oughtrington – Lymm                             | 3 per day | -          | -        | -          | -       | -   |

4.4.2 Thus these are half-hourly bus services between the site and Lymm and Warrington as well as serving Altrincham and Stockton Heath. These provide a regular connection to Warrington town centre where there are onward services available at Warrington Interchange and Warrington Central railway station is nearby. The route serves Altrincham Interchange where connections are available to Manchester Metrolink services, providing linkages to the regional centre and other destinations within Greater Manchester. The 191 provides additional services to Lymm. There are bus stops close to the site on Rushgreen Road near its junction with Bucklow Gardens and at Reddish Crescent, close to Sainsburys.

4.4.3 The closest railway stations to the site are at Warrington Bank Quay, Warrington Central and Altrincham; with the latter two served by the frequent Cat 5 bus service that runs along the site frontage.

4.4.4 Further measures to promote bus (and rail) use can be delivered as part of the Travel Plan, see below.

## 4.5 Promoting Sustainable Travel Choices

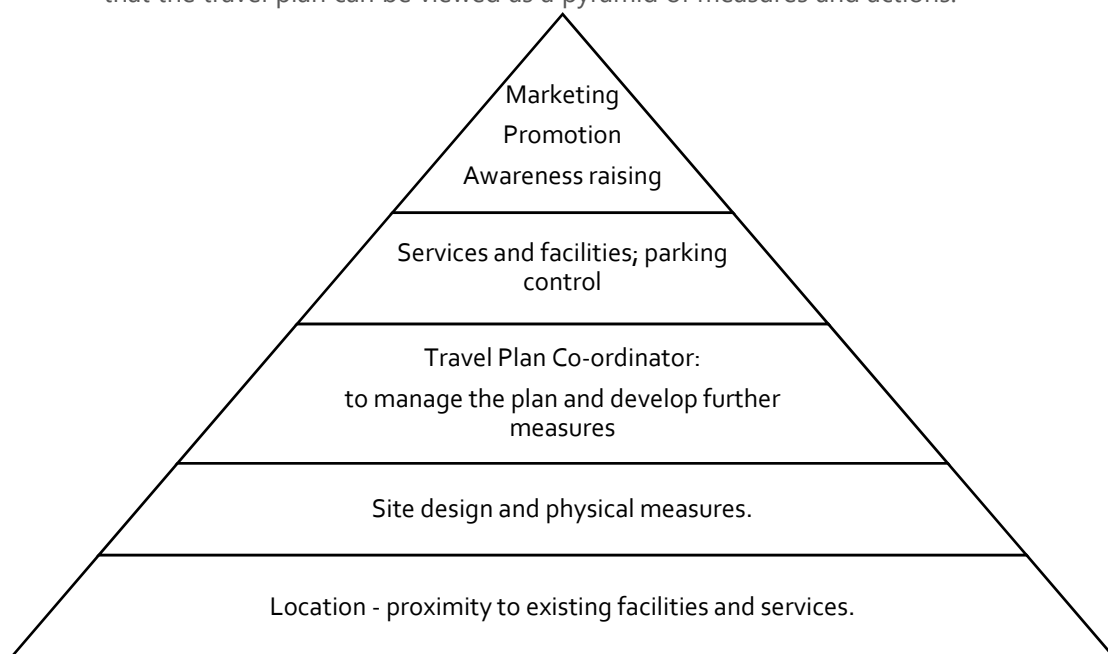
### Overview

4.5.1 The development of the site will include the production of a comprehensive travel plan to support the proposals. This will primarily identify the delivery of 'soft' measures to encourage the use of sustainable modes.

### Travel Plan Philosophy

#### Travel Plan Pyramid

4.5.2 The DfT document 'Making residential travel plans work: guidelines for new development' notes that the travel plan can be viewed as a pyramid of measures and actions:



4.5.3 At the base of the pyramid is the location of the site. The proposals are adjacent to Oughtrington Primary School and Lymm High School is nearby. There is a range of other facilities and services available close to the site and within Lymm including health, retail and leisure uses. The location of the site itself will therefore encourage active travel.

- 4.5.4 The DfT note that the next stage should include the fundamental characteristics that need to be incorporated into the design of the site to support the use of sustainable modes. The design approach will focus on creating a sense of place, integrating the site with the existing community and promoting sustainable travel making, particularly active travel within the site.
- 4.5.5 The next tier is the Travel Plan Co-ordinator who will develop and manage the travel plan process, be responsible for the delivery of the plan and liaison with the Council, organise monitoring and reviews of the plan and ensure that travel plan targets are achieved.
- 4.5.6 The next level is the services and facilities that will be delivered at the site such as the range of measures outlined below.
- 4.5.7 The final top tier is the promotion and marketing of the travel plan and services, raising awareness of the plan through various information initiatives and delivered by the travel plan co-ordinator.

#### **Travel Plan Objectives and Targets**

- 4.5.8 The detailed objectives and targets for the travel plan will be discussed and agreed with the Council and other key stakeholders, at the appropriate time. Broad objectives have been considered at this stage:
- i Bring together the design of the site and travel plan measures such that the need to travel is reduced.
  - ii Provide measures and initiatives that are inclusive, promote cohesion and provide alternatives for all residents on the site.
  - iii Promote 'hard' and 'soft' measures such that sustainable modes are the first mode(s) of choice, rather than the car.
  - iv Minimise the traffic generated by the development proposals.
  - v Assist in developing a sense of place within the site.
  - vi Promote healthy lifestyle choices through the use of non-car modes with emphasis on active travel.
- 4.5.9 Specific SMART targets will be developed for the Travel Plan focusing on two key aspects.:
- First, meeting modal share targets and a maximum proportion of car driver trips; and

- Secondly, ensuring that the actual traffic flows generated by the site are consistent with those adopted in future transport assessments, such that there is no severe impact from additional car trips.

4.5.10 Formal monitoring arrangements will be agreed to assess the achievement of objectives and targets on an on-going basis.

#### **Travel Plan Measures**

4.5.11 Detailed assessment and evaluation will be undertaken to establish the most appropriate measures for the site should the site be allocated. There will be general measures to be applied across the site and all modes, specific measures to promote walking and cycling and public transport, measures to reduce residual vehicular trips and information/awareness raising that can be rolled out across the whole site. The measures are summarised below.

#### **Generic Measures**

4.5.12 These will include:

- Travel Plan Co-ordinator: the TPC will be responsible for the overall delivery of the plan including liaison with WBC. They will monitor the plan against objectives and targets and identify measures to promote sustainable travel.
- Personalised travel planning: the TPC will liaise with individual householders to plan specific journeys and show how these can be undertaken by sustainable modes.
- Welcome Packs: these will be provided to every new household and will set out the benefits of travel plan measures, details of sustainable travel modes (e.g. bus maps), the initiatives available on the site and contact details for any further information.
- Broadband: all homes will be equipped with broadband, enabling working from home etc.

#### **Measures to Promote Walking and Cycling**

4.5.13 Measures to promote walking and cycling will include:-

- Bicycle user group: the TPC will investigate the potential for a BUG to be established at the site to encourage residents to meet and exchange tips on cycle routes and maintenance. The TPC will forge links with cycle shops to arrange discounts on purchases and repairs, if possible.

- Travel voucher: a voucher will be offered to each new household which can be used to purchase equipment or part purchase a bicycle.
- Cycle storage and stands: secure weather protected cycle storage and/or stands will be provided throughout the site.
- Safe routes to school and walking bus: the main pedestrian routes to Oughtrington Primary School, adjacent to the site, will be designed and audited using 'Safe Routes to School' principles with funding for the advertising of walking bus schemes and the provision of fluorescent vests for children and walking bus 'drivers'.
- Cycling proficiency schemes at the primary school: funded for a period to be agreed with the Council.
- Cycle training: this will be offered to residents who are less confident regarding the use of a bike. The BUG can co-ordinate this.
- Bike buddy: volunteers will be sought to 'buddy-up' with less confident cyclists and the TPC will promote this and seek recruits.

#### **Measures to Promote Public Transport**

##### 4.5.14 Measures to promote the use of buses will include:

- Travel vouchers/travel cards/bus tickets: a monthly bus pass will be supplied to each household on first occupation. The TPC will seek to obtain discounts from bus operators for these tickets or tickets for extended periods.
- Bus buddying: this is used in other towns where trained volunteers provide one-to-one support to older people, learning disabled people, people with physical and sensory impairments etc. to aid their understanding of using public transport and to help them gain confidence.

#### **Reducing Car Use**

##### 4.5.15 Residents will make some journeys by car but car sharing will be promoted from first occupation of the dwellings by the TPC. A bespoke car sharing scheme could be developed or existing car sharing initiatives could be used.

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### **Information and Awareness**

4.5.16 Raising awareness of the measures and initiatives that will be available at the site is important and therefore information will be provided as follows:-

- Site specific travel guide: a foldable map, setting out the details of bus services and walk and cycle routes, will be developed. It will be included in sales literature and updated regularly for distribution by the TPC. A digital version will be considered.
- Website: a Travel Plan website will be developed for the site giving residents access to up-to-date travel information.
- Notice boards: these will be located within sales offices and at strategic points around the development, displaying up-to-date information on sustainable modes and setting out the benefits of these and other travel plan measures.
- Campaigns: the TPC will hold events and campaigns related to national and local initiatives such as 'Bike to Work' day and local organised cycle rides.

4.5.17 The TPC and travel plan measures will be funded by the developer and/or their successors in title.

4.5.18 The Travel Plan measures will thus encourage both active travel and the use of public transport, consistent with the NPPF and the transport related objectives and policies of the PSLP.

## **4.6 Accessibility of the Site**

### **Overview**

4.6.1 Strategic objective W4 of the PSLP includes the promotion of sustainable travel with the Sustainability Appraisal objectives including those related to reducing the need to travel and enhancing accessibility for essential services and facilities.

4.6.2 There are many facilities in Lymm providing for day-to-day needs. Local facilities and services within the vicinity of the site are shown on Appendix D and the distance from the closest of the site accesses or pedestrian/cycle connections to the key destinations in the local area are set out in the table below. These are based on development across the whole of the site (i.e. Area 4 as set out above).

**Table 4.5 Distance to Key Facilities and Services**

| Use                | Name                                  | Distance |
|--------------------|---------------------------------------|----------|
| Primary School     | Oughtrington Community Primary School | 0.1km    |
|                    | Ravenbank Community Primary School    | 1.3km    |
|                    | Cherry Tree Primary School            | 2.0km    |
|                    | Statham Community Primary School      | 2.2km    |
| Secondary School   | Lymm High School                      | 0.6km    |
| Health             | Brookfield Surgery                    | 1.0km    |
|                    | Lakeside Surgery                      | 1.1km    |
|                    | Dental Care with Jill Cooper          | 0.3km    |
|                    | Eagle Brow Dental Care                | 0.9km    |
|                    | Boots Pharmacy                        | 0.7km    |
|                    | Lloyds Pharmacy                       | 0.7km    |
| Retail and Leisure | Sainsbury's Supermarket               | 0.1km    |
|                    | Lymm Village Centre                   | 0.7km    |
|                    | Co-Operative Food                     | 0.9km    |
|                    | Sainsbury's Local                     | 0.7km    |
|                    | Lymm Library                          | 0.9km    |
|                    | Lymm Post Office                      | 0.7km    |

**4.6.3** Manual for Streets (MfS) notes that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (c.800m) walking distance of residential areas which residents may access comfortably on foot. It does however go on to note that this is not an 'upper limit' and quotes (the now superseded) PPS13 which stated walking has the greatest potential to replace short car trips, particularly those under 2km.

**4.6.4** The IHT document 'Providing for Journeys on Foot' includes suggested acceptable walking distances. The preferred maximum distances for commuting / school / sight-seeing are 2km with 1,200m suggested elsewhere. It is concluded 2km represents an appropriate distance for the consideration of walk distances between households and facilities and services.

**4.6.5** In terms of cycle distances, DfT Local Transport note 2/08 'Cycle Infrastructure Design' notes that many utility cycle journeys under three miles (c.5km) but that for commuter journeys a trip distance over 5 miles (c.8km) is not uncommon.



- 4.6.6 Thus consideration of Table 4.5 confirms that the many day-to-day facilities close to the site and within Lymm are within walking and cycling distance, ensuring that the site will form a walkable neighbourhood within the existing built area of Lymm.

#### **Accessibility to Education**

- 4.6.7 Oughtrington primary school is located next to the site, within a short walk or cycle ride from the residential dwellings. There are three other primary schools within Lymm.
- 4.6.8 The site lies close to Lymm High School which is located on Oughtrington Lane which leads from Oughtrington Crescent. There are connections available to the latter from the canal tow-path which runs along the southern boundary of the site and via public footpath number 4. The internal site layout will include connections to both.
- 4.6.9 Both primary and secondary schools are therefore within a very short walking distance of the site. Considering the data from the NTS in Table 4.2, all of the residential dwellings will easily be within one mile (1.6km) of the existing primary school and Lymm High School, many at distances much less than this. School aged children will therefore be able to walk to their local schools with very few car trips likely to be made. It is therefore considered that accessibility to education facilities is excellent.

#### **Accessibility to Health Facilities**

- 4.6.10 There are two medical centres within Lymm, the Brookfield surgery at Whitbarrow Road and the Lakeside surgery at Lakeside Road, both c.1km from the site and within an easy walk. There is a dental surgery on Rushgreen Road close to Bucklow Gardens, very close to the site, and another in the centre of Lymm. There are pharmacies also in the centre of Lymm.
- 4.6.11 The accessibility to local health facilities is therefore excellent with these clearly catering for 'day-to-day' needs of residents on the site.

