

Hartley Gardens

Infrastructure trigger points assessment

Tendring District Council

Final report

July 2020



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1. Introduction

- 1.1. Navigus Planning was appointed by Tendring District Council in June 2020 to undertake an assessment of key 'trigger points' for the provision of new and/or improved infrastructure to support development at the Hartley Gardens Strategic Allocation Mixed Use (SAMU) site. The purpose of this is to inform an understanding of the viability and deliverability issues related to delivering various scheme options.
- 1.2. In October 2017, the Tendring Infrastructure Delivery Plan (IDP) was published. This included the assessment of infrastructure needs for the Hartley Gardens site. In June 2019 an IDP update was published which again included an updated assessment of the site.
- 1.3. The evidence in the October 2017 IDP and June 2019 IDP Update is used as the basis for this trigger points assessment. This has been supplemented by information in the resolution to grant planning permission for development at Rouses Farm, Clacton (appl. ref. 17/01229/OUT). This proposal, for 950 dwellings (540 over the plan period), is on a site proposed for allocation in the draft Tendring Local Plan (SAMU4) adjacent to the Hartley Gardens site. As such, there will be certain elements of shared infrastructure but also it provides the most suitable proxy for contribution levels where more robust information is not available. This is particularly the case for contributions such as health and public transport.
- 1.4. A number of items are not covered. The reason for this is that the nature of the information collected from the relevant statutory body to inform the assessment was in a form whereby it is not possible to identify a specific infrastructure requirement and/or cost, therefore it is not possible to identify whether its delivery will represent a trigger point in the delivery of the overall scheme.
- 1.5. The tested phasing plan for the Hartley Gardens site, as required by the client, is as shown in Table 1.

Table 1: Phasing of development tested in Trigger Points assessment

No. of dwellings	Plan period															
	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033			
SAMU2: Hartley Gardens	0	0	0	0	0	30	30	30	60	60	60	60	60			
No. of dwellings	Post plan period															
	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042	2042/ 2043	2043/ 2044	2044/ 2045	2045/ 46	2046/ 47	2047/ 48	
SAMU2: Hartley Gardens	90	90	90	90	90	90	90	90	90	90	90	90	90	90	50	

- 1.6. Table 1 shows that, for the Hartley Gardens site, 390 dwellings are expected to be delivered during the plan period to 2032/33, with a further 1,310 dwellings delivered beyond the plan period. In total, the site is expected to deliver approximately 1,700 dwellings. It should be noted that, at the time of the 2019 IDP Update, the number of dwellings expected to be delivered during the plan period was higher, at 630 homes. For some of the phasing of costs, this change has required an amendment to the scale of contributions, particularly at the start of the plan period.

2. Infrastructure assessment

- 1.7. The following is a summary of the infrastructure needs identified in the October 2017 Tendring IDP and June 2019 Tendring IDP Update. This has been updated, where necessary to reflect the lower number of dwellings expected to be delivered during the plan period to 2032/33.

Education

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Early Years & Childcare		
Plan period	Land for 56-place nursery as part of 2FE primary school provision	On commencement of development
Post-plan period	56-place nursery costing £1,180,000	After 700 dwgs
Primary		
Plan period	Land for 1 new 2FE primary school with 56-place nursery, plus contributions towards education provision costing £2,265,714.	Land on commencement of development. 50:50 split of contributions after 100 and 300 dwgs
Post-plan period	Contributions towards further primary school places costing £7,604,286.	After 700 & 1,400 dwgs (50:50 split)
Secondary		
Plan period	Contributions towards further secondary school places costing £1,677,619	50:50 split of contributions after 100 and 300 dwgs
Post-plan period	Contributions towards further secondary school places costing £5,632,381	After 700 & 1,400 dwgs (50:50 split)

- 1.8. It should note noted that the precise trigger point for the new primary school (i.e. when it needs to be built and then open) will depend on a number of factors, including when the new primary school at Rouses Farm is opened and pupil numbers across Clacton schools at that time. A plan, monitor and manage approach is being taken.

