2.1 What are the needs of the University of York?

1. This note seeks to address the Inspectors' MIQ and also addresses points raised by the City of York Council and their advisors, Cushman and Wakefield, in response to the earlier evidence [Ref HS/P3/M2/U&C].

The strength and importance of the University of York

2. The University of York is a high-performing Russell Group university with an increasing international reputation. It provides provide an exceptional learning experiences for its students. It is also central to the economy and future of the City

3. Since its foundation in 1963, York's focus on academic excellence has resulted in a strong reputation across the globe:

    a. The most recent Research Excellence Framework (REF) results were published in May 2022. These assessments are critical for future funding for research and for recognition by academics and students alike. The University is now in the Top 10 in the UK for research quality and all of its subjects are ranked in the Top 30 in the UK.

    b. In the Times Higher Education World University Rankings 2020, it was ranked in the Top 40 in the world for Arts and Humanities and in the Top 100 for Social Sciences.

    c. The Faculty of Arts & Humanities is ranked in the Top 100 globally for research excellence.

4. Particular recognition has been given to the environment in which the University supports research through its facilities, mentoring and career development with York rising from 19th to 11th place in this category.

5. The University has grown year-on-year since 1963 both in terms of staff / student numbers and in physical terms. Given its continuing success, there can be no doubt that it will continue to grow for the remainder of the Local Plan period to 2038, and beyond.

6. The students and staff are attracted by the quality of the teaching and research, but also by the high quality of the environment on the two campuses.

7. Over the nine year period 2012/13 (roughly from the start of the lengthy process of developing the draft Local Plan) to 2021/22, growth in student numbers has averaged 4% pa (an increase of around 6,600 in the number of FTE students). Over that same period, FTE staff numbers have increased by 1,300 to 4,440. The University's previous evidence has highlighted the current critically important economic role of the University across the city and sub-region [Ref HS/P2/M3/ED/2 Appendix b)], whose importance is underscored by Government's Levelling Up agenda.

8. Previous evidence has highlighted how, of the 65 hectares consented for development in Campus East, over 80% has been built out since 2007 amounting to 3.5 hectares per annum including the lake. This amounts to **2.6 hectares per annum** on 44.4 hectares if the lake is removed from these calculations [Ref HS/P2/M3/ED/2 §4.1].

9. The strong growth in student numbers, including postgraduates (reflecting the University's research strengths) has outperformed the average for all HEIs (see Table 1 below). The University's growth is clearly linked to the overall change in student numbers but, importantly, has grown independently of the overall change in the student market.

10. The University welcomes the fact that the City of York Council has repeatedly recognised, with in the text of the Local Plan and elsewhere, its critical role in the economy. The University is actively collaborating with the City of York Council and other partners on a number of key regionally important projects including BioYorkshire as part of the recently announced Devolution Deal for York and North Yorkshire.

Table 1: Growth 2012/13 to 2020/21 total student headcount

Level of study	Total %		% pa		UoY growth as % of UK growth
	UK	UoY	UK	UoY	
Total Undergraduate	11%	22%	1.4%	2.3%	198%
Total Postgraduate	39%	48%	4.2%	4.8%	125%
Total	**18%**	**29%**	**2.0%**	**2.9%**	**164%**

Source UoY and HESA. Note: do not have HESA data for 2021/22.

Uncertainty and the need for flexibility

11. Accurately predicting the University's needs until the end of the Local Plan period (2038) is challenging as recognised by all parties. There are uncertainties about the UK and global economy, the student market, fees etc. There are also uncertainties about exactly in what areas the University will grow and in what way. The University is obviously unable to forecast its precise need for space and land to 2038. This was the reason It used growth scenarios in the previous evidence provided by the University in 2018 and then updated in 2019 – ie assessing past expansion and projecting that forwards.