#### **Accessibility to Retail and Leisure Facilities**

- 4.6.12 There is a Sainsbury's food store adjacent to the site and potential access off Rushgreen Road, opposite Reddish Crescent and therefore within a very short walk from the dwellings on the site. The centre of Lymm at Eagle Brow includes several retail and leisure facilities including Sainsbury's supermarket, library, post office and several other shops as well as an extensive

range of cafes and public houses. There is a Co-Op convenience store at Chaise Meadow off Birch Brook Road, c.0.9km from the site. All are within an easy walking distance.

**4.6.13** Thus a range of retail and leisure facilities will be available locally, encouraging active travel. The accessibility of the site to these facilities is also concluded to be excellent.

### **Summary**

**4.6.14** The Council's Sustainability Appraisal Accessibility Objective related to Accessibility includes criteria as follows, with commentary given on the site:

- ACC1: How accessible is the site to the nearest primary school on foot – Oughtrington school is located next to the site. Therefore significant positive effects likely.
- ACC2: How accessible is the site to the nearest Secondary School – the site is close to Lymm High School on Oughtrington Lane. Therefore significant positive effects likely.
- ACC3: How well served is the site by a bus service – existing bus services run along the site frontage which operate at a 30-minute frequency but are not considered to be regular by WBC (who adopt a regular bus standard of 20 minutes frequency). The bus stops are close to the site therefore positive effects likely.
- ACC4: How accessible is the site to the nearest train station – the nearest stations are some distance away. Therefore significant negative effects likely using WBC's definition which is simply distance based. There are, however, many facilities and services available locally.
- ACC5: What is the overall distance to a GP service or health centre – two GP practices located within walking distance in the centre of Lymm. Therefore significant positive effects likely.

**4.6.15** In conclusion, a range of facilities and services will be available locally within walking and/or cycling distance. These include: Oughtrington primary school next to the site, the nearby Lymm High School, other primary schools in Lymm, health facilities including doctors, dentist and pharmacy in Lymm and shops, Library, Post Office and leisure facilities in Lymm town centre as well as a convenience store adjacent to the site.

**4.6.16** Buses already serve Lymm and travel along the site's Rushgreen Road frontage. These provide connections to various destinations including Lymm, Warrington and Altrincham; the latter two

provide onward connections to a wide range of destinations by bus, rail or Metrolink. The services are half-hourly and are the most frequent bus services in Lymm.

**4.6.17** The location of the site close to many facilities and services in Lymm and also to bus routes and services provides an opportunity for achieving modal shift, with increased use of active travel modes and public transport.

**4.6.18** It is therefore concluded that the site is sustainable and accessible via a range of travel modes and will therefore be in accordance with the NPPF and WBC's local policies and objectives for the PSLP.

## SECTION 5 Site Access Arrangements

### Overview

5.1.1 The concept masterplan shows that the whole site could be delivered in phases or in discrete parts as follows:

- i The Peel only land at Bucklow Gardens.
- ii The Peel land and surrounding WBC land.
- iii The Peel land, WBC land and further land to the west.
- iv The full site including the Peel/WBC land.

5.1.2 The site has frontage on to both Bucklow Gardens and to Rushgreen Road. It is therefore proposed that access provision will be as follows:

- i Peel only land (up to 69 units) – access via an extension of Bucklow Gardens into the site.
- ii Peel and WBC land (up to 229 units) – accessed via Bucklow Gardens (as above) with an emergency vehicle access (EVA) via Howard Avenue.
- iii Peel land, WBC land and land to west (up to 285 units) – accessed via Bucklow Gardens with an EVA via Howard Avenue.
- iv Full site (up to 411 units) – accessed via Bucklow Gardens and the existing access to Tanyard Farm.

5.1.3 It is concluded that this approach is consistent with design guidance, including Manual for Streets (MfS) and the Council's Residential and Industrial Estates Road Design Guide.

5.1.4 The Council's evaluation of access to the site, reported in their 'Workshop comments' notes:

***"Taking into account the Council's highways officer's comments, the site potential has been reduced down to 300 dwellings due to the limitations on the number of access points."***

5.1.5 This appears to draw from the 'Additional Comments' section of the site evaluation that notes:

***“The Council’s design standards allow for up to 300 dwellings to be served from a single point of access provided that the access is short, the development is served from a loop road arrangement and that a secondary emergency access link is provided. Available points of access are via Rushgreen Road, Thirlmere Drive and Bucklow Gardens. The site is therefore suitable for up to 300 dwellings with a main access from Rushgreen Road and a secondary emergency access from either; Rushgreen Road (immediately adjacent to the main access but which may raise urban design issues); Thirlmere Drive or Bucklow Gardens. Neither Thirlmere Drive or Bucklow Gardens are appropriate for additional development to be served from them (other than emergency access).”***

- 5.1.6 The analysis below demonstrates that a fully operational access (i.e. not solely an emergency access) via Bucklow Gardens can be created and delivered using land wholly controlled by the promoter of the site as well as highway. The assessment identifies that this could either serve a first phase of development accessed solely off Bucklow Gardens and, when combined with the proposed access off Rushgreen Road, serve the entire development of the proposed allocation i.e. at least 411 residential dwellings. A ‘link road’ will be created within the site that connects the two access points and thus two full highway accesses can be used to serve the site.
- 5.1.7 The assessment shows that Bucklow Gardens, and the access road into the site, are of an appropriate width and that satisfactory visibility splays are available, including at the junction with Rushgreen Road.
- 5.1.8 The traffic capacity assessments of the access points presented below take account of existing traffic flows from recent surveys, traffic growth to the end of the plan period and the traffic flows generated by development on the site. All of the assessments demonstrate that the proposed access arrangements, via Bucklow Gardens and a new access from Rushgreen Road (at Tanyard Farm) will operate easily within capacity with no significant queues.
- 5.1.9 It is therefore concluded that the availability of access points does not restrict the number of dwellings that can be delivered on the site and that safe and satisfactory access to the site can be provided in accordance with Paragraph 108 of the NPPF.

## 5.2 Access Proposals

### Peel Only Land

- 5.2.1 The Peel only land, which could deliver up to 69 residential units, is proposed to be served via an extension of Bucklow Gardens into the site as shown on Appendix E (drawing reference ITM13244-GA-002). Bucklow Gardens will continue into the site with the access road at the

existing head of the cul-de-sac reconfigured as shown on the drawing. As the access road enters the site, a loop road will be created.

#### **Peel + WBC Land**

5.2.2 The WBC land wraps around the southern and eastern sides of the Peel land and does not have a direct connection to the adopted highway. It is therefore proposed to serve this phase, which could deliver up to 229 units, via Bucklow Gardens (as above) and with an EVA connection via Howard Avenue.

5.2.3 Howard Avenue is adopted highway for much of its length but becomes unadopted near its end where access is provided to Oughtrington Primary School. It is understood the unadopted section is controlled by WBC. It is therefore proposed that an emergency vehicle connection is provided off the school access road to the site. An indicative design is shown on Appendix F (drawing reference ITM13244-GA-003).

5.2.4 The emergency access is shown as a 3.7m wide road with access controlled such that it can only be used in an emergency. The form of control would subsequently be agreed with WBC and the relevant emergency authorities. The access will connect into the site's internal road network.

#### **Peel + WBC Land + Land to West**

5.2.5 This land could accommodate up to 285 units and will be accessed via Bucklow Gardens and Howard Avenue as above.

#### **Full Site**

5.2.6 If the full site is allocated (411 dwellings) then two accesses will be provided with the internal roads within the site connecting the two. The EVA via Howard Avenue could be retained. As well as the proposed access via Bucklow Gardens (as above), an additional access could be provided direct off Rushgreen Road using the existing access to Tanyard Farm as indicated on the concept masterplan.

5.2.7 A potential access arrangement is shown on Appendix G (drawing reference ITM13244-GA-001). A 5.5m wide carriageway is shown with two 2.0m wide footways with these connecting to the existing footways on Rushgreen Road. Visibility splays commensurate with the 30mph speed limit and based on MfS are shown.

## Summary

5.2.8 All of the access designs will be subject to refinement and road safety audit at the appropriate time. At this stage it is concluded that access is deliverable and therefore achievable and is consistent with paragraph 108 of the Framework.

## 5.3 Capacity of the Accesses

5.3.1 Traffic surveys have been undertaken to assess the capacity of the proposed access arrangements. Details are given in Section 6.0. Peak hour flows have been derived and converted to passenger car units (PCU) for use in traffic capacity assessment. The peak hours are 07:45 – 08:45 and 17:00 – 18:00. The peak hour traffic flows on Rushgreen Road at Bucklow Gardends are as follows:

**Table 5.1 Existing Peak Hour Traffic Flows – Rushgreen Road**

| Peak Hour    | Direction |           |       |
|--------------|-----------|-----------|-------|
|              | Eastbound | Westbound | Total |
| AM Peak Hour | 697       | 361       | 1,058 |
| PM Peak Hour | 426       | 591       | 1,017 |

5.3.2 Traffic has been growthed to the 2037 end of plan year using factors from TEMPRO, adjusted to account for the exclusion of land-use related growth. The growth factors are c.10%. These have been used to assess the capacity of the site access junctions on Rushgreen Road.

5.3.3 Development traffic has then been derived using the approach set out in Section 6.0. Two scenarios have been assessed. First, the Peel + WBC land + land to west, accessed via Bucklow Gardens, as this represents the maximum level of development served by a single access (+ EVA). The traffic surveys identified that there is very little queuing at Bucklow Gardens. The existing Rushgreen Road/Bucklow Gardens junction has been assessed with traffic generated by 285 dwellings on the site and 135 existing dwellings at Bucklow Gardens. Secondly, the full site accessed via Bucklow Gardens and the Tanyard Farm access. In this scenario, each access has been assumed to serve half of the dwellings.

### Peel + WBC + Land to West

5.3.4 The results of the capacity assessment of the Bucklow Gardens/Rushgreen Road priority junction are summarised in the table below.

**Table 5.2 Rushgreen Road/Bucklow Gardens Capacity Assessment Results – Peel + WBC + Land to West (285 dwellings)**

| Movement       | AM Peak Hour |           | PM Peak Hour |           |
|----------------|--------------|-----------|--------------|-----------|
|                | Max RFC      | Max Queue | Max RFC      | Max Queue |
| Site Access    | 0.55         | 1         | 0.30         | 0         |
| Rushgreen Road | 0.17         | 1         | 0.17         | 0         |

5.3.5 The assessment results demonstrate that the site access will operate comfortably within capacity. The results are considered to represent a worst case as: no allowance has been made to take account of the proximity of local facilities (e.g. schools) or affordable housing and resultant reduced trips from the development; growth is applied whereas peak hour growth is unlikely; and the results are for the peak 'time slice' within the peak hour which may not occur in practice.

#### **Full Development**

5.3.6 The results of the capacity assessments of both site accesses with the full development are given in the table below.

**Table 5.3 Site Access Capacity Assessment Results – Full Development (411 dwellings)**

| Junction                         | Movement                  | AM Peak Hour |           | PM Peak Hour |           |
|----------------------------------|---------------------------|--------------|-----------|--------------|-----------|
|                                  |                           | Max RFC      | Max Queue | Max RFC      | Max Queue |
| Rushgreen Road / Bucklow Gardens | Site Access               | 0.47         | 1         | 0.27         | 0         |
|                                  | Rushgreen Road Right Turn | 0.17         | 1         | 0.15         | 0         |
| Rushgreen Road / Tanyard Farm    | Site Access               | 0.25         | 0         | 0.13         | 0         |
|                                  | Rushgreen Road Right Turn | 0.03         | 0         | 0.08         | 0         |

5.3.7 The results show that both access junctions will operate easily within capacity with no significant queues.

#### **Conclusions**

5.3.8 It is therefore concluded that the site accesses will operate within capacity, confirming that satisfactory access to the site off Rushgreen Road at Lymm can be provided in accordance with the NPPF.



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## SECTION 6 Traffic Impacts

### 6.1 The Case for Development in Lymm

6.1.1 It is understood the Council has not published any detailed assessment of the potential traffic impacts resulting from development in the outlying settlements, including the proposed development at Lymm. The modelling work reported at Section 2.2 noted that the aggregate level model results published by the Council do not show adverse travel conditions as a result of further development in the outlying settlements compared to the (then) PDO. Peel is keen to engage with WBC to assess the site and demonstrate how the traffic flows generated by the development can be accommodated on the surrounding highway network.

6.1.2 In terms of traffic conditions in Lymm, WBC's Settlement Profile notes with respect to the local road network:

***"No current significant issues during peak hours."***

6.1.3 This indicates that traffic congestion should not act as a constraint on development in Lymm.

6.1.4 It is understood the Council's above conclusion is not based on detailed analysis of the road network. An initial indication of peak hour traffic conditions has therefore been obtained from Google traffic maps with these given in Appendix H for the AM and PM peak hours. Google uses four gradations to define traffic speeds from fast to slow: green, orange, red and dark red. These are relative to the speed limits with 'fast' indicating little delay/free-flow traffic conditions.

6.1.5 The traffic maps indicate that most roads in and around Lymm have 'fast'/free-flow traffic speeds. In the AM and PM peaks, A56 around Eagle Brow is graded orange. Overall, these confirm there are no significant congestion issues in the peak hours in Lymm and that the limited delays are at junctions, which is expected in the peak hours.

6.1.6 Existing and future baseline traffic conditions in Lymm have then been assessed in more detail using traffic survey data collected specifically for this assessment. The survey data has been obtained to provide a picture of existing traffic conditions in Lymm, focussing on locations close to Peel's site where traffic impacts of the proposals will be highest.

6.1.7 Traffic surveys, comprising traffic counts and queue length surveys, were undertaken at the following junctions on Thursday 19 October 2017:

- Rushgreen Road / Reddish Crescent / Sainsburys Access<sup>1</sup>
- Rushgreen Road / Bucklow Gardens
- Rushgreen Road / Sandy Lane
- Sandy Lane / Stage Lane / Oughtrington Crescent
- Birch Brook Road / Chaise Meadow / Reddish Lane
- Birch Brook Road / Mill Lane
- A6144 The Cross / Pepper Street

**6.1.8** The traffic data has been processed to obtain the peak hour flows and the data has been converted to Passenger Car Units (PCU) for use in traffic capacity assessments. The peak hours are 07:45 – 08:45 and 17:00 – 18:00. The peak hour surveyed traffic flows are given on Appendix I.

