

CD 6.7

Town and Country Planning Act 1990

Acquisition of Land Act 1981

Local Government (Miscellaneous Provisions) Act 1976

The Highways Act 1980

Inquiry into:

**THE CORNWALL COUNCIL (LANGARTH GARDEN VILLAGE, THREEMILESTONE)
COMPULSORY PURCHASE ORDER 2022**

Proof of Evidence

of

Patrick Valvona

2 January 2024

1. INTRODUCTION

- 1.1 I, Patrick Valvona, am the Operations Director at Services Design Solution (SDS). I hold a BEng (Hons) in Civil Engineering and I am a Chartered Engineer (CEng) and a Fellow of the Institution of Civil Engineers (FICE).
- 1.2 Prior to joining SDS in May 2023, I was a Technical Director at Arcadis. I have over 35 years' experience as a civil engineer, gained through a wide range of infrastructure projects in the UK and overseas.
- 1.3 Within the last 5 years, I have provided director level engineering consultancy roles in support of the delivery of housing schemes in the southwest, both for private and public sector schemes.
- 1.4 In 2019, I was asked to prepare an infrastructure strategy for Langarth Garden Village (**LGV** or **Scheme**) in support of the masterplan design for the Site and the associated planning application. I was subsequently retained as Programme Manager for the Technical Infrastructure Programme for Langarth Garden Village. I held this position until May 2023.

Terminology

- 1.5 References to the core documents within my proof of evidence are made by the abbreviation, for example, "CD1.1". Specific abbreviations are noted in the text on first use and these abbreviations are also set out in the Glossary (**CD 6.17**). The proofs of evidence of other witnesses are referred to by the name of the author.

2. SCOPE OF EVIDENCE

- 2.1 My proof of evidence addresses the following policy tests in the CPO Guidance (**CD 5.4**):
 - 2.1.1 Whether the Council has a clear intention of how the land acquired by the CPO is to be used (paragraph 13); and
 - 2.1.2 Whether there are any physical or legal impediments to implementation of the Scheme, including the programming of any required infrastructure works (paragraph 15).
- 2.2 My evidence also responds to the objections to the CPO insofar as they relate to matters concerning drainage and utilities requirements for the Scheme.
- 2.3 The structure of my proof of evidence is as follows:
 - 2.3.1 The approach taken to the assessment of the drainage and utilities requirements for the Scheme.
 - 2.3.2 The development of the strategy and a description of the drainage and utilities provision for the Scheme.
 - 2.3.3 A description of the programme and delivery strategy for utilities and drainage for the Scheme and how this relates to the test at paragraph 15 of the CPO Guidance.
 - 2.3.4 Explanation of the land requirements for construction and operation of the drainage and utilities strategy for the Scheme and how this relates to the test at paragraph 13 of the CPO Guidance.
 - 2.3.5 Response to objections.
 - 2.3.6 Summary and conclusion, based on the evidence provided.