Health

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
	Expansion of existing practices or potentially, as a comprehensive solution, a new-build facility. Costs not identified in IDP, so a contribution of £400/dwelling assumed, which is based on the contributions proposed per dwelling for Rouses Farm development (17/01229/OUT). The Rouses Farm development also provides land for a new-build facility and it is assumed this is sufficient capital infrastructure to address the needs from both Rouses Farm and Hartley Gardens (therefore only financial contributions are required from development at Hartley Gardens).	
Plan period	Contributions totalling £175,500	On commencement of development
Post-plan period	Contributions totalling £589,500	After 500 dwgs

Transport

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Link Road		
Plan period	Link road needed early in development of site costing £8,372,000 (developer identified cost of £5,980,000 plus 40% contingency which assumes it would be procured by the public sector)	1/3 on commencement of development 1/3 after 100 dwgs 1/3 after 200 dwgs
Post-plan period	No needs	
Cycling and walking		
Plan period	No specific needs identified so contributions totalling £123,810 assumed to make improvements	On commencement of development
Post-plan period	No specific needs identified so contributions totalling £616,190 assumed to make improvements	After 1,000 & 1,500 dwgs (50:50 split)
Bus infrastructure		
Plan period	No specific needs identified so contributions totalling £205,140 assumed to make improvements. This is based on the contributions proposed per dwelling for Rouses Farm development (17/01229/OUT).	After 200 dwgs
Post-plan period	No specific needs identified so contributions totalling £689,060 assumed to make improvements. This is based on the contributions proposed per dwelling for Rouses Farm development (17/01229/OUT).	1/3 after 500 dwgs 1/3 after 1,000 dwgs 1/3 after 1,500 dwgs

- 1.9. Since the assessment undertaken for the 2017 IDP, the evidence for the link road has not been advanced. As it presently stands therefore, the evidence base still requires substantial improvement in order to understand the need for and cost of the link road (including its alignment and specification) and when this need is triggered. With the reduced number of dwellings required during the plan period (390 dwellings), any need prior to completion of these units is less certain and the attendant need for more robust evidence even greater.

- 1.10. Beyond the link road, no other highway transport improvements have been identified, either on- or off-site. This is a gap in the evidence that should be addressed alongside further work on the need for the link road.
- 1.11. Equally, the costs allowed for improvements to cycling, walking and bus infrastructure do not relate to any specifically identified schemes. In reality, such costs can be significant, particularly where there are needed to mitigate critical strategic transport requirements. This should be addressed as a priority matter.

Emergency services

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Plan period	No specific needs identified so contributions totalling £105,981 assumed to make improvements	After 390 dwgs
Post-plan period	No specific needs identified so contributions totalling £355,987 assumed to make improvements	38% after 900 dwgs 38% after 1,400 dwgs 24% after 1,700 dwgs

Waste

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Plan period	£218,000 contribution towards improvements to Rush Green Road RCHW	After 300 dwgs
Post-plan period	No needs	

Social and Community

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Libraries		
Plan period	Contributions towards provision costing £81,120	After 400 dwgs
Post-plan period	Contributions towards provision costing £126,880	After 1,000 dwgs
Allotments		
Plan period	0.21ha of allotment provision costing £20,800 (circa 15 plots)	After 400 dwgs
Post-plan period	0.67ha of allotment provision costing £67,600 (circa 50 plots)	After 1,200 dwgs
Community Centres		
Plan period	176m ² of space, equivalent to 1 small community centre costing £228,800	After 300 dwgs
Post-plan period	572m ² of space, equivalent to 1 large community centre costing £743,600	After 1,500 dwgs
Indoor sports facilities		
Plan period	Expansion of new small community centre provision to allow sports use costing £316,800	After 300 dwgs
Post-plan period	Expansion of new large community centre provision to allow sports use costing £1,029,600	After 1,500 dwgs
Children's play and youth		
Plan period	Provision of 1 LEAP plus allowance for maintenance, costing £96,576	After 100 dwgs

Period	Summary of need identified in IDP work (amended where necessary to reflect amended trajectory)	Trigger point
Post-plan period	Provision of 1 LEAP plus allowance for maintenance, costing £223,872	After 800 dwgs
	Provision of 1 NEAP and 1 MUGA plus allowance for maintenance, costing £378,872	After 1,400 dwgs
Artificial sports pitches		
Plan period	Contributions towards new provision costing £98,386	After 300 dwgs
Post-plan period	Contributions towards new provision costing £330,477	After 1,300 dwgs
Grass sports pitches		
Plan period	Contributions towards new provision costing £14,359	After 400 dwgs
Post-plan period	Contributions towards new provision costing £48,232	After 300 dwgs

- 1.12. In reality, the need for one small and one large community centre, both potentially including indoor sports provision, would be an inefficient way to deliver such infrastructure. It would be more efficient to develop a single facility co-located with the new primary school as part of a main community hub. Such a hub may also incorporate the required sports pitches, play areas and youth provision.