**6.1.9** The 2017 observed traffic flows have been growthed to the end of the plan period (2037) as set out above. This is considered robust as peak hour traffic flows may not increase. The 2037 baseline traffic flows are given in Appendix J.

**6.1.10** The 2037 baseline traffic flows have been input to the ARCADY and PICADY programs contained within JUNCTIONS 9 and used to assess the performance of the local highway network. The results are summarised in the table below.

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<sup>1</sup> Survey repeated on Wednesday 20 June 2018.

**Table 6.1: 2037 Baseline Capacity Assessment Results**

| Junction   | Movement                         | AM Peak Hour |           | PM Peak Hour |           |
|--|----------------------------------|--------------|-----------|--------------|-----------|
|  |                                  | Max RFC      | Max Queue | Max RFC      | Max Queue |
| Rushgreen Road /<br>Reddish Crescent /<br>Sainsburys' Access | Rushgreen Road East Right-Turn   | 0.02         | 0         | 0.01         | 0         |
|  | Sainsburys' Access               | 0.08         | 0         | 0.38         | 1         |
|  | Rushgreen Road West Right-Turn   | 0.08         | 0         | 0.26         | 1         |
|  | Reddish Crescent                 | 0.09         | 0         | 0.08         | 0         |
| Rushgreen Road /<br>Bucklow Gardens                          | Bucklow Gardens                  | 0.20         | 0         | 0.13         | 0         |
|  | Rushgreen Road Right-Turn        | 0.12         | 0         | 0.08         | 0         |
| Rushgreen Road /<br>Sandy Lane                               | Sandy Lane Left-Turn             | 0.12         | 0         | 0.08         | 0         |
|  | Sandy Lane Right-Turn            | 0.44         | 1         | 0.22         | 0         |
|  | Rushgreen Road Right-Turn        | 0.29         | 1         | 0.25         | 1         |
| Sandy Lane / Stage<br>Lane /<br>Oughtrington<br>Crescent     | Stage Lane Left-Turn             | 0.05         | 0         | 0.02         | 1         |
|  | Stage Lane Right-Turn            | 0.04         | 0         | 0.09         | 0         |
|  | Oughtrington Crescent Right-Turn | 0.15         | 0         | 0.02         | 0         |
| Birch Brook Road /<br>Chaise Meadow /<br>Reddish Lane        | Birch Brook Road East            | 0.38         | 1         | 0.81         | 4         |
|  | Chaise Meadow                    | 0.22         | 0         | 0.17         | 0         |
|  | Birch Brook Road West            | 0.75         | 3         | 0.38         | 1         |
|  | Reddish Lane                     | 0.10         | 0         | 0.01         | 0         |
| Birch Brook Road /<br>Mill Lane                              | Mill Lane Left-Turn              | 0.07         | 0         | 0.27         | 0         |
|  | Mill Lane Right-Turn             | 0.59         | 1         | 0.77         | 3         |
|  | Birch Brook Road Right-Turn      | 0.23         | 1         | 0.11         | 0         |
| A6144 The Cross /<br>Pepper Street                           | Pepper Street Left-Turn          | 0.12         | 0         | 0.16         | 0         |
|  | Pepper Street Right-Turn         | 0.30         | 0         | 0.33         | 1         |
|  | A6144 Right-Turn                 | 0.32         | 1         | 0.20         | 0         |

6.1.11 The analysis demonstrates that all of the junctions operate within capacity with no significant queues or delays. It is therefore concluded that the capacity of the highway network in Lymm should not act as a constraint on development.

6.1.12 The next sections consider the specific impacts of the development proposals at Rushgreen Road.

## 6.2 Development Traffic Flows

6.2.1 Traffic flows have been calculated for a development of 411 residential dwellings.

### Trip Generation

6.2.2 Trip generation rates for the proposed development have been derived from the TRICS database using the 'Houses Privately Owned' category for sites with at least 100 dwellings. At this stage, no allowance has been made for lower trip rates associated with affordable housing on the site.

6.2.3 The trip generation rates and the resultant generated traffic flows are shown in the table below for the morning and evening peak hours.

**Table 6.2 Land Off Rushgreen Road, Lymm – Trip Generation**

| Peak Hour | Direction | Trip Rate (per unit) | No. Trips |
|-----------|-----------|----------------------|-----------|
| AM Peak   | Arrival   | 0.127                | 52        |
|           | Departure | 0.377                | 155       |
|           | Total     | 0.504                | 207       |
| PM Peak   | Arrival   | 0.309                | 127       |
|           | Departure | 0.164                | 67        |
|           | Total     | 0.473                | 194       |

6.2.4 Thus the development could generate up to c.195 - 210 vehicular trips in each of the peak hours.

6.2.5 TEMPRO has been used to identify the potential journey purposes travelled by residents. In the peak periods this identifies for the Lymm area:-

**Table 6.3 Lymm – Journey Purposes of Car Travel**

| Trip Purpose               | Proportion of Trips |                |
|----------------------------|---------------------|----------------|
|                            | AM Peak Period      | PM Peak Period |
| Work                       | 55%                 | 40%            |
| Employer's business        | 7%                  | 6%             |
| Education                  | 12%                 | 5%             |
| Shopping                   | 11%                 | 16%            |
| Personal business          | 6%                  | 7%             |
| Recreation/Social          | 3%                  | 8%             |
| Visiting friends/relatives | 2%                  | 11%            |
| Holiday/day trips          | 4%                  | 7%             |

6.2.6 Considering the above and the analysis presented earlier in this report related to facilities and services, there is clearly significant potential for some of the peak hour trips to be made locally and by active travel modes rather than the car e.g. to the adjacent school on site or nearby high

school. In the AM and PM peak periods, 38% and 54% of trips respectively are made for reasons other than journeys to work or on employer’s business. The traffic flows used are therefore concluded to be robust.

### **Trip Distribution and Assignment**

**6.2.7** The potential routes of car trips within and out of Lymm have been derived using 2011 Census journey to work patterns from the local area. This will over-estimate trips on the surrounding highway network as, as noted above, there is potential for many journeys to be made locally whereas work related trips tend to be made over longer distances.

**6.2.8** The Census data shows the following general distribution of trips:

**Table 6.4 Lymm – Overall Trip Distribution**

| <b>Destination/District</b> | <b>Proportion of Trips</b> |
|-----------------------------|----------------------------|
| Warrington Borough          | 29%                        |
| Salford                     | 5%                         |
| Trafford                    | 15%                        |
| Manchester                  | 15%                        |
| Halton                      | 3%                         |
| Cheshire West & Chester     | 4%                         |
| Cheshire East               | 7%                         |
| Other                       | 22%                        |
| Total                       | 100%                       |

**6.2.9** Of the trips to ‘other’ destinations, larger proportions are made to the rest of Greater Manchester (8%) and Merseyside (7%).

**6.2.10** Trips have been assigned to destinations using the fastest routes based on Google mapping. The resultant destination points on the road network surrounding the site are as follows:

**Table 6.5 Land off Rushgreen Road, Lymm – Trip Assignment**

| <b>Location</b>              | <b>Proportion</b> |
|------------------------------|-------------------|
| A56 Camsley Lane             | 7.1%              |
| Cherry Lane                  | 14.8%             |
| A56 Higher Lane (W of B5159) | 1.5%              |
| Sandy Lane/Stage Lane        | 20.7%             |
| A6144 Bent Lane              | 47.3%             |
| Within Lymm                  | 8.6%              |

| Location | Proportion |
|----------|------------|
| Total    | 100.0%     |

6.2.11 The development traffic flows on the local road network surrounding the site are given on Appendix K, noting these are considered to be an over-estimate for the reasons set out above.

## 6.3 Traffic Impacts

6.3.1 The local highway network in the vicinity of the site is shown on Appendix L. Rushgreen Road runs to the immediate north of the site and provides access to Lymm town centre to the west, becoming Eagle Brow. To the north-east of the site it connects with Sandy Lane and Mill Lane which both provide routes to A56 Higher Lane, which then connects to M56 Junction 7 at Bowdon. Bent Lane continues and connects with Townfield Lane (linking to A57 at Hollins Green) and Dunham Road (linking to A56 at Bowdon), continuing towards Partington and then Carrington after which it connects with M60 Junction 8. In Lymm town centre, Eagle Brow joins A56 Church Road. A56 continues westwards as Booth's Hill Road and Camsley Lane then providing access to Warrington.

6.3.2 The development generated traffic flows derived at 6.2 above (and shown in Appendix K) have been compared with the 2037 baseline traffic flows derived at 6.1 above (shown in Appendix J). The resultant total traffic flows at junctions on the local road network close to the site are given in the table below:

**Table 6.6: Proportional Impacts of Development Generated Traffic (411 dwellings)**

| Junction   | AM Peak            |                  |                     | PM Peak            |                  |                     |
|--|--------------------|------------------|---------------------|--------------------|------------------|---------------------|
|  | 2037 Baseline Flow | Development Flow | Proportional Impact | 2037 Baseline Flow | Development Flow | Proportional Impact |
| Rushgreen Road / Reddish Crescent / Sainsburys' Access | 1,109              | 104              | 9.4%                | 1,108              | 102              | 9.2%                |
| Rushgreen Road / Bucklow Gardens                       | 1,226              | 174              | 14.2%               | 1,166              | 163              | 14.0%               |
| Rushgreen Road / Sandy Lane                            | 1,330              | 141              | 10.6%               | 1,181              | 132              | 11.2%               |
| Sandy Lane / Stage Lane / Oughtrington Crescent        | 524                | 43               | 8.2%                | 304                | 40               | 13.2%               |

| Junction  | AM Peak            |                  |                     | PM Peak            |                  |                     |
|---|--------------------|------------------|---------------------|--------------------|------------------|---------------------|
|   | 2037 Baseline Flow | Development Flow | Proportional Impact | 2037 Baseline Flow | Development Flow | Proportional Impact |
| Birch Brook Road / Chaise Meadow / Reddish Lane | 1,285              | 98               | 7.6%                | 1,159              | 92               | 7.9%                |
| Birch Brook Road / Mill Lane                    | 1,472              | 98               | 6.7%                | 1,411              | 92               | 6.5%                |
| A6144 The Cross / Pepper Street                 | 827                | 66               | 8.0%                | 874                | 62               | 7.1%                |

**6.3.3** The Guidelines for Environmental Assessment of Road Traffic state that the day-to-day variation of traffic on a road is frequently at least some + or – 10%. The above table demonstrates that the development generated traffic flows will be within typical daily variations at most locations. Impacts are therefore unlikely to be discernible.

**6.3.4** The detailed impacts of the traffic flows generated by the proposals have been assessed at junctions on the local road network surrounding the site by comparing the base 2037 assessment results (as set out in Table 6.1) with those when the development traffic is added. The results are summarised in the table below.

**Table 6.7: Impacts of Development Generated Traffic at Junctions (411 dwellings)**

| Junction   | Movement                       | 2037 Baseline |           |              |           | 2037 with Development |           |              |           |
|--|--------------------------------|---------------|-----------|--------------|-----------|-----------------------|-----------|--------------|-----------|
|  |                                | AM Peak Hour  |           | PM Peak Hour |           | AM Peak Hour          |           | PM Peak Hour |           |
|  |                                | Max RFC       | Max Queue | Max RFC      | Max Queue | Max RFC               | Max Queue | Max RFC      | Max Queue |
| Rushgreen Road / Reddish Crescent / Sainsburys' Access | Rushgreen Road East Right-Turn | 0.02          | 0         | 0.01         | 0         | 0.02                  | 0         | 0.02         | 0         |
|  | Sainsburys' Access             | 0.08          | 0         | 0.38         | 1         | 0.08                  | 0         | 0.40         | 1         |
|  | Rushgreen Road West Right-Turn | 0.08          | 0         | 0.26         | 1         | 0.09                  | 0         | 0.28         | 1         |
|  | Reddish Crescent               | 0.09          | 0         | 0.08         | 0         | 0.09                  | 0         | 0.09         | 0         |
| Rushgreen Road / Bucklow Gardens                       | Bucklow Gardens                | 0.20          | 0         | 0.13         | 0         | 0.47                  | 1         | 0.27         | 0         |
|  | Rushgreen Road Right-Turn      | 0.12          | 0         | 0.08         | 0         | 0.17                  | 1         | 0.15         | 0         |
| Rushgreen Road / Sandy Lane                            | Sandy Lane Left-Turn           | 0.12          | 0         | 0.08         | 0         | 0.15                  | 0         | 0.15         | 0         |
|  | Sandy Lane Right-Turn          | 0.44          | 1         | 0.22         | 0         | 0.50                  | 1         | 0.24         | 0         |

| Junction  | Movement                         | 2037 Baseline |           |              |           | 2037 with Development |           |              |           |
|---|----------------------------------|---------------|-----------|--------------|-----------|-----------------------|-----------|--------------|-----------|
|   |                                  | AM Peak Hour  |           | PM Peak Hour |           | AM Peak Hour          |           | PM Peak Hour |           |
|   |                                  | Max RFC       | Max Queue | Max RFC      | Max Queue | Max RFC               | Max Queue | Max RFC      | Max Queue |
|   | Rushgreen Road Right-Turn        | 0.29          | 1         | 0.25         | 1         | 0.44                  | 2         | 0.32         | 1         |
| Sandy Lane / Stage Lane / Oughtrington Crescent | Stage Lane Left-Turn             | 0.05          | 0         | 0.02         | 1         | 0.05                  | 0         | 0.02         | 0         |
|   | Stage Lane Right-Turn            | 0.04          | 0         | 0.09         | 0         | 0.06                  | 0         | 0.14         | 0         |
|   | Oughtrington Crescent Right-Turn | 0.15          | 0         | 0.02         | 0         | 0.15                  | 0         | 0.02         | 0         |
| Birch Brook Road / Chaise Meadow / Reddish Lane | Birch Brook Road East            | 0.38          | 1         | 0.81         | 4         | 0.41                  | 1         | 0.88         | 6         |
|   | Chaise Meadow                    | 0.22          | 0         | 0.17         | 0         | 0.23                  | 0         | 0.18         | 0         |
|   | Birch Brook Road West            | 0.75          | 3         | 0.38         | 1         | 0.82                  | 4         | 0.41         | 1         |
|   | Reddish Lane                     | 0.10          | 0         | 0.01         | 0         | 0.12                  | 0         | 0.01         | 0         |
| Birch Brook Road / Mill Lane                    | Mill Lane Left-Turn              | 0.07          | 0         | 0.27         | 0         | 0.07                  | 0         | 0.35         | 1         |
|   | Mill Lane Right-Turn             | 0.59          | 1         | 0.77         | 3         | 0.63                  | 2         | 0.82         | 4         |
|   | Birch Brook Road Right-Turn      | 0.23          | 1         | 0.11         | 0         | 0.25                  | 1         | 0.12         | 0         |
| A6144 The Cross / Pepper Street                 | Pepper Street Left-Turn          | 0.12          | 0         | 0.16         | 0         | 0.13                  | 0         | 0.17         | 0         |
|   | Pepper Street Right-Turn         | 0.30          | 0         | 0.33         | 1         | 0.32                  | 1         | 0.34         | 1         |
|   | A6144 Right-Turn                 | 0.32          | 1         | 0.20         | 0         | 0.33                  | 1         | 0.21         | 0         |

**6.3.5** The assessment results demonstrate that all junctions on the surrounding highway network will operate within capacity. The development generated traffic flows have minor impacts with small increases in queues at some junctions.