- 2.4 As part of the development of the surface water drainage strategy for LGV, I worked closely with my colleague Renuka Gunasekara, Technical Director with Arcadis, who was responsible for the initial surface water drainage strategy, Flood Risk Assessment (**FRA**) and Sustainable Drainage Strategy (**SuDS**) for LGV. The FRA submitted with the Masterplan planning application is included within the Core Documents as reference **CD 3.5**.
- 2.5 I also refer to the Utilities and Drainage Strategy, included as reference **CD 3.6** within the Core Documents, which was prepared by various members of the Arcadis engineering team under my direction. This report was submitted as part of the hybrid planning application for the LGV Scheme.
- 2.6 I have reviewed and understand the findings of these reports and make reference to these findings in my evidence.
- 2.7 These two documents provide detailed information of the proposed utilities and drainage provision for the LGV Scheme, as part of the planning submission which was approved in April 2022 (the **Hybrid Planning Permission – CD 3.1**). It should be noted that separate engineering and drainage details for the Northern Access Road (**NAR**) were submitted by Cormac at the same time as part of the detailed element of the Hybrid Planning Permission for the Scheme.
- 2.8 My evidence should be considered and read alongside the full evidence prepared by and on behalf of the Council and in particular:
- 2.8.1 Mr Gavin Smith – Planning (Local Planning Authority) (**CD 6.3**)
- 2.8.2 Mr Terry Grove-White - Planning (Applicant) (**CD 6.5**)
- 2.8.3 Mr Tim Wood – Highways and Transport (**CD 6.9**).
- 3. APPROACH TO ASSESSING THE DRAINAGE AND UTILITIES REQUIREMENTS FOR THE SCHEME**
- 3.1 Arcadis was initially engaged in 2019 to prepare a utilities and drainage strategy for Langarth Garden Village, to be developed in conjunction with the masterplan design for the Scheme, being prepared by architect firm AHR.
- 3.2 It was recognised at an early stage of the masterplanning process that there was no overall strategy for the provision of key utilities and drainage infrastructure within the previous planning applications. Each developer had to provide their own solution for their land parcels, with the result that there were no economies of scale or integration gains to be had through combining utilities provision in a strategic way.
- 3.3 By undertaking the utilities and drainage strategy in parallel with the LGV masterplan design, it was integrated and therefore much easier to align it with the strategic aims of LGV and to identify land areas required for the infrastructure outside of the development plot boundaries. By working closely with AHR from the outset, it enabled utilities and drainage systems to be designed for the entire LGV masterplan area, and not individual developer landholdings, thereby making best use of topography, ground infiltration and the Northern Access Road for the main utilities spine.
- 3.4 A key objective of the utilities strategy was to facilitate alignment of LGV with the Council's net zero carbon pledge. This meant avoiding fossil fuels (natural gas) and providing a sufficiently resilient local supply and grid for electrification of heating and for electric vehicles. The strategy also allowed for potential geothermal district heating, which is undergoing feasibility assessment. These Council-led changes and coordinated sustainable outcomes were a significant departure from the more traditional approaches within the existing developer proposals.

4. DEVELOPMENT OF THE DRAINAGE AND UTILITIES STRATEGY

- 4.1 The Langarth Garden Village Utilities and Drainage Strategy (**CD 3.6**) was developed over a period of 20 months, starting in March 2019. During this period, regular input was sought from Cornwall Council, existing developers, regulators and other stakeholder groups, including:
- 4.1.1 Cornwall Council's Strategic Planning Committee;
 - 4.1.2 Cornwall Council's Lead Local Flood Authority team;
 - 4.1.3 Langarth Stakeholder Panel;
 - 4.1.4 The Environment Agency;
 - 4.1.5 South West Water (**SWW**);
 - 4.1.6 British Telecom;
 - 4.1.7 Western Power (now National Grid);
 - 4.1.8 Inox;
 - 4.1.9 Walker Developments (as owner of part of the Site); and,
 - 4.1.10 Stadium for Cornwall.
- 4.2 The strategy considered the utilities and drainage requirements for LGV as a whole. It was developed in parallel with the LGV masterplan design, to ensure that sufficient space would be provided for the networks, without impacting on development plot areas. This was an integrated, iterative and consultative process.
- 4.3 Further consultation was undertaken with the Strategic Planning Committee, Kenwyn Parish and Truro City Councils in September 2020. A copy of the materials used in the engagement, which includes an overview of the initial utilities and drainage strategy, is included in **Appendix PV1** to my proof of evidence. The materials also incorporated representations from the Environment Agency and SWW in respect of flood risk and foul sewerage provision respectively, which were accepted by the planning committee and which supported the strategy being proposed for surface water and foul drainage.
- 4.4 Where possible, the Northern Access Road was used as the primary route or "spine" for utilities. However, because of the sloping topography of the Site, this was not possible for the gravity sewers or surface water drainage. Instead, routes were selected which minimised impact on development plot areas and followed natural falls and valley features, which generally run from south to north across the Site.
- 4.5 For surface water drainage, early hydraulic modelling was undertaken to ensure that the LGV masterplan design allowed sufficient space for infiltration features, conveyance features and attenuation storage on site. This was part of the overall sustainable drainage strategy for the Site, and to ensure that the LGV masterplan design was "making space for water".
- 4.6 Prior to the Council's land purchases (see paragraph 5.3 of the proof of evidence of Mr Phil Mason with regard to the original land ownership position - **CD 6.1**), the previous separate planning applications presented little detail on surface drainage strategies, with no overall strategic or integrated approach. This would have presented several challenges for surface water management and disposal, given that the ultimate disposal point for LGV is the stream which runs along the northern boundary of the Site. For example:

- 4.6.1 Land held by a developer which was not immediately adjacent to the northern boundary stream would need to have rights to lay pipes or channels across third party land, either through negotiation or through surface water sewer requisitions.
- 4.6.2 Attenuation features, such as ponds and infiltration basins, would be required for each developer on their own land, which would have been inefficient and would not have made best use of land or topography for the whole of the Site.
- 4.6.3 To overcome topographical and geotechnical constraints on steep sites, it is likely that surface water management proposals would have required more use of buried crates and pipes, which are the least desired solutions for SuDS systems.
- 4.7 Similarly, with power, water and telecoms, each developer would have been putting in place their own infrastructure to suit their needs, resulting in duplication and additional costs. For example, both Inox¹ and Walker Developments² were proposing to have their own Primary Sub-stations to serve their land parcels, rather than a single substation, as currently proposed.
- 4.8 In summary, the Utilities and Drainage strategy for the LGV Scheme (**CD 3.6**) proposes:
 - 4.8.1 Making best use of the Northern Access Road as a “spine” for the strategic power and telecoms network, minimising land-take and creating an accessible integrated infrastructure corridor.
 - 4.8.2 Considering the drainage area as a whole, making best use of good infiltration on the higher ground to the south of the NAR and using attenuation features (ponds and basins) at the northern edge of the Site where infiltration is poor.
 - 4.8.3 Providing a new “Energy Centre” at the centre of the Site on Council owned land, comprising a single 24MVA primary substation, sized to serve the entire LGV, with capacity to support the Royal Cornwall Hospital to the east.
 - 4.8.4 Future provision (2027-28) for critical grid reinforcements between the Energy Centre and the main National Grid substation at Shortlanesend.
 - 4.8.5 3 phase local networks for all household connections to cater for increased electrical demands due to decarbonisation and rooftop solar export.
 - 4.8.6 Future provision for battery storage and solar canopies over the Park & Ride.
 - 4.8.7 Provision for geothermal / low carbon district heating for LGV and potentially for the hospital.
 - 4.8.8 Providing a single solution for foul sewerage, with flows being collected by gravity and pumped off-site to SWW’s upgraded Newham Wastewater Treatment Plant, some 4km ESE of LGV.
 - 4.8.9 Providing a strategic phased approach to water supply by identifying the locations for future networks expansions as LGV grows.

5. NO IMPEDIMENTS TO DELIVERY – DRAINAGE AND UTILITIES INFRASTRUCTURE

- 5.1 The programme for the delivery of utilities and drainage for LGV is ongoing, with a focus on enabling all critical infrastructure to be ready for first house connections for Phase 1 in 2026. Activities underway at present are:

¹ Former owner and previous developer of land to the north and west of the Park & Ride – land acquired by agreement by the Council between March 2019 and July 2021. Appendix PV4 shows the extent of land previously owned by Inox.

² Part owner and proposed developer of land to the east of the Park & Ride. See Appendix PV4 which shows land being developed by Walker Developments.