Other items

- 1.13. It is important to make clear that the items assessed so far in this section is not an exhaustive list of what infrastructure is needed to support the growth proposed at Hartley Gardens. There are a number of other items which were considered in the Infrastructure Assessment but did not identify an additional cost to the developer (outside of standard secondary allowances) or did not identify a specific requirement to which a cost could be assigned. These are addressed below

Utilities

- 1.14. At the present time there is a lack of evidence to identify specific utilities costs that would reflect a site-wide strategic approach to addressing these matters. In particular, there is insufficient capacity for the treatment of waste water in the area; the issue of when upgrades to the water recycling centre will be undertaken, at what cost and what costs will be expected to be borne by the development are unknown. Also unknown are the nature of the strategic connections to the waste water network and associated site-wide infrastructure requirements to support this.
- 1.15. Drinking water is also a known constraint and further work must be done to understand the extent of costs that should be borne by the developer.

Surface water

- 1.16. The strategic drainage requirements, land take, specification and cost will need identifying as part of further masterplanning work which is required.

Noise and air quality

- 1.17. Visual, noise and air quality attenuation will be required as part of the delivery of the link road. This would be achieved through strategic landscaping and would be a cost to the development. The land take, specification and cost will need identifying as part of further masterplanning work which is required.

Green infrastructure

- 1.18. Based on experience of strategic sites elsewhere, it would typically be expected that between 20% and 40% of the site area would be given over to green infrastructure. For Hartley Gardens that would represent between 14 and 27 hectares of green infrastructure space in total. The IDP Update 2019 identified a total policy requirement for 5.87 hectares of amenity greenspace but did not assess other needs. Therefore the identified amenity greenspace does not represent the total requirement. If Hartley Gardens were to provide

parks and gardens and natural and semi-natural greenspaces in line with the standards required by Publication Draft Local Plan Policy HP5, then this would require the following additional green infrastructure space:

- Parks and gardens – 0.46 hectares
- Natural and semi-natural greenspace – 13.68 hectares

- 1.19. The further 14.14 hectares of such space raises the overall green infrastructure requirement to 20 hectares which represents just under 30% of the site area. The overall specification and cost of such provision will need identifying as part of further masterplanning work which is required.
- 1.20. The IDP work was undertaken prior to the introduction in national planning policy of the requirement for biodiversity net gain – at least 10% for a site of this nature. The potential need for targeted improvements to infrastructure – green infrastructure but also potentially a number of other types of infrastructure identified – could alter the nature of requirements and costs.

Trigger points analysis

- 1.21. Table 2 summarises the costs and phasing of infrastructure, based on the expected phasing of the housing delivery at Hartley Gardens. This shows that there are significant upfront costs totalling £3.1m before any dwellings have been completed. For growth during the plan period (up to 400 dwellings), the total costs are expected to be £14.0m. In total, the full 1,700-dwelling scheme which would be completed beyond the end of the plan period totals nearly £33.7m of infrastructure costs.
- 1.22. There are two points to note about the figures presented above. Firstly, there are a number of infrastructure items where it is likely that the actual cost infrastructure will be different so all totals presented will increase. One of the most significant of these is health. The costs included in this study represent a placeholder for the cost of medical infrastructure to support growth at Hartley Gardens and also at the Oakwood Park site. Whilst the resolution to grant planning permission for development at Rouses Farm (17/01229/OUT) is on the basis of land for a new medical centre, there is insufficient evidence from the NEECCG to determine whether this will address the needs of the new population at Hartley Gardens, Rouses Farm and Oakwood Park in full (along with existing GP surgeries). Also, as noted in the study, there are a number of items where significantly more work is required to justify the need for infrastructure provision, the cost of such provision and how that will be funded. In particular, issues relating to transport (particularly the link road) and green infrastructure could have a significant impact on the overall requirements, costs and phasing.
- 1.23. The second point to note is that development may not be expected to address all of these costs. The utilities providers have a statutory duty to provide connections to new development and often the cost of infrastructure is absorbed in the standard charges to developers. Therefore it is likely that the cost of providing new drinking water infrastructure will not have to be met directly through developer contributions although this will not be known until more detailed proposals are put forward.