**6.3.6** On this basis it is concluded that the potential development site at Rushgreen Road will have no material impact on the operation of the local highway network and this will not act as a constraint. In accordance with the NPPF, it is further concluded that development should not be prevented on transport grounds as the residual cumulative impacts of development will not be severe.



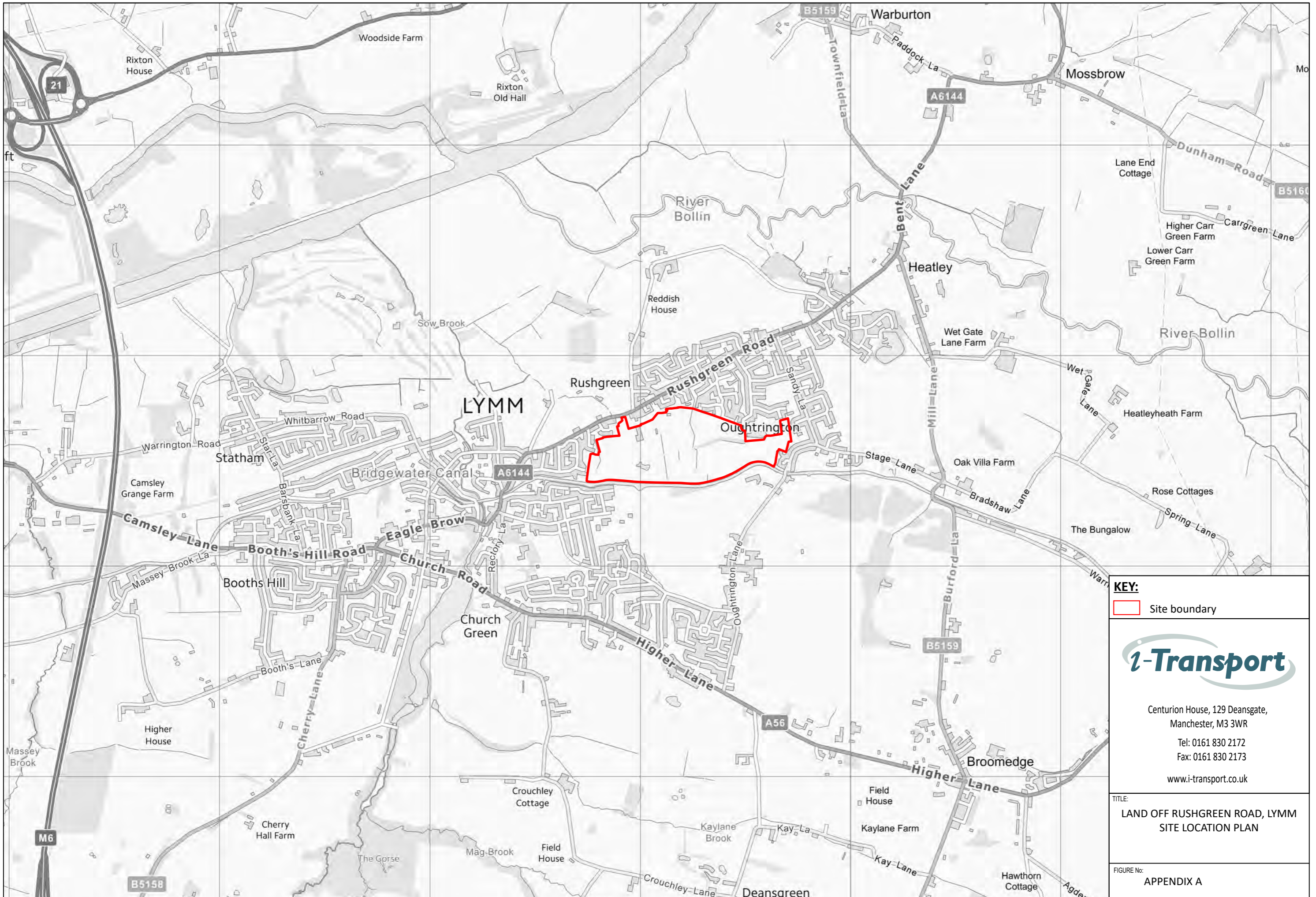
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## SECTION 7 Conclusions

- 7.1 This report has considered the transport and highways implications of development off Rushgreen Road in Lymm. The site is capable of accommodating up to 411 dwellings and could be delivered in phases.
- 7.2 The Council's proposed allocation at Lymm is for an additional 300 dwellings. No detailed quantitative analysis has been published by the Council that analyses the capacity of the transport system and the impacts of higher levels of development. There is therefore no justification, based on sound evidence, to limit development in Lymm on transport grounds.
- 7.3 Lymm is a self-contained town with many local facilities and services and follows the 'Walkable Neighbourhood' principles – there are a range of facilities within walking distance of residential areas which residents can access comfortably on foot.
- 7.4 The combination of the size of the settlement and the range of facilities and services makes for the use of integrated and accessible transport. Development in Lymm can be focussed on making walking, cycling and bus the most attractive forms of local transport, with residents able to meet their day-to-day needs locally.
- 7.5 Thus Lymm has many existing characteristics which will support and promote suitable development and sustainable travel patterns, meeting day-to-day needs and which confirm its suitability as a location for development.
- 7.6 Analysis of future baseline traffic conditions demonstrates that all of the junctions close to the site operate within capacity with no significant queues or delays. It is therefore concluded that the capacity of the highway network in Lymm should not act as a constraint on development.
- 7.7 The site is itself located adjacent to built development in Lymm and is highly sustainable. A range of facilities and services will be available locally within walking and cycling distance of the site. These include: the adjacent Oughtrington primary school; the nearby Lymm high school; the adjacent Sainsbury's food store; and a range of health, shopping, library and post office and leisure facilities in Lymm town centre.
- 7.8 The site will therefore meet the transport related objectives of the PSLP and strongly meet most of the five specific accessibility criteria defined by the Council.

- 7.9 It is therefore considered that the development of the site will fully accord with the NPPF objective (paragraph 108) related to sustainable travel, with opportunities for such modes taken up.
- 7.10 Access to the site is proposed in two locations and feasibility level designs have been produced and the capacity of these assessed. Both will operate satisfactorily. Site access is deliverable and achievable. The Council's reasons for discounting access via Bucklow Gardens are not appropriate. It is therefore also concluded that satisfactory access can be provided in accordance with the NPPF.
- 7.11 The assessment of the impacts of the traffic increases as a result of the development demonstrates that proposals will not have material impacts on the surrounding local highway network. On this basis it is concluded that, in accordance with the NPPF, development should not be prevented on transport grounds as the residual cumulative impacts of development will not be severe.
- 7.12 Overall, it is therefore concluded that the site off Rushgreen Road at Lymm is suitable for allocation in the Council's Local Plan and will form a sustainable development that can provide much needed housing.

## **APPENDIX A.** Site Location Plan



**KEY:**  
 Site boundary

**i-Transport**

Centurion House, 129 Deansgate,  
 Manchester, M3 3WR  
 Tel: 0161 830 2172  
 Fax: 0161 830 2173  
[www.i-transport.co.uk](http://www.i-transport.co.uk)

TITLE:  
**LAND OFF RUSHGREEN ROAD, LYMM  
 SITE LOCATION PLAN**

FIGURE No:  
**APPENDIX A**

## **APPENDIX B.** Warrington Cycle Map



Produced by Warrington Cycle Forum, a partnership between Warrington Borough Council, Warrington Cycle Campaign and other interested parties. Funded by the Department for Transport's Local Sustainable Transport Fund.

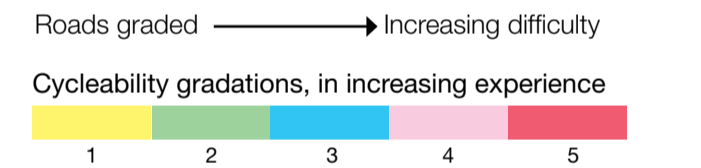
Every effort has been taken to provide an accurate and useful guide. If you have any comments on the guide please contact us:  
 Transport For Warrington  
 New Town House  
 Buttermarket Street  
 Warrington WA1 2NH  
 travelwarrington@warrington.gov.uk

Cartography © Sustrans FourPoint Mapping for Warrington Borough Council  
 www.sustrans.org.uk

Front cover photos: Warrington Borough Council, C.Presad, Sustrans and J.Bewley, Sustrans

**How to use this guide...**

The Warrington Cycle Map has been created to assist all cyclists with planning the best route for your journey.



The road network shown on the map is graded according to the degree of skill and experience needed to cycle each route. If you are a beginner or haven't cycled for some time, you should build up your confidence and basic skills on the yellow roads where traffic is lighter and speeds are low.

As your cycling skills increase, so you can explore the green roads. When you are able to deal with heavier and faster traffic you can venture onto the blue and pink routes.

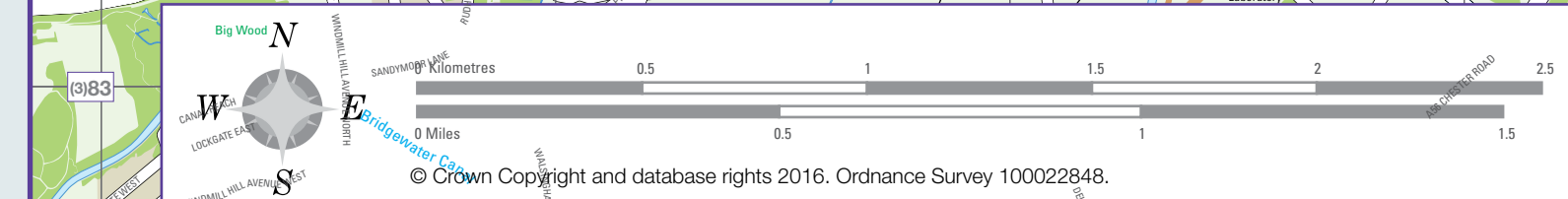
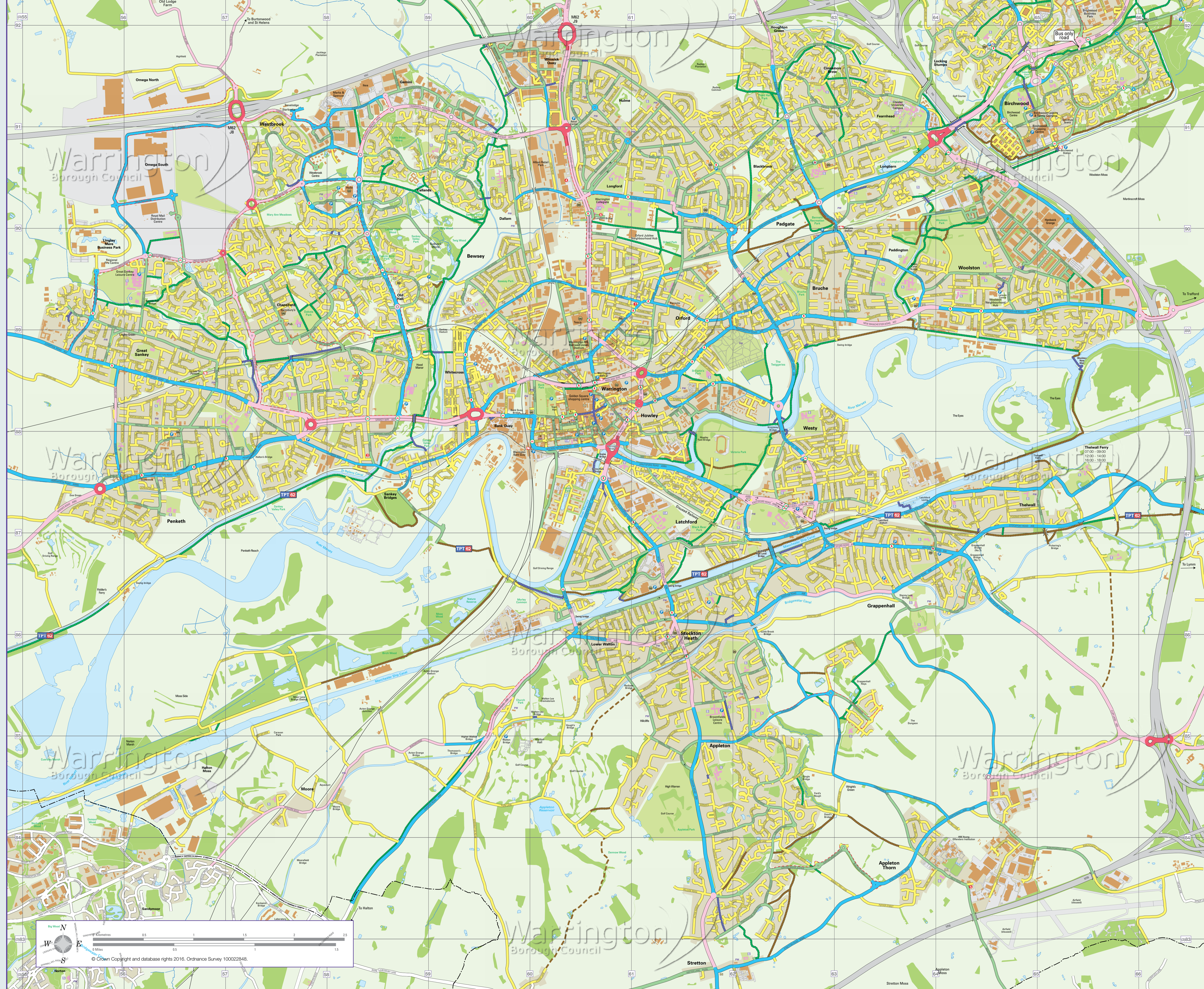
Pavement cycle paths, in particular, still require caution and low speed, especially at junctions. Wherever paths are shared with pedestrians, please be considerate; make sure that others are aware of you, and pass slowly leaving as much room as possible. In all cases of shared and segregated pavement cycling the right of way remains with the pedestrian.