12. The University has also gone and indeed is going through a period of transition and adaptation to the new post-Covid world. This has taken place during the period of development of the new Local Plan and now its Examination. It appointed a new Vice Chancellor in 2019 and launched its new 10 year strategy in 2021. The University has been progressing and developing plans that take forward its 10 year vision. This has culminated in the very recently approved 10 year **Integrated Infrastructure Plan** (IIP) which provides more certainty on the likely space and building needs over the next 6 to 10 years. However, the University is at pains to emphasise that **this is not a precise blueprint** and it will still need to be flexible and to respond to changes and opportunities as they arise.

13. The previous exercises on scenario and future needs planning dated back to 2018, and so were developed in a pre-pandemic, pre-new 10 Year strategy and pre-IIP world. To a very significant degree, these exercises have been overtaken by events and the more recent planning by the University.

14. The University now has a clearer and greater focus on collaboration and related research and less on just student number growth – although this growth remains important to fund its activities and meet strong demand. Collaboration opportunities, linked to the world-class research strengths, are necessarily even harder to forecast and plan for. But the University is now regularly experiencing approaches from blue chip business and other prominent groups wishing to locate on campus to collaborate with the various areas of world beating research expertise in the University.

15. In addition, it is also re-thinking <u>how</u> its current and future spaces are used in a post-Covid and more flexible world. The University is also re-thinking about <u>where</u> different activities are best located across Campus East and Campus West.

16. This means that previous masterplanning exercises and scenarios submitted to the EiP as evidence, although helpful as a starting point for assessing space capacity, are somewhat simplistic and do not reflect current University thinking in terms of scale, nature and location of uses.

17. For instance, the undeveloped eastern part of Campus East is no longer seen as an ideal location for new student villages, rather the focus on new student accommodation is now considered to be better directed to Campus West. As a consequence, some current activities (such as those at the existing Science Park) will be relocated from Campus West to Campus East as opportunities and needs arise.

Future planned needs

18. As noted above, the University is now well advanced in the development of a 6 to 10 year **Integrated Infrastructure Plan** (IIP) that is seeking to invest of the order of £530 million in new accommodation and facilities. This IIP is a key part of the delivery of the University's new 10 year strategy. The IIP was recently approved by the University Council in July 2022, which means that it can provide a sound basis for planning. The great majority of projects in the IIP have funding secured externally or by the University's own resources and so there is financial certainty in their delivery.

19. The key projects in this IIP that have specific space requirements are summarised in Annex A to this note. At this stage the University does not have exact space requirements worked out for all projects in full detail, but the major ones are included in the list. The timing of these projects varies but those shown are expected to be delivered by 2027 in the main. The University has also carried out recently detailed planning of student numbers up to 2026 [summarised in Ref HS/P2/M3/ED/2 Appendix b)]. The current baseline forecasts for student numbers included some but not all of the expected impact of the IIP projects as they pre-dated sign off of the IIP.

20. Broadly, the extra 1,500 bed spaces on campus and extra space off campus planned as part of the IIP are expected to accommodate known student number growth and shifts in the type of students to 2026 or 2027. Similarly the extra teaching space proposed is designed to cater for expected student growth and make up existing shortfalls in staff numbers and space.

21. It terms of space, the University's potential needs over the new Local Plan period to 2038 can be thought of as comprising **three** elements:

    a. The spaces that will be required to deliver the **known projects** and activities that are included in the IIP which runs to the end of the decade (as well as other known projects). There is a reasonable degree of certainty about the great majority these projects, but as noted above the scale, scope and timings may vary.

    b. The space to accommodate **further growth** not accounted for in the IIP and other known projects but within the Local Plan period resulting in further increases in student numbers (and so teaching and accommodation and other space etc). The only way of addressing this element is to use some form of growth scenarios as was done previously (but updated).

    c. The space to accommodate **larger projects** linked to University-Business/Industry interaction around innovation and R&D. The growing success of the University's research makes the likelihood and scale of these projects all the greater. This requirement is particularly hard to predict with certainty. However, without planning for these needs

there is a very significant danger that the University will be unable to host these opportunities and they will be lost to York, the wider region or even the UK.