- 5.1.1 Detailed design of rising main to connect Langarth sewage pumping stations to take flow eventually to Newham Sewage Treatment Works.
- 5.1.2 Completion of the Energy Centre (started in 2021).
- 5.1.3 NAR sewer and drainage crossings (completed).
- 5.1.4 Phase 1 district heating network design.
- 5.2 Activities planned for January 2024 onwards:
 - 5.2.1 Procurement and construction of the trunk sewer connecting Phase 1.
 - 5.2.2 Completion of detailed design and construction of the sewage pumping stations and rising main by SWW.
 - 5.2.3 Phase 1 SuDS and ponds, to be constructed mid-2024, with the contract already in place.
 - 5.2.4 Phase 1 district heating network construction.
 - 5.2.5 11kV and LV power spine within the NAR, with construction currently underway.
 - 5.2.6 Telecoms ducting within the NAR.
- 5.3 Planning permission for the Energy Centre was granted in January 2021 (**CD 3.13**) and all pre-commencement conditions have been discharged. Changes have been made to the design of the external wall, which have been agreed with the local planning authority. Completion and energisation is due mid-2024.
- 5.4 Planning permission for the sewage pumping stations was approved earlier in 2023 (**CD 3.18** and **CD 3.19**). These are being delivered by SWW as part of their sewer requisition contract with Cornwall Council.
- 5.5 Planning applications for the Phase 1 SuDS and heat networks have been submitted as part of reserved matters application PA23/06512, with determination expected in January 2024.
- 5.6 Initial trunk mains have already been laid as part of the construction of the Interim Link Road in 2020/21. This is part of the Phase 1 water requisition contract with SWW. No planning permission is required (permitted development).
- 5.7 Ducting and power cables within the NAR come under the Hybrid Planning Permission which provides the detailed permission for the NAR (**CD 3.1**). Ducting is being installed by CORMAC as part of the NAR contract, power cables are being installed by UK Power Solutions, under contract with Cornwall Council.
- 5.8 Based on the above analysis, and in accordance with paragraph 15 of the CPO Guidance (**CD 5.4**) I am satisfied that that I cannot envisage any drainage or utilities infrastructure related impediments to the delivery of the Scheme.
- 6. THE NEED FOR THE LAND INCLUDED IN THE CPO**
 - 6.1 As can be seen from the Utilities and Drainage Strategy (**CD 3.6**) and Flood Risk Assessment (**CD 3.5**) documents, the utilities and drainage networks for LGV are extensive and cover numerous areas which fall outside the current ownership of Cornwall Council.
 - 6.2 These networks have been designed where possible to be within public highway (e.g., the new Northern Access Road and existing road networks) or away from developable areas and outside the LGV development parcel boundaries.

- 6.3 Where necessary, new rights are being sought to facilitate surface water drainage discharge, or land acquisition to provide corridors for strategic utilities infrastructure.
- 6.4 In limited areas, the CPO seeks to secure land to ensure that there is sufficient space for utilities and drainage to provide the necessary interconnectivity as part of the site-wide strategy for LGV. This is particularly important for strategic infrastructure where there are limited or no rights by statutory undertakers to cross third-party land, such as is the case for SuDS features and district heating.
- 6.5 The table below provides a summary of the plot numbers as shown on the CPO Map (**CD 4.2**):