**Key**

Cycleability gradations, in increasing experience

1 2 3 4 5

- Tarmac surfaced cycle paths
- Unsurfaced cycle paths
- Bridleway
- Pedestrian links
- Shared-use cycle path
- Motorway
- One way
- One way with contra flow cycling permitted
- National Cycle Network route number & Trans-Pennine Trail
- Railway station
- Bus interchange
- Schools
- Colleges
- Hospital
- Place of worship
- Library
- Supermarket
- Post office
- Cycle parking
- Bridge
- Pedestrian cross crossing
- Toucan crossing



Want to find out more about **ORGANISED CYCLE RIDES AND GROUPS** in Warrington?

CONTACT THE ACTIVE LIVEWIRE TEAM ON **01925 624996**

1 yourLiveWire WARRINGTON 06  
2 yourLiveWire  
LiveWire live.warrington.gov.uk

**Cycle shops**

There are various cycle shops across the town, most offer at least a partial maintenance service. They are:

- Raleigh Cyclelife**  
1 Birchbrook Road, Heatley, Lymm WA13 9RR
- Cyclehouse**  
Buckley Street WA2 7NS
- D & M Cycles**  
Hood Lane, Sankey Bridges WA5 1EJ
- Halfords**  
Alban Retail Park WA2 8TW
- Cheshire Cycles**  
Burley Lane, Apollon Thorn, Warrington WA4 4RP
- Decathlon**  
Jubilee Way/Winwick Road WA2 8HE
- Ron Spencer Cycles**  
186 Orford Lane WA2 7BE
- S.R Electrical & Cycles**  
53 Norris Street, Orford WA2 7RL



**Lymm**

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**Burtonwood**

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**Winwick**

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**Warrington town centre**

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**Culcheth**

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**Cycle safety**

Lights for night riding must be used - dynamos are greener and cheaper than batteries in the long term (some flashing LED lights are now allowed but check to make sure yours are acceptable). It is also a legal requirement to have front and rear reflectors on your bike.

Consider wearing reflective and bright clothing to make you more visible.

A cycle helmet is optional but can help to protect you against head injury.

Another way to help improve your cycling skills and safety is through cycle training.

**Cycle training**

Warrington has a full programme of free cycle training in schools. The scheme delivers high quality Bikeability training to all 10 year olds in the Borough.

Free adult cycle training is also available to anyone over 16 who lives, works or studies in Warrington. The **FREEWHEELING** courses are for absolute beginners through to experienced riders and give you the skills and confidence to cycle safely in traffic.

Training is delivered informally by friendly but fully accredited instructors and courses are available during daytime, evenings and weekends.

Apply at [www.bikeright.co.uk/freewheeling](http://www.bikeright.co.uk/freewheeling) or call 0161 230 7007.

**Cycle parking**

Cycle parking can be found across Warrington, with at least 9 locations around the town centre. These are shown on the map by a . Whenever you leave your bike in a public place, always lock it by securing the frame to a permanent fixture. It is best to use a D lock, though even these can vary in quality, so choose a sturdy one. Crime Prevention Officers say that if all cyclists used high quality D locks, theft could fall by up to 90%! Remember to remove any quick release parts such as lights. It's a good idea to note your bike's make, colour and frame number and make sure that you add it to your household insurance policy. It's also worth post-coding or tagging your bike.

**Warrington overview map showing strategic routes**

**How long to cycle a mile?**

10 minutes at leisure      5 minutes at moderate pace      3 minutes at speed

© Crown Copyright and database rights 2016. Ordnance Survey 100022848.

**Birchwood**

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**Key**

Cycleability gradations, in increasing experience

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

Tarmac surfaced cycle paths  
 Unsurfaced cycle paths  
 Bridleway  
 Pedestrian links  
 Shared-use cycle path  
 Motorway  
 One way  
 One way with contra flow cycling permitted

National Cycle Network route number & Trans-Pennine Trail  
 Railway station  
 Bus interchange  
 Schools  
 Colleges  
 Hospital  
 Place of worship  
 Library  
 Supermarket  
 Post office  
 Cycle parking  
 Bridge  
 Pedestrian crossing  
 Toucan crossing

**Highways maintenance**

To report a fault or pothole complete the web form on [www.warrington.gov.uk](http://www.warrington.gov.uk)

Warrington Borough Council maintains approximately 1144km of roads and 1068km of footways making this our largest valued asset. The council is investing £40 million between 2015 and 2020 to provide essential maintenance to the highway and footway/cycleway network, which will provide a smoother ride for cyclists.

**Streetlighting**

To report a fault complete the web form on [www.warrington.gov.uk](http://www.warrington.gov.uk)

The council maintains the majority of the 26,000 streetlights and 4,000 lit signs and bollards across the road network. Between 2015 and 2017 the council is investing £35 million to replace 18,000 street lights, columns and lanterns, which is essential to maintaining lighting across the authority for all users.

**Advice to motorists & cyclists**

**Motorists should..**

- Be aware of cyclists and take extra care at junctions, traffic lights and roundabouts.
- Give cycles plenty of room when overtaking, usually 2m (6 feet) - if there isn't room to overtake, be patient.
- Obey speed limits.
- Obey Advanced Stop Lines (green boxes at traffic signals designed to give cyclists a head start).
- Not park in or obstruct cycle lanes.
- Expect cyclists to leave cycle lanes at certain times for manoeuvres such as right turns.

**Cyclists should..**

- Ensure the cycle is in good working order and appropriately lit at night.
- Not cycle on the footway unless it is signed as a shared access route.
- Be considerate and give priority when sharing with pedestrians, especially alongside canals and waterways.
- Never cycle through red lights.
- On road, cycle at least 1m from the kerb where cars can see you and away from grids and gullies.
- Take care passing alongside slow moving traffic.
- Watch out for left turning vehicles as you could be in their blind spot.
- Get and read a copy of "Cyclecraft" - considered the definitive guide to safe and confident cycling.

**Signs & symbols**

**Common road signs and markings that you may come across when cycling through the borough.**

|  |  |
|--|--|
| No entry (for all vehicles including cyclists)         | Motor vehicles prohibited (cycles permitted) |
| No cycling   | Be aware of cyclists                         |
| Route for use by pedal cycles only                     | Segregated route                             |
| With flow cycle lane ahead                             | Shared route for cyclists and pedestrians    |
| Cycle route  | Cycle lane                                   |
| Cycle route forming part of the National Cycle Network |  |

**Advanced stop lines**

- Advanced stop lines enable cyclists to negotiate junctions safely.
- When the traffic signals are red, cyclists move ahead of a "reservoir" area to position themselves safely ahead of motorists.

**Cycling for health**

People who cycle regularly not only enjoy the fitness levels of non cyclists ten years their junior but research has shown that they usually live many years more too. In fact research has shown cycling to be the most effective way to increase longevity!

Here are a few reasons why:

**Cycling is good for your heart**

Cycling belongs to the type of exercise known as aerobic, meaning that it uses large muscles in a continuous and rhythmic manner producing beneficial changes in the respiratory and circulatory systems. In other words it's fantastic for your heart and lungs. Regular cycling at a comfortable exertion will make your heart stronger and your lungs more efficient.



**Cycling is enjoyable**

Remember as a child how long you would spend on your bike? Why? It's because it was great fun. Warrington has many parks and open spaces where you too can relive those fun times in a safe environment and get some great exercise as well.

**Weight control**

Cycling on a regular basis will help to turn your body into a fat burning machine! The more often the body gets exercise the more fat burning enzymes it produces and burns greater amount of calories even when you are resting. A 15-minute cycle to and from work five times a week will burn the equivalent of 3/4 stone in fat alone over the course of one year.



**Cycling is no sweat**

Ever been to a gym and sat on the bike pedalling away drenched in sweat? It isn't nice. But when cycling outside you get air movement around your body and this keeps you cooler. Ensure you choose an area that has few or no hills to keep the exertion at a comfortable pace for you and still be rewarded with all the benefits for your body.

**Cycling will make you green**

Do your bit for the environment if you can by cycling regularly, especially for those short journeys when you don't really need to take the car. Think about going to work on your bike a few times per week saving you pounds over the year and help to cut down on damaging emissions. Hours wasted sat in traffic jams could be a thing of the past for you.

**With all these things and more in mind now is the time to get on yer bike!**

**Brompton bike hire**

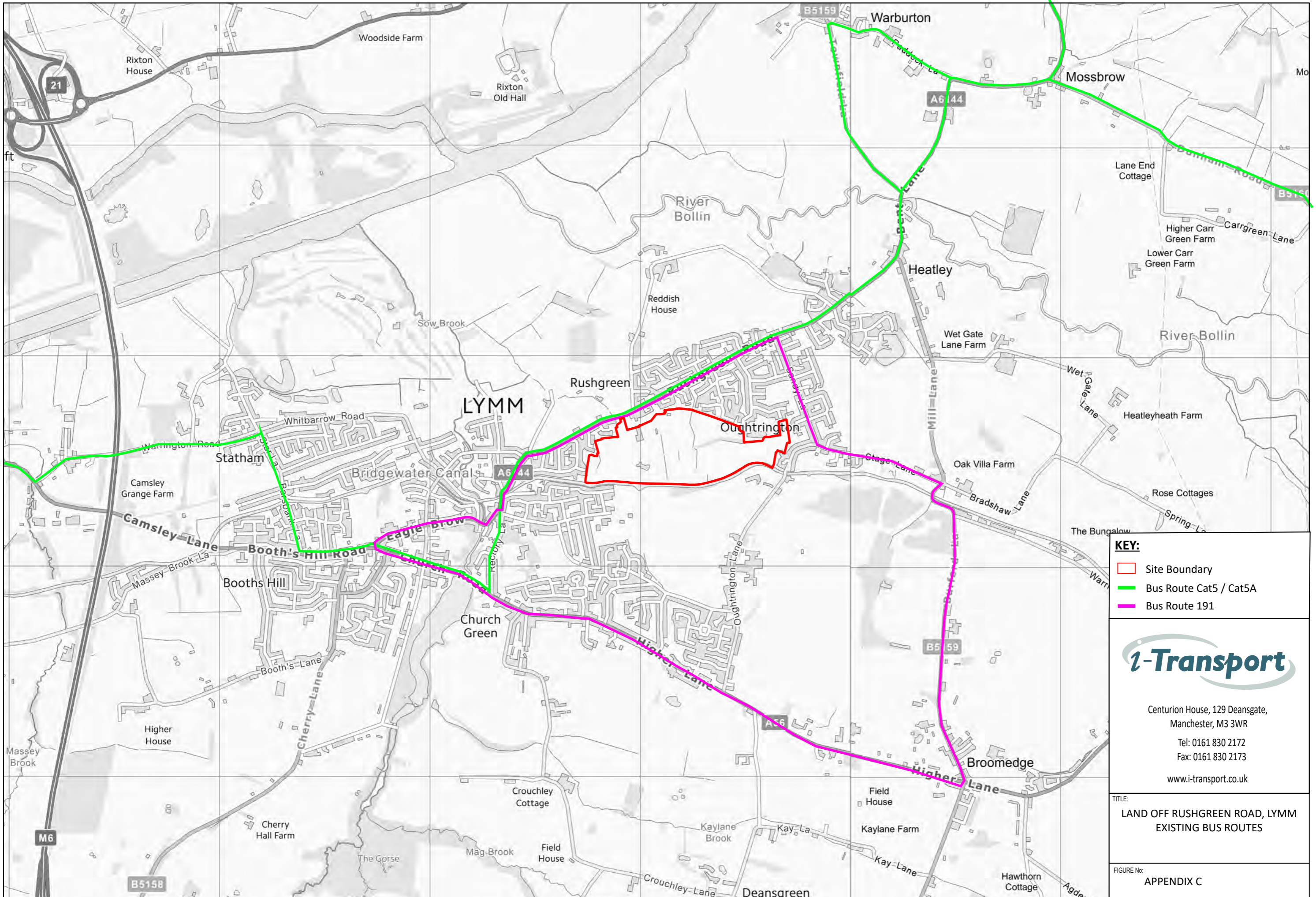
You can hire a Brompton folding bike from any of the three docks located at Warrington Bank Quay, Warrington Central and Birchwood railway stations. The bikes are a great way to get around town, or if you're going further afield you can pop the folded bike in your car boot, or take it on trains or buses.