22. The space needs in terms of sqm GIA in this note and work have been converted to land area requirements (net developable area in hectares) beyond the current two campuses using two steps:

    a. Step 1: the total area of the buildings have been converted to a footprint using a **factor of 31.7%** (so 10,000 sqm GIA is assumed to have as footprint of 3,170 sqm). This is based on earlier work carried out by the University on space planning the rest of Campus East and the potential extension. (It, in effect, assumes average building heights of around three storeys).

    b. Step 2: the footprints are converted to land needed based on the current planning requirement of the planning permission for Campus East for a **development density of 23%.**

Element 1: projects under the Integrated Infrastructure Plan and other planned projects

23. The projects in the IIP are designed in terms of student numbers and residential accommodation to cater for growth to 2026/27 (but not necessarily beyond). The projects are a mix of new build and some re-purposing and refurbishing of existing buildings (on both campuses, but mainly Campus West).

24. The total gross space requirements of all these projects on both campuses is around at least 112,500 sqm gross and 73,000 sqm net (both GIA)[1]. These new developments are planned to be accommodated within the remaining undeveloped plots on Campus East and some intensification of Campus West within its known constraints (see below). The University has completed a high-level space and buildings planning exercise that confirms this (Plans are attached). Indeed the list of projects uses up all the readily available space on Campus East and West by around 2027. The list of projects has two categories:

    a. Projects within the IIP - at total of at least 73,000 sqm gross and 41,000 net GIA (see Annex A Table A1)

    b. Projects being planned for the University because they could occur in the next 5 to 6 year period but not currently in the IIP[2] - a total of around 40,000 sqm GIA (gross and net) (Annex A Table A2).

25. The space requirements for the IIP have been based on a move to much more flexible buildings and ways of working. The IIP gives equal weight to planning physical and digital development, the Pathway to Net Zero and an inclusive community without limits. As part of this work, utilisation data is being collected by deploying occupancy monitoring sensors and urgent work being undertaken to reduce the amount of space occupied by staff and students for academic purposes so as much as possible of the existing estate can be repurposed within the constraints imposed by statutory planning - particularly on Campus West.

[1] These figures currently **exclude** the net additional space required for the expanded School of Business and Society (SBS) on Campus West as these requirements have yet to be finalised

[2] These are primarily the proposed Science Park Extension/Fusion Campus and extra life science buildings. These also include the Science Park relocation which is of course necessary for the proposed redevelopment of Campus West

Element 2: needs beyond known projects in the IIP and elsewhere

26. It is much harder for the University to forecast accurately beyond the next 6 years, other than to say that it is overwhelmingly likely that its past rate of expansion will not come to a grinding halt and that it is extremely likely that growth will continue its previous strong positive path. The IIP covers a period of 6 to 10 years, but focusses primarily on the next 5 years to 2027/8 and the University's most recent overall student forecasting exercise covers the four-year period to 2025/26. However, the University is very confident indeed that it will continue to grow in terms of student and staff beyond 2027 and this will need extra space.

27. It is not however possible to generate precise "forecasts" of need and growth beyond the next 5 to 6 years. The University has therefore updated the previous scenarios exercise to:

    a. Take account of a new starting point (of 2026/27 for student numbers) which reduces some of the uncertainties in projecting to 2038.

    b. Adjust some of the parameters used previously to reflect post-Covid and other factors and the University's ongoing work on managing and re-purposing its estate.

28. The range of growth rates in FTE student numbers it has considered are from a very cautious 1.0% pa up to a much less cautious 4.0% pa. This exercise is shown in Annex B. Previous or forecast growth rates vary depending on the period used. The 10 years up to 2021/22 saw 4% pa growth in FTE student numbers, but the current baseline University projections for the four years to 2025/26 are for 1.4% pa growth. It is noted that Cushman and Wakefield adopted 1.5% pa for purposes of assessing the University's previous evidence. For longer term planning, growth lying in the range 1.5% to 2.0% pa is considered to be a reasonable starting point, as it is all but inconceivable that growth will be less than this range.