Table 2: Cost summary of infrastructure phasing for Hartley Gardens

Year	2028/29	2029/30	2031/32	2033/34	2034/35	2035/36	2036/37	2037/38	
No. of dwellings completed & costs	On commencement	100	200	300	400	500	600	700	800
Infrastructure item									
EY&C	£0	£0	£0	£0	£0	£0	£0	£1,180,000	£0
Primary education	£0	£1,132,857	£0	£1,132,857	£0	£0	£0	£3,802,143	£0
Secondary education	£0	£838,810	£0	£838,810	£0	£0	£0	£2,816,190	£0
Health	£156,000	£0	£0	£0	£0	£524,000	£0	£0	£0
Link road	£2,790,667	£2,790,667	£2,790,667	£0	£0	£0	£0	£0	£0
Cycling and walking	£123,810	£0	£0	£0	£0	£76,190	£0	£0	£0
Bus infrastructure	£0	£0	£205,140	£0	£0	£229,687	£0	£0	£0
Police	£0	£0	£0	£0	£105,981	£0	£0	£0	£0
Waste	£0	£0	£0	£218,000	£0	£0	£0	£0	£0
Libraries	£0	£0	£0	£0	£81,120	£0	£0	£0	£0
Allotments	£0	£0	£0	£0	£20,800	£0	£0	£0	£0
Community centres	£0	£0	£0	£228,800	£0	£0	£0	£0	£0
Indoor sports	£0	£0	£0	£316,800	£0	£0	£0	£0	£0
Children's play & youth	£0	£96,576	£0	£0	£0	£0	£0	£0	£223,872
Artificial sports pitches	£0	£0	£0	£98,386	£0	£0	£0	£0	£0
Grass rugby pitches	£0	£0	£0	£0	£14,359	£0	£0	£0	£0
Total infrastructure cost/100 dwgs	£3,070,476	£4,858,909	£2,995,807	£2,833,653	£222,260	£829,877	£0	£7,798,333	£223,872
Cumulative infrastructure cost	£3,070,476	£7,929,386	£10,925,192	£13,758,845	£13,981,105	£14,810,982	£14,810,982	£22,609,316	£22,833,188
Ave. cum. cost per dwg completed	n/a	£79,294	£54,626	£45,863	£34,953	£29,622	£24,685	£32,299	£28,541

Year...cont...	2038/39	2039/40	2040/41	2041/42	2043/44	2044/45	2045/46	2046/47	2047/48
No. of dwellings completed & costs	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700
Infrastructure item									
EY&C	£0	£0	£0	£0	£0	£0	£0	£0	£0
Primary education	£0	£0	£0	£0	£0	£3,802,143	£0	£0	£0
Secondary education	£0	£0	£0	£2,816,190	£0	£0	£0	£0	£0
Health	£0	£0	£0	£0	£0	£0	£0	£0	£0
Link road	£0	£0	£0	£0	£0	£0	£0	£0	£0
Cycling and walking	£0	£270,000	£0	£0	£0	£0	£270,000	£0	£0
Bus infrastructure	£0	£229,687	£0	£0	£0	£0	£229,687	£0	£0
Police	£135,873	£0	£0	£0	£0	£135,873	£0	£0	£84,241
Waste	£0	£0	£0	£0	£0	£0	£0	£0	£0
Libraries	£0	£126,880	£0	£0	£0	£0	£0	£0	£145,600
Allotments	£0	£0	£0	£67,600	£0	£0	£0	£0	£0
Community centres	£0	£0	£0	£0	£0	£0	£743,600	£0	£0
Indoor sports	£0	£0	£0	£0	£0	£0	£1,029,600	£0	£0
Children's play & youth	£0	£0	£0	£0	£0	£378,872	£0	£0	£0
Artificial sports pitches	£0	£0	£0	£0	£330,477	£0	£0	£0	£0
Grass rugby pitches	£0	£0	£0	£48,232	£0	£0	£0	£0	£0
Total infrastructure cost/100 dwgs	£135,873	£626,567	£0	£2,932,022	£330,477	£4,316,888	£2,272,887	£0	£229,841
Cumulative infrastructure cost	£22,969,061	£23,595,627	£23,595,627	£26,527,650	£26,858,127	£31,175,015	£33,447,902	£33,447,902	£33,677,743
Ave. cum. cost per dwg completed	£25,521	£23,596	£21,451	£22,106	£20,660	£22,268	£22,299	£20,905	£19,810




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