Hiring a bike is simple, once you've registered online, bikes can be reserved online or by text message. You can keep the bike for as long as you like, from hours to weeks at a time, and return it to any of the docks.

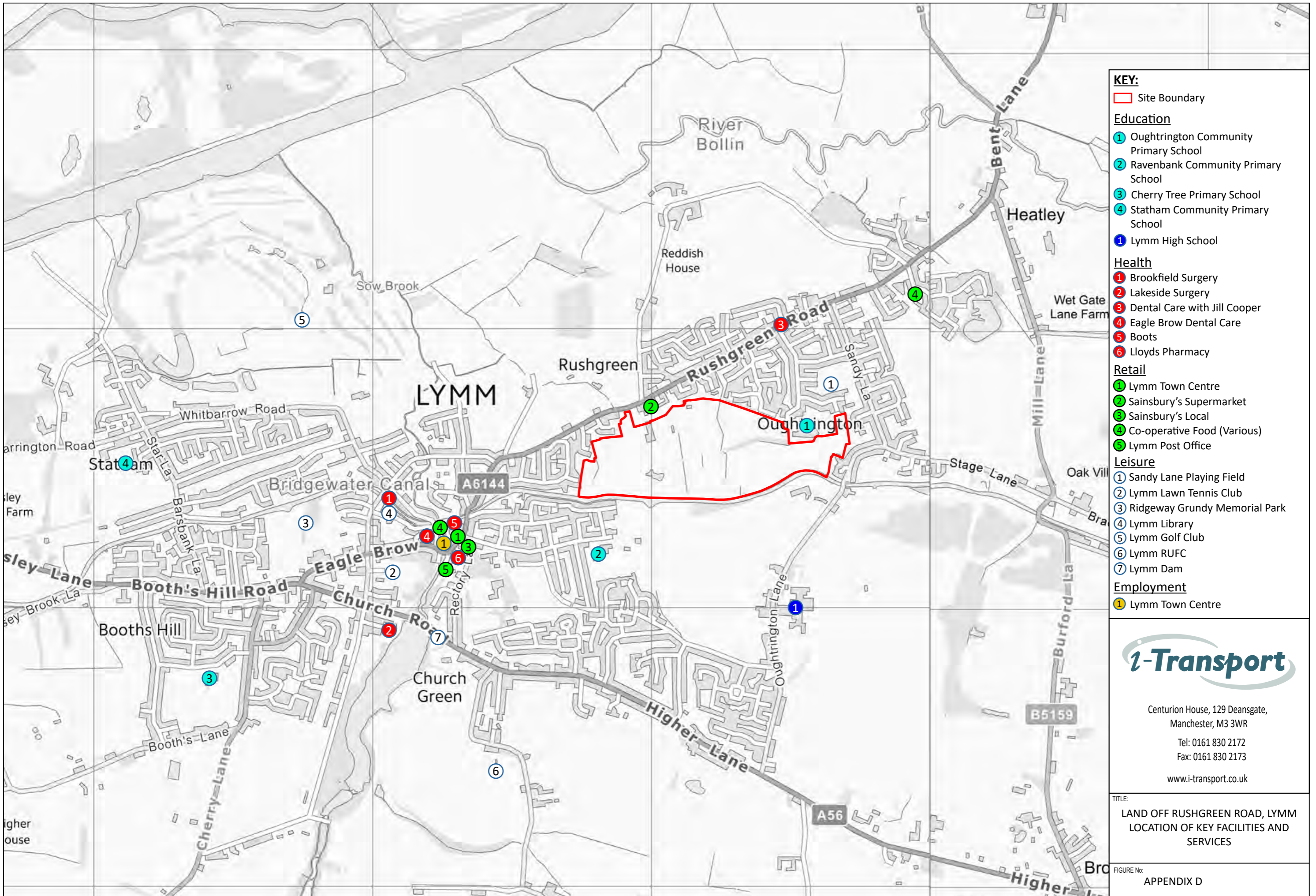
Register today at [www.bromptonbikehire.co.uk](http://www.bromptonbikehire.co.uk)

## **APPENDIX C.** Existing Bus Routes





## **APPENDIX D.**Location Of Key Facilities And Services

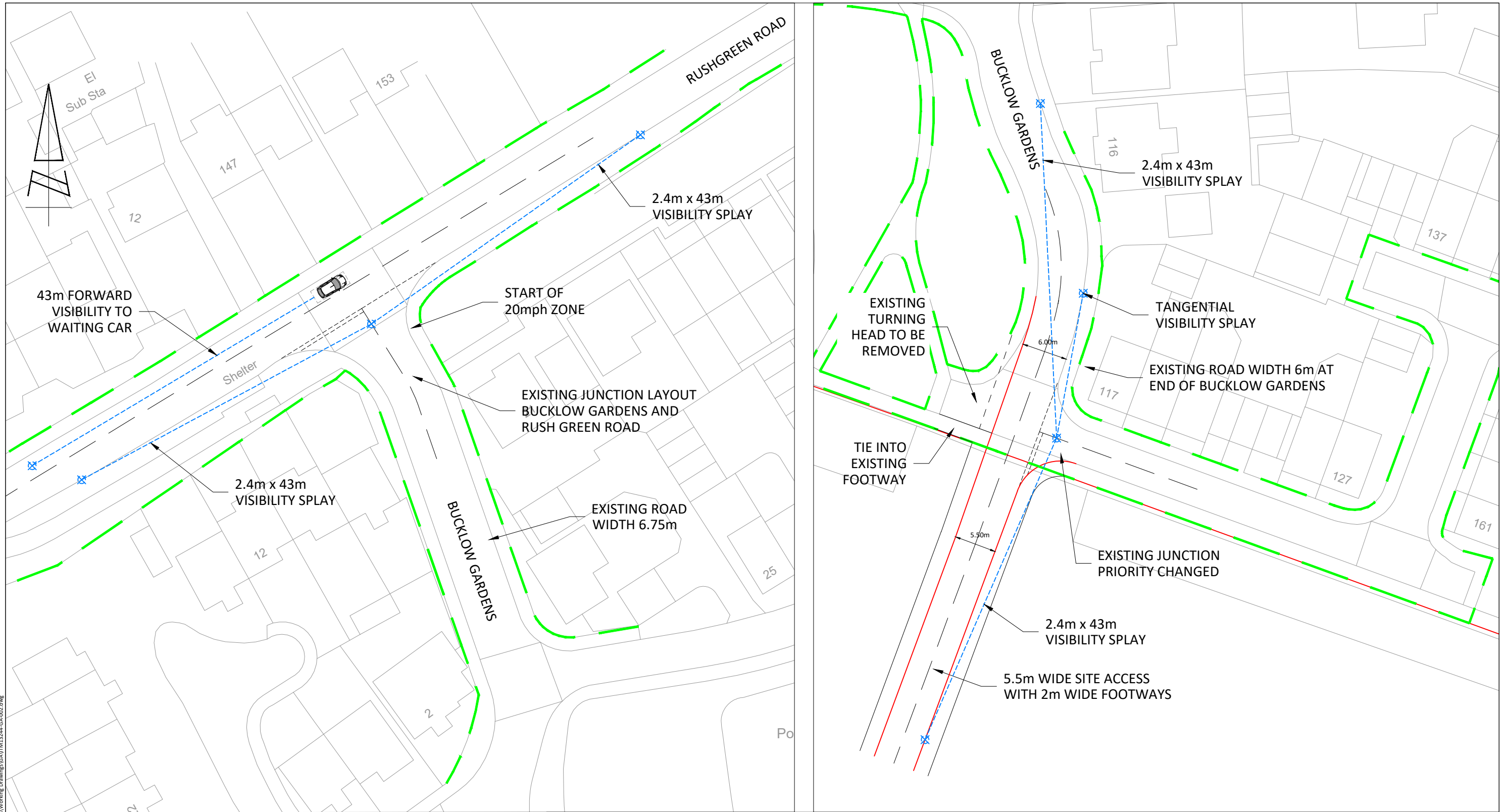


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TITLE:  
LAND OFF RUSHGREEN ROAD, LYMM  
LOCATION OF KEY FACILITIES AND  
SERVICES

FIGURE No:  
APPENDIX D

## **APPENDIX E.** Potential Site Accesses Via Bucklow Gardens



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SCALE BAR @ 1:500



— — — — — HIGHWAY BOUNDARY



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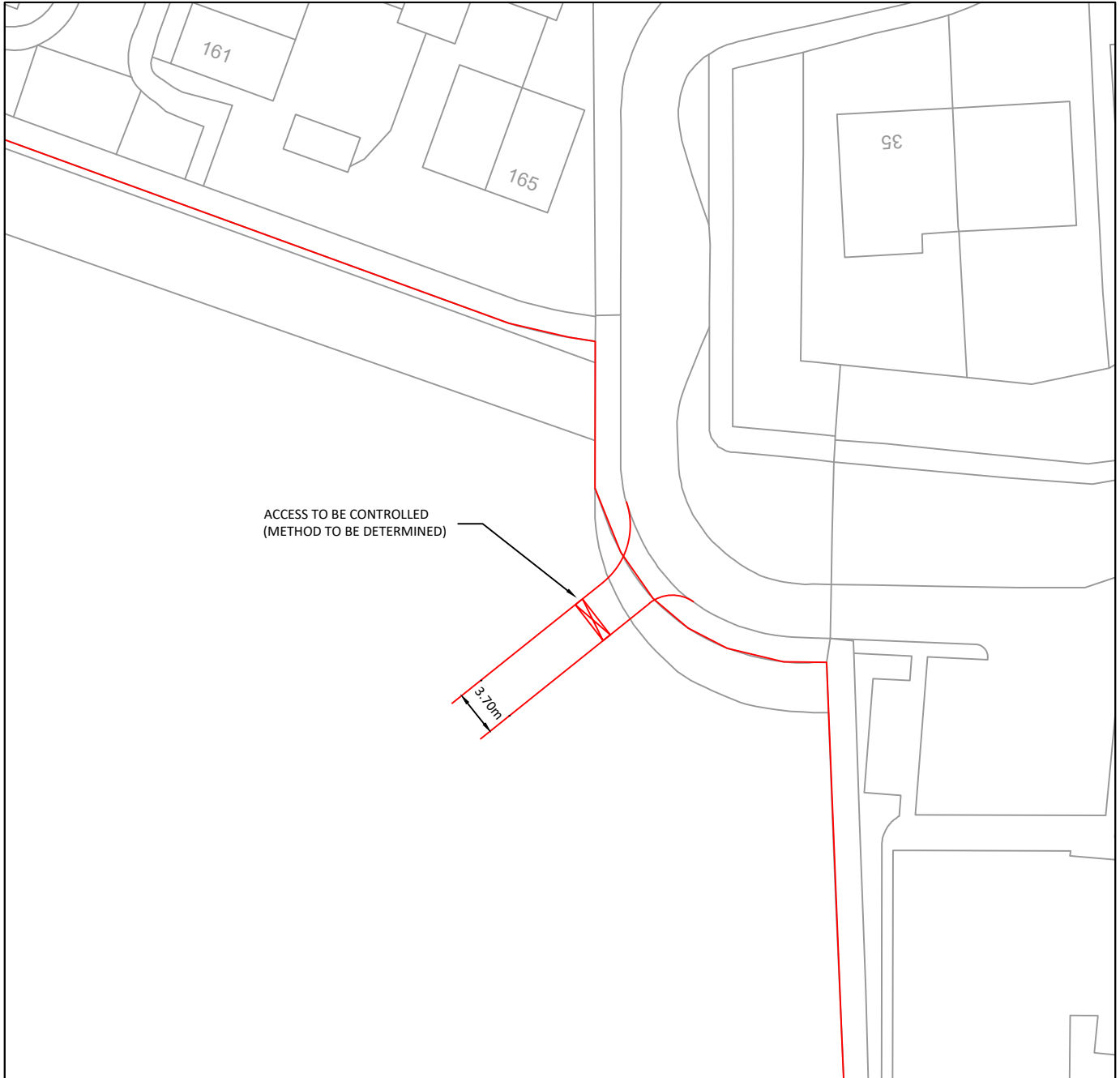
Tel: 0161 830 2172  
Fax: 0161 830 2173

| REV           | DATE | BY | DESCRIPTION | CHK | APD |
|---------------|------|----|-------------|-----|-----|
| STATUS: DRAFT |      |    |             |     |     |

|  |  |   |                 |                     |
|--|--|---|-----------------|---------------------|
| TITLE:<br>POTENTIAL SITE ACCESS<br>VIA BUCKLOW GARDENS |  | SCALE @ A3:<br>1:500                            | CHECKED:<br>SEE | APPROVED:<br>SEE    |
| PROJECT:<br>LAND OFF RUSHGREEN ROAD, LYMM              |  | FILE REF:<br>ITM13244-GA-002                    | DRAWN:<br>PH    | DATE:<br>23.08.2017 |
| CLIENT:<br>PEEL INVESTMENTS (NORTH) LIMITED            |  | DRAWING No:<br>APPENDIX E (ITM13244 - GA - 002) |                 |                     |
|  |  | PROJECT No:<br>ITM13244                         |                 | REV:<br>-           |

Z:\Projects\13244\ITM Land off Rush Green Road, Lymm\Tech\Acad\Working Drawings\GA\ITM13244-GA-002.dwg

## **APPENDIX F.** Potential Emergency Vehicle Access Via Howard Avenue



| REV | DATE | BY | DESCRIPTION | CHK | APD |
|-----|------|----|-------------|-----|-----|
|     |      |    |             |     |     |