29. The extra space needed depends on both the residential and non-residential accommodation required. There were criticisms and observations previously by C&W on the parameters used. The University has updated these key assumptions which now are:

    a. As before, on average, it assumes that it need to find **46.2 bedspaces** for every 100 extra students.

    b. The average space per bedspace is **26.5 sqm GEA** based on advice from the current architects FaulknerBrown and reflects the current mix of the University's students. This space standard is slightly lower than the previous planning assumption (but higher than the figure of 25 sqm suggested by Cushman and Wakefield).

    c. The amount of non-residential space per extra FTE student has been tested based on a range from 12.7 sqm GIA per FTE student (as in the previous exercise[3]), a reduced figure of 8.9 sqm per FTE student and an even lower figure of 7.6 sqm per FTE student. These latter figures represent respectively 30% and up to 40% reductions on the previous planning assumption to reflect greater efficiencies anticipated in the future on new build across parts of the University's estate and some economies of scale as the University grows.

30. This exercise produces a range of extra space needs beyond projects identified in the IIP of 14 to 18 hectares for growth rates of 1.5% to 2.0% pa using the lower/mid space conversion factor.

[3] This broadly aligns with current total space on Campus East and West excluding residential and commercial space in 2021/22 of around an estimated 13.7 sqm GIA per FTE

Table 2: Space beyond IIP and other known projects that might be needed to 2038					
Assumed space standard	Scenario (% pa growth in FTE students)				
	1.0%	1.25%	1.5%	2.0%	4.0%
Higher (sqm GIA)	84,758	102,008	119,688	156,382	322,439
Lower/mid (sqm GIA)	71,816	86,431	101,412	132,502	273,202
Lower (GIA)	67,501	81,239	95,320	124,543	256,790
Higher (hectares)	**11.7**	**14.1**	**16.5**	**21.6**	**44.5**
Lower/mid (hectares)	**9.9**	**11.9**	**14.0**	**18.3**	**37.7**
Lower (hectares)	**9.3**	**11.2**	**13.2**	**17.2**	**35.4**
Note: this excludes collaboration projects and space					

Element 3: potential major collaboration projects and need for collaboration space

31. Over the life of the Local Plan it is very hard to predict with certainty what will be the number and size and scale and specific needs of University led collaboration projects. The University is actively pursuing several ambitious projects and, given the strengths of its research, more are expected to follow. For instance, the University has identified that, if successful in attracting the STEP facility[4], it might need overall around 20,000 sqm GIA[5]. As well as the STEP opportunity, the University is also receiving other very firm interest from potential private sector collaborators around its world-leading **fusion technology**.

32. It have assessed the potential land requirement of a further three areas of activity based on some broad illustrative parameters:

    a. The ambition of the three main partners of **BioYorkshire** is to create of the order of 4,000 extra jobs, most of which will be in and around the City. One of the first phases is the proposed Global Bioeconomy Institute (GBI) of 7,200 sqm (GIA) which is part of the IIP and is supported by the new Devolution Deal. This is expected to house around 150 jobs. Taking a three way split between the three partners this could still mean that of the order of 1,170 FTE jobs might land in the University's campus in addition to the GBI over the Local Plan period. Using a 10 sqm NIA per job[6] this equates to the need for around 13,800 sqm of GIA space or a site of around 1.9 hectares.

    b. With **Robotics and Artificial Intelligence** the University has completed the construction of the Institute for Safe Autonomy (ISA) of around 3,275 sqm GIA. Over 50 organisations contributed to the development of the ISA concept, demonstrating the level of interest in collaborative research in the field of the safety of robotics and connected autonomous systems (RCAS). Once the Initiative is publicly launched, the University will then work with the core partners who have provided support to form a robust Industry Network, to define an initial programme of activities, and to seek to widen the ecosystem. Conservatively, given the market interest in this area of research, there would probably be the need for