Plot numbers (as shown on CPO Map)	Proposed use of land and/or reason for inclusion in CPO
Plots 6, 7, 166 - 180, 186 - 188, 305, 330, 375, 505, 510, 520 - 524, and 581 – 583.	New rights required to facilitate surface drainage. This is to enable new surface water pipework and outfalls to discharge to the stream to the north of the site, replacing the existing field drainage outfalls where they exist.
Plots 5, 75, 165, 181, 185, 190, 305, 330, 510, 520, 565, 580.	Land required to deliver the Bosvisack corridor ³ which will include the non-motorised users track (strategic valley cycle route) where possible, over the route of the gravity foul trunk sewer and around the surface water attenuation ponds. This route will also facilitate interconnecting pipework for the proposed water attenuation ponds.
Plots 590 and 592	Land required to provide connectivity and continuity of utilities and SuDS as part of the access road works from the NAR to the Govers area.
Plots 585-600, and 620.	Land required for the delivery of the NAR and access to Govers, which includes routes for utilities, drainage, district heat network pipes and other essential underground services for LGV.
Plots 190 - 205, 225, 230 - 260, and 630.	Land required for the delivery of the Scheme being unregistered private road in unknown ownership. Existing roads will be used where possible to route utilities, drainage, district heat network pipes and other essential underground services for LGV.
Plots 350-365, 375-410, 435--505, 525-530,550-575, 610-618.	New Rights required in existing public highway and footpath to facilitate new utilities, drainage, district heat network pipes and other essential underground services for LGV, as well as undergrounding existing overhead high voltage power cables

- 6.6 Based on my above analysis, and in accordance with paragraph 13 of the CPO Guidance, I am satisfied that the Council has a clear understanding of the purpose to which it will put any land interests acquired pursuant to the CPO for the purposes of drainage and utilities infrastructure.

7. OBJECTIONS TO THE ORDER

- 7.1 In this section of my proof of evidence I consider any objections to either the CPO or the SRO that are relevant to my area of knowledge and expertise.

³ The Bosvisack Corridor is shown in Figure 31 of Appendix PM2 of the proof of evidence of Mr Phil Mason - **CD 6.1**

- 7.2 There were two objections to the CPO relevant to the scope of my evidence.
- 7.2.1 **Objection by AR Treseder, PM Treseder, and C Treseder:** This objection has been withdrawn by the objector and is therefore not considered further in my proof of evidence.
- 7.2.2 **Objection by - Walker Developments Ltd and associated companies:** This objection has been withdrawn by the objectord and is therefore not considered further in my proof of evidence.

8. CONCLUSION

- 8.1 This Proof of Evidence describes the proposals for drainage and utilities to serve Langarth Garden Village.
- 8.2 It sets out the rational for the strategies which have been adopted, and the design and planning processes that have been undertaken leading up to the CPO.
- 8.3 In terms of applying policy tests:
- 8.3.1 I have set out how the Council intends to use the land that has been identified within CPO for the provision of drainage and utilities infrastructure required for the Scheme (paragraph 15 of the CPO Guidance); and,
- 8.3.2 I have set out, to the best of my knowledge, the intentions and programme for the Council to deliver the utilities and infrastructure requirements for LGV, avoiding physical or legal impediments to implementation of the Scheme (paragraph 13 of the CPO Guidance).
- 8.4 I have also identified where the Council has aimed to minimise the use of CPO powers through design and consultation during the development of the drainage and utilities strategies.
- 8.5 Having been central to the delivery of the utilities strategy and also the Programme Manager for delivery of the strategic infrastructure programme from 2020 until May 2023, I have had a clear view of the evolution of the Scheme and the role that Cornwall Council has held in delivering an integrated utilities and drainage masterplan for LGV.
- 8.6 The strategy has avoided the use of third-party land where possible, making best use of topography, the NAR route and existing public highways for utilities.
- 8.7 Where necessary, the CPO aims to provide certainty over rights for below ground utilities, and to acquire land only when other routes for utilities have not been possible, due to topography or other constraints.
- 8.8 I have set out the work that has been done to date and planned work that will enable LGV to have utilities and drainage ready in time for first household occupation in 2026.
- 8.9 I have confirmed that there are no remaining objections to the CPO relating to drainage and utilities.

9. STATEMENT OF TRUTH

- 9.1 I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

A handwritten signature in blue ink, appearing to read 'Patrick Valvona', with a stylized flourish at the end.

Patrick Valvona BEng CEng FICE

2 January 2024