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STATUS: **DRAFT**

PROJECT: **LAND OFF RUSHGREEN ROAD, LYMM**

TITLE: **POTENTIAL EVA ACCESS VIA HOWARD AVENUE**

CLIENT: **PEEL INVESTMENTS (NORTH) LTD**



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Manchester, M3 3WR**

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Fax: 0161 830 2173**

**www.i-transport.co.uk**

|                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| SCALE @ A4:<br><b>1:500</b> | CHECKED:<br><b>SEE</b> | APPROVED:<br><b>SEE</b> |
|-----------------------------|------------------------|-------------------------|

|                              |                     |                          |
|------------------------------|---------------------|--------------------------|
| FILE REF:<br><b>ITM13244</b> | DRAWN:<br><b>JB</b> | DATE:<br><b>12.09.17</b> |
|------------------------------|---------------------|--------------------------|

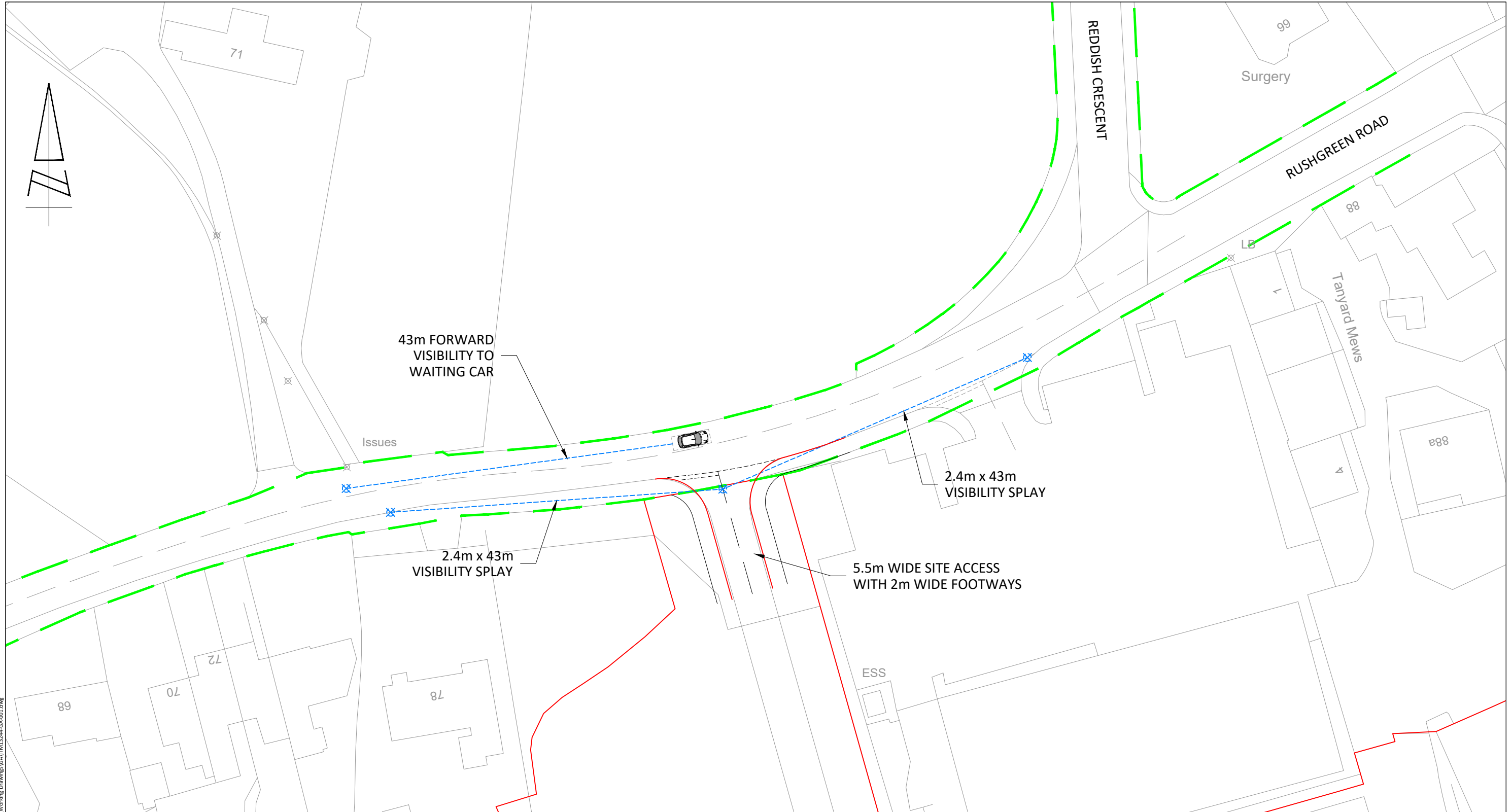
DRAWING No: **APPENDIX F (ITM13244-GA-003)**

|                                |      |
|--------------------------------|------|
| PROJECT No:<br><b>ITM13244</b> | REV: |
|--------------------------------|------|

Z:\Projects\13244\ITM Land of Rush Green Road - Lymm\Tech\Acad\I-Transport\Drawings\Working Drawings\ITM13244-GA-003.dwg

## **APPENDIX G.**Potential Site Access From Rushgreen Road

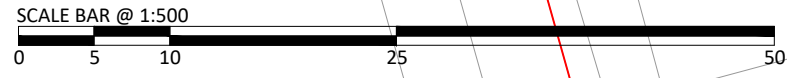




Z:\Projects\13244\ITM Land off Rush Green Road, Lymm\Tech\Acad\Working Drawings\GA\ITM13244-GA-001.dwg

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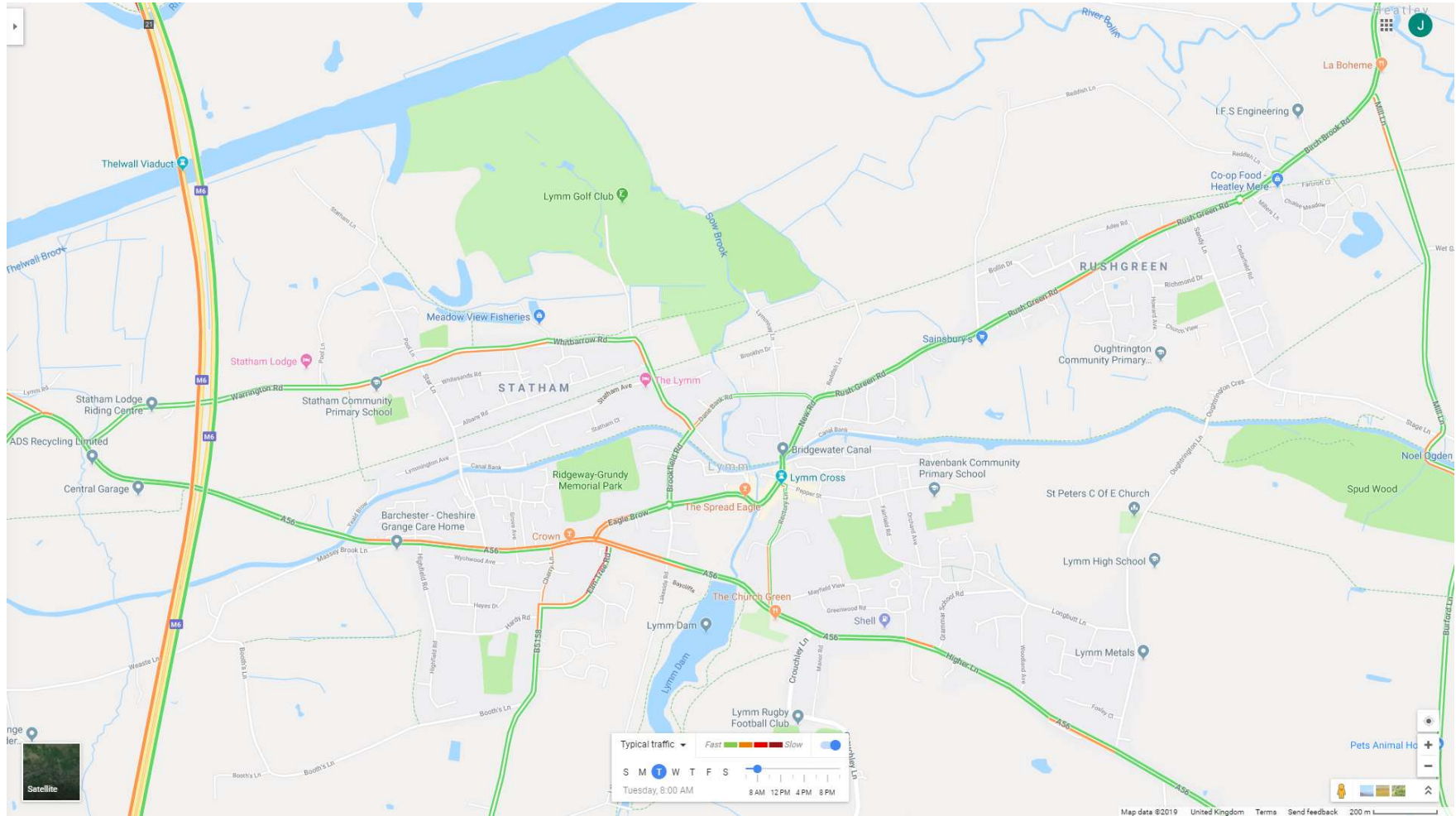
| REV           | DATE | BY | DESCRIPTION | CHK | APD |
|---------------|------|----|-------------|-----|-----|
| STATUS: DRAFT |      |    |             |     |     |

|   |   |
|---|---|
| TITLE:<br>POTENTIAL SITE ACCESS FROM RUSHGREEN ROAD |   |
| PROJECT:<br>LAND OFF RUSHGREEN ROAD, LYMM           | CLIENT:<br>PEEL INVESTMENTS (NORTH) LIMITED |

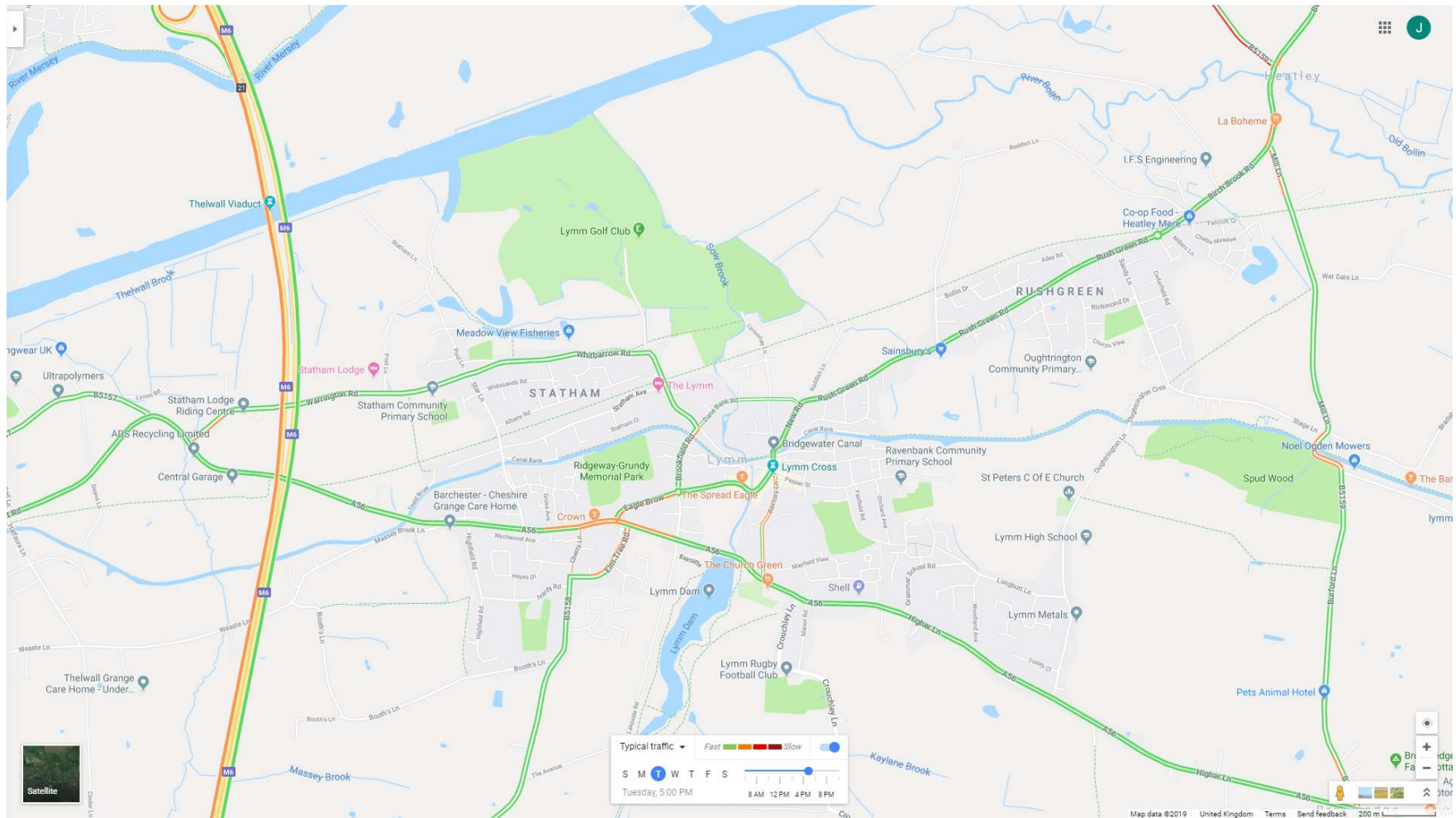
|   |                 |                     |
|---|-----------------|---------------------|
| SCALE @ A3:<br>1:500                            | CHECKED:<br>SEE | APPROVED:<br>SEE    |
| FILE REF:<br>ITM13244-GA-001                    | DRAWN:<br>PH    | DATE:<br>23.08.2017 |
| DRAWING No:<br>APPENDIX G (ITM13244 - GA - 001) |                 |                     |
| PROJECT No:<br>ITM13244                         | REV:<br>-       |                     |