[4] Spherical Tokamak for Energy Production or STEP is a UK Atomic Energy Authority (UKAEA) programme that will demonstrate the ability to generate net electricity from fusion. It will also determine how the plant will be maintained through its operational life and prove the potential for the plant to produce its own fuel. The first phase of the programme is to produce a concept design by 2024

[5] Elements are: private sector fusion developer - space demand of around 9,700 sqm for the machine hall, plus 4,000 sqm. for offices (NIA); 2. UKAEA STEP programme - 2 offices each at 2,000 sqm. GIA;. Note: this is shown on the plans as Science Park Expansion

[6] Using HCA employment densities for offices. This may understate the space needed as some activity will be of an incubator/managed workspace type of use

up to three times this space to accommodate larger scale collaborators (around 10,000 sqm in total).

c. Another large area for opportunity is based on the University's strengths in **biosciences** focused on human health (BioYorkshire focusses on agriculture and waste). Included in the IIP are plans to expand teaching and research capacity in the bio-medical research area, including building on its leading research in the vaccine field. This is an area where the University receives significant levels of interest from potential collaborators and businesses. It is likely in the future that the University will seek to develop opportunities for more extensive collaboration that will require space (over and above the Science Park and other facilities that are already full). A conservatively estimated indicative area of 10,000 sqm (GIA) has been included[7].

33. University/Industry collaborations will come in a variety of forms: some involving business embedded in lab space and collaborating with the University in shared facilities; some in Science Park type space where business of a range of sizes share in the benefits of immediate proximity to the University seeking lab space and other business space; and some involving larger scale collaborations that may require space for manufacturing prototyping or other facilities.

34. The University's Bio-Renewals Development Centre (BDC) relocated from York Science Park due to lack of space seven years ago. It is seeing a wide range of enquiries for bio-economy businesses and faces a serious lack of lab space as well as suitable locations for development and pro-typing of advanced manufacturing activities. The BDC is relatively small and effectively full up and there is no extra space at the Dunnington location and it would not be suitable or available as a location for the expansion of the University's collaboration activities. These enquiries are for a mixture of lab space and industrial units and for a variety of sizes of units ranging from c. 120 sqm units up to nearer 400 sqm. Businesses are seeking proximity to the University of York, the BDC facilities and to develop new technologies linked to bio-renewables. There are no locations in York available to house the enquiries at present and businesses are having to seek alternative locations and cannot set up in the York area/sub-region.

35. Taking these three illustrative areas of collaboration together, this could require of the order of **5 hectares of land located on the Campus East extension as a minimum** (see Table 3). These figures are indicative or illustrative only and are not intended as exact forecasts and of course exclude other areas of collaboration that might develop over the next 15 or more years. By the same token, there may not be the space needs suggested for some of these specific projects and activities.

36. To put such a scale of activity into context the current York Science Park is some 13,000 sqm (NIA). Whilst in the draft Local Plan the proposed policy EC1 states that the existing Campus East and the proposed ST27 will "*deliver up to 25ha of B1b knowledge based businesses including research led science park uses*". Making provision for at least 5 hectares of land for collaboration activity (in line with the B1b type of land use) seems both entirely reasonable and somewhat conservative.

[7] This is, for instance, in line with the size of the recently completed Health Innovation Campus at Lancaster University (8,000 sqm)

Table 3: Illustrative assessment of space that <u>might</u> be needed for future collaboration projects and activity		
Future collaboration area	Sqm GIA	Hectares
A Potential extra space for of Fusion Campus – assumed to be located on existing Campus East	20,000	
B Potential extra space for BioYorkshire collaborations	13,765	1.9
C Potential extra space for Robotics and AI collaborations	10,000	1.4
D Potential extra space for Biomedical collaboration	10,000	1.4
Total potential collaboration space beyond space that could be located on existing Campus East (B, C and D)	33,765	4.7
Rounded	**34,000**	**5.0**

37. The City of York Council have previously suggested that the University could deal with such projects on a **case by case basis** (presumably arguing for Green Belt release if needed using the Very Special Circumstance argument in applications). This misunderstands the nature of many opportunities whether driven by private sector or public sector partner collaborations, which require a high degree of locational certainty as to the acceptability of the project from its inception.