## **APPENDIX H.** Google Traffic Maps

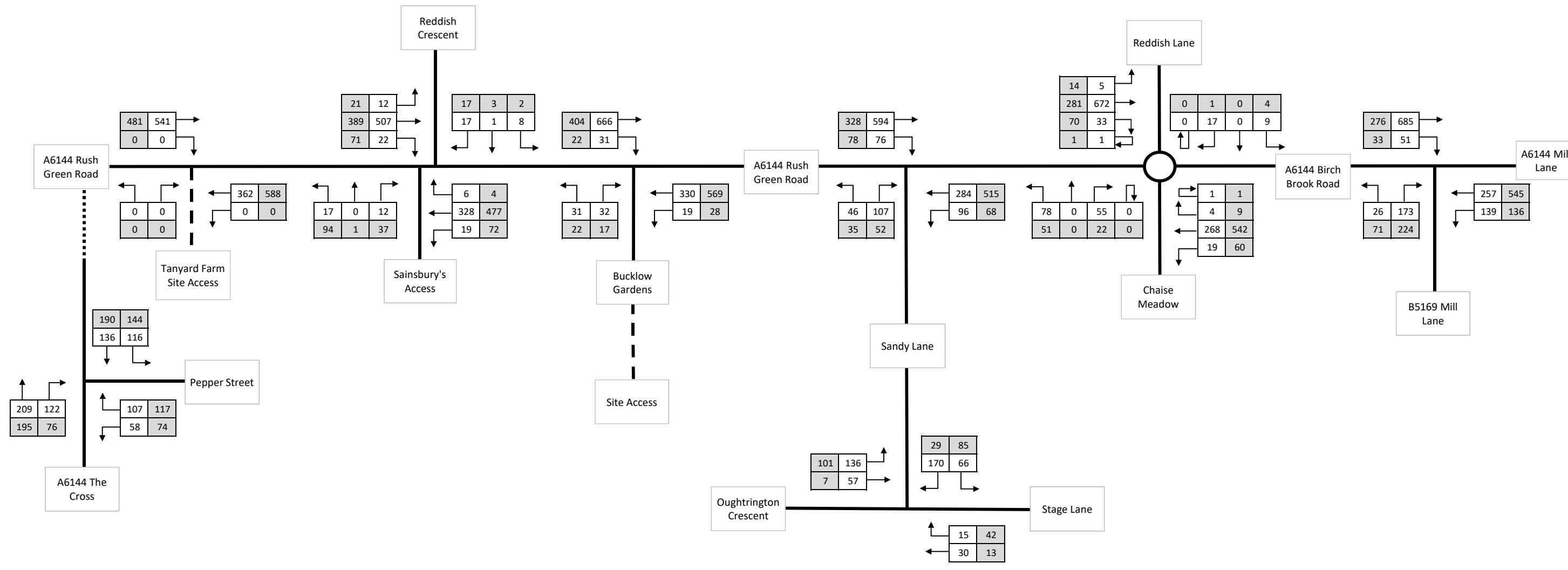
# Lymm - AM Peak (08:00)



### Lymm - PM Peak (17:00)



## **APPENDIX I. 2017 Observed Traffic Flows**



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LAND OFF RUSH GREEN ROAD, LYMM

Appendix I

2017 Observed Traffic Flows

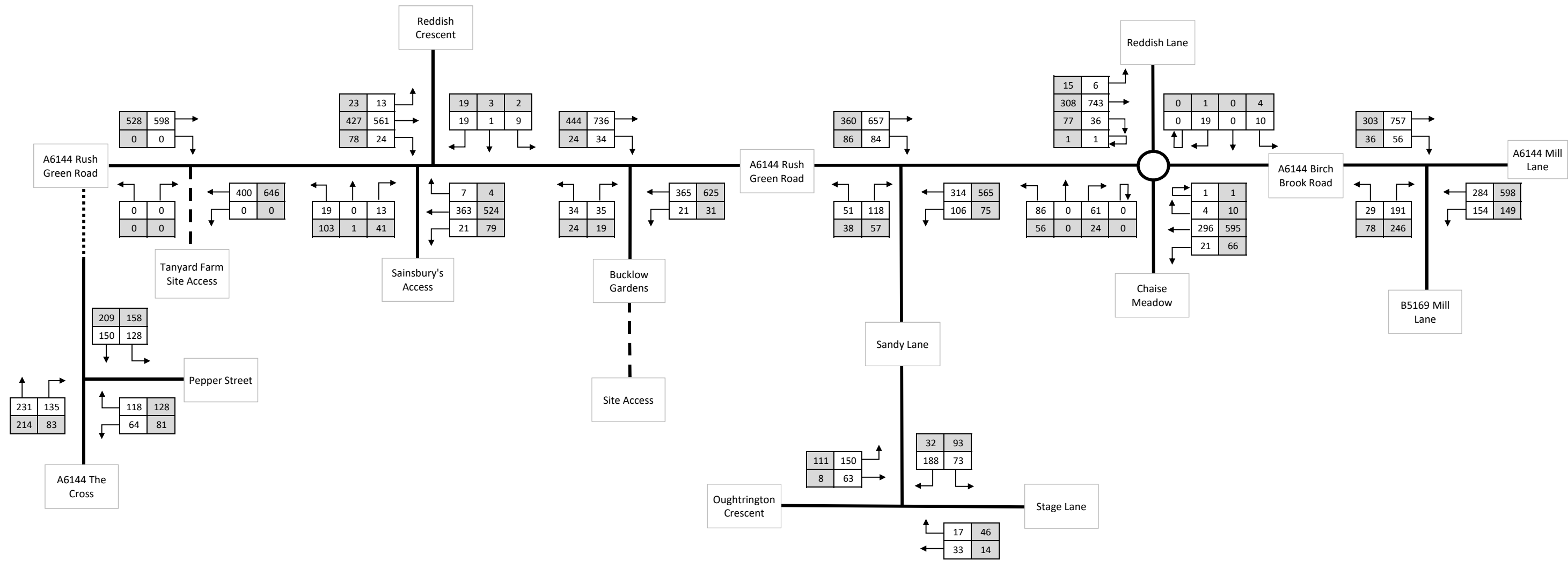
**KEY**

= AM PEAK (PCUs)

= PM PEAK (PCUs)

Notes:  
AM Peak: 07:45-08:45  
PM Peak: 17:00-18:00

## **APPENDIX J. 2037 Baseline Traffic Flows**



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LAND OFF RUSH GREEN ROAD, LYMM

Appendix J

2037 Base

**KEY**

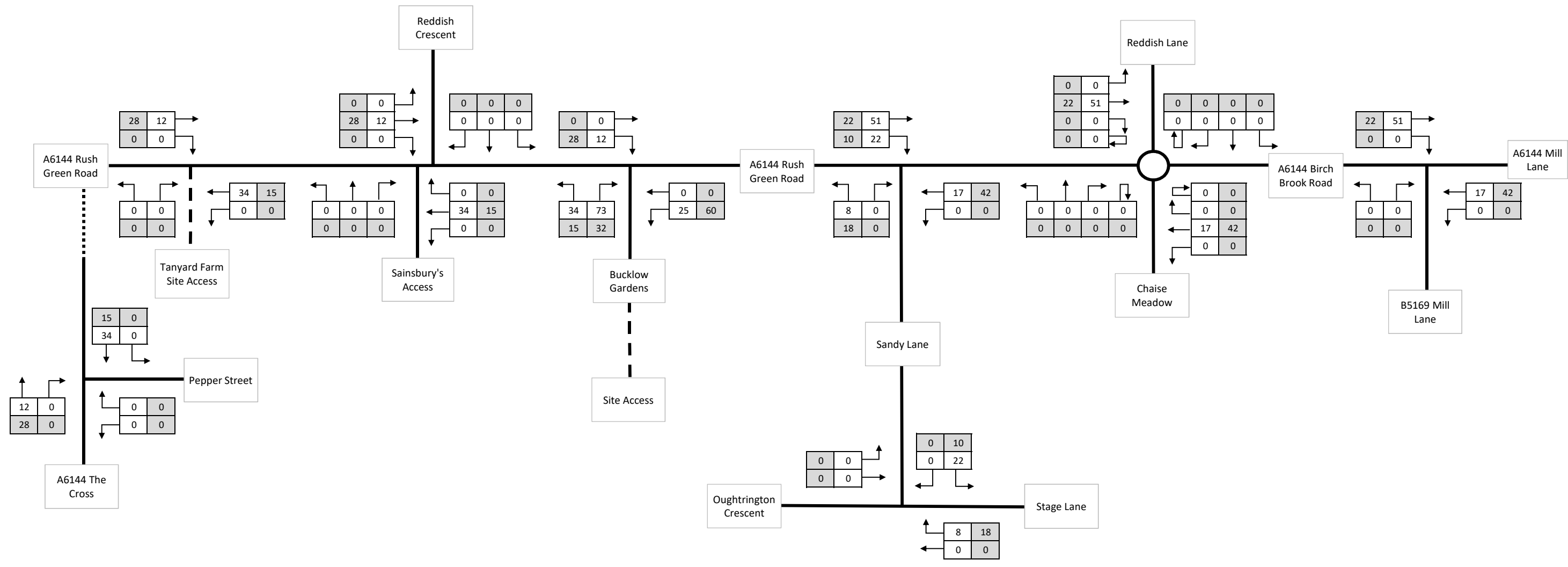
= AM PEAK (PCUs)

= PM PEAK (PCUs)

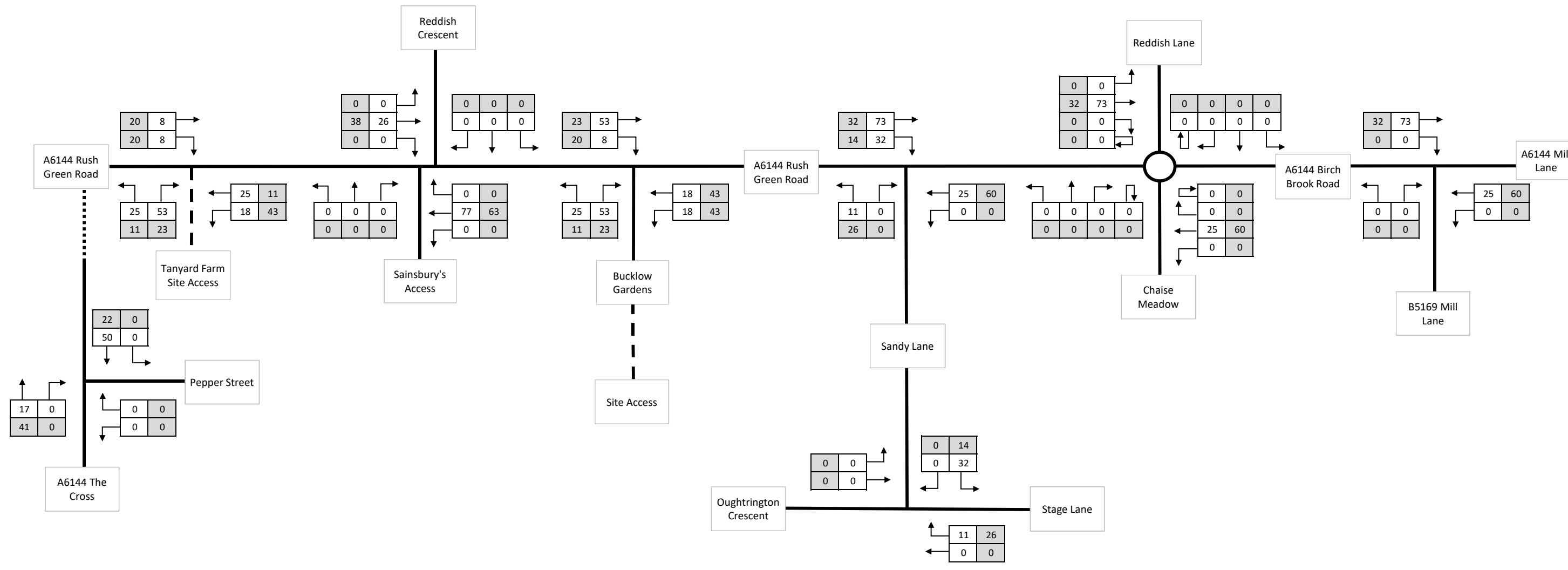
Notes:  
Growth Factors: AM  
Peak = 1.1056 PM  
Peak = 1.0978



## **APPENDIX K.** Development Traffic Flows



|   |  |                        |
|---|--|------------------------|
|   | Centurion House, 129 Deansgate,<br>Manchester, M3 3WR<br>Tel: 0161 830 2172<br>www.i-transport.co.uk | <b>KEY</b>             |
| LAND OFF RUSH GREEN ROAD, LYMM            |  | [500] = AM PEAK (PCUs) |
| Appendix K                                |  | [500] = PM PEAK (PCUs) |
| Development Traffic Flows (285 Dwellings) |  | Notes:                 |



|   |  |                                   |
|---|--|-----------------------------------|
|   | Centurion House, 129 Deansgate,<br>Manchester, M3 3WR<br>Tel: 0161 830 2172<br>www.i-transport.co.uk | <b>KEY</b>                        |
| LAND OFF RUSH GREEN ROAD, LYMM            |  | [AM Peak Matrix] = AM PEAK (PCUs) |
| Appendix K                                |  | [PM Peak Matrix] = PM PEAK (PCUs) |
| Development Traffic Flows (411 Dwellings) |  | Notes:                            |

## **APPENDIX L.** Local Highway Network Plan



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TITLE:  
**LAND OFF RUSHGREEN ROAD, LYMM  
LOCAL NETWORK PLAN**

FIGURE No:  
**APPENDIX L**

# i-Transport