38. Thus, in most cases there is a need for **certainty** in pitching for opportunities and **timing** can be critical. For instance as part of the STEP bidding process, bidders have to be able to demonstrate the deliverability of sites and the ability to deliver in often demanding timetables. The University would not be able to put forward the proposed campus extension which currently may or may not be located in the Green Belt as a suitable site or this project and the opportunity would have been lost altogether.

39. The lead in times for projects will vary. However, to be engaged in meaningful discussions the University needs the confidence that it has the space that can accommodate larger scale projects.

Element 4: Flexibility

40. The final need is to have capacity and flexibility to decant and move activities around as buildings are being refurbished and repurposed. Although this has not explicitly been addressed in assessing space needs, it does mean that the tighter are the University's boundaries the harder is it to plan moves, decanting and manage its estate.

Overview of overall space needs to 2038

41. The conclusions of this updated and high level exercise are summarised in Table 4. To make the exercise easier to follow and read It have only illustrated the 1.5% and 2.0% scenarios for student growth to 2038.

42. This exercise would imply land take/need of **1.7 to 2.0 hectares per annum** which is considerably lower than historic take-up rates of 2.6 hectares a year.

43. However, if the University were to see growth of FTE students of 2.0% per annum, which is certainly more than plausible, then the total assessed need on this basis would range from 22.2 to 26.6 hectares (or 2.0 to 2.4 hectares of land per annum).

Table 4: Overall assessment of potential space and land needs for University of York to 2038, based on 1.5% pa and 2.0% pa FTE student growth beyond 2026/27				
Element of need	Sqm GIA		Hectares	
The overall net space on campuses needed to meet the needs of IIP and other UoY growth plans for next 5-6 years (excludes off Campus RAS)	73,300*		n/a	
Growth in student numbers and academic activity beyond 2026/27	*1.5% pa*	*2.0% pa*	*1.5% pa*	*2.0% pa*
Potential need for space to 2038– LOW space per student	95,000	125,000	13.2	17.2
Potential need for space to 2038 – MEDIUM TO LOWER space per student	101,000	133,000	14.0	18.3
Potential need for space to 2038 – HIGHER space per student	120,000	156,000	16.5	21.6
Collaboration capacity or needs				
Total potential collaboration space needs (illustrative)	34,000		5.0	
Total possible needs <u>beyond IIP and other known projects on current Campus East and Campus West</u>	*1.5% pa*	*2.0% pa*	*1.5% pa*	*2.0% pa*
Low space standard	129,000	159,000	18.2	22.2
Lower/medium space standard	**135,000**	**167,000**	**19.0**	**23.3**
Higher space standard	154,000	190,000	21.5	26.6
*Note: *at this stage excludes space planning for the SBS*				

Current space and capacity

44. The needs identified above will need to be met from some redevelopment of Campus West (in net extra space terms), the build out of remaining plots for development on Campus East and from the proposed extension ST27 [plus, if needed, any use of the proposed area of safeguarded land].

45. The work that has been undertaken to assess capacity on exiting Campus East and Campus West is summarised below. This addresses points raised previously by Cushman and Wakefield on behalf of the City of York Council in terms of making full use of existing capacity across Campus East and Campus West.

46. In its planning, University is working in a post-Covid world and reflecting new thinking about how spaces are used for teaching, research, collaboration and other uses. It recognises that there are, potentially, some efficiency gains in its ways of working and use of space. This is already factored into the projects planned as part of the IIP that cover part of the existing estate. Across the rest of its estate the University will of course be seeking to make the most efficient use practicable of existing buildings. This is in practice constrained by the nature of some of the buildings and financial cost of conversion etc.

47. The main areas for efficiency gain relate to office type accommodation (workspace) used by non-academic and, potentially, academic staff. Across its research and teaching spaces, although these will be repurposed, the University does not see overall scope for any significant efficiency gains as it is committed to a strong student experience.

48. Due to space constraints, the University has had to locate some staff in unsuitable locations. For instance, It is having to house the Research, Innovation and Knowledge Exchange (RIKE) team and activities in the Stables block which the University had hoped to close as it is not really suitable accommodation due to lack of natural light and sloping roof spaces. Future efficiency gains will

therefore to some degree allow the University to **re-house** some existing staff presently stuck in unsuitable buildings (and so will not necessarily release extra space or capacity).

49. The University has carried out some initial modelling of the scope for savings related to existing professional, non-academic staff numbers and use of space. Depending on the parameters used this could be of the order of magnitude of 6,000 sqm (net usable space) or around 12,000 sqm GIA.

Campus West

50. The University is seeking, where possible, to redevelop and intensify the use of this Campus West, but this is subject to a number of important constraints. These include planning, heritage (especially Historic England) and ground features. The Campus is to be the focus for extra student housing over the period of the IIP (ie to 2027/8) and for teaching space.

51. The constraints faced by the University are illustrated on the submitted plans and include:

    a. statutory limitations imposed by the protected status of the Heslington conservation area; the registered park and garden; the scheduled ancient monument; the listed buildings and Walmgate Stray, plus existing Green Belt constraints and viewpoints next to the Stray.

    b. existing landscape features, including open space, mature trees and steep gradients.

    c. commercial constraints, as some properties are leased to third party tenants, for example the Yorkshire Water service reservoir east of Heslington Hill water tower.

    d. the dark sky zone necessary to support the Astrocampus.

    e. there are poor [marshy] ground conditions on both east and west campuses which require modern buildings to be built on piled foundations. These foundations have not been designed to take future additional floors by way of vertical extension[8].

    f. The earlier [CLASP] buildings are built to a modular system on a concrete slab, to allow for some differential settlement, although there is evidence of cracking on campus. It is unlikely that adding one or more floors will be acceptable structural engineering solution.

    g. Campus West is built out to the key principles within approved Development Briefs of 1962-1972 and 1999, plus emerging Local Plan policy which imposed a development capacity of 20% footprint including car parks. This was based on a 1992 strategic review of the landscape context of the campus. The policy has been increased to 23% in recent years.

52. The capacity of both existing campuses to accommodate planned projects is shown in Plans appended to the planning statement. The most recent plans would lead to a net increase of usable space on Campus West as a result of redevelopment of older and lower buildings and an increased footprint of around 33,500 sqm (GIA) or an overall 11% increase in the current space on the campus[9]. In addition, there are the two potential developments shown on Plan 06 as sites 01 (Peninsula Redevelopment) and site 02 (Opportunity to Build on Existing Car Park). Both sites are impacted by the wider constraints on Campus West and some specific site constraints such as proximity to adjacent low rise residential development or visual impact in the conservation area.

[8] This issue is exemplified by Lakeside Way along the northern edge of the lake which is surfaced in pavers. Instead of rainwater soaking away through the surface, the water table has come up and loosened the road foundations. This problem and a very frequent bus service, every 7 minutes, has damaged the road to such an extent that it needs to be completely reconstructed.

[9] 289,000 NIA, 296,000 GIA and 328,000 GEA

At this early stage the University considers that a net increase around a further 6,000 sqm GIA might be possible across these two campuses beyond the redevelopment shown on Plans 04 and 05.

Campus East

53. The permitted development area is **very largely developed out**. With recent completions of residential accommodation on the western part of the Campus, the new Institute for Safe Autonomy and the Children's Nursery there is a total of 142,000 sqm (GIA) of floorspace already developed over 54.5 hectares and the capacity for around 50,000 sqm GIA on the current Campus East allocation (based on the most recent space planning exercises[10]).

Campus East Extension – ST27

The University has had a site measurement exercise carried out and the City Council has also remeasured the allocation site (ST27) as shown on the draft Local Plan. The University considers that 20.92 hectares is the accurate measure. As currently proposed in the Local Plan, ST27 provides the University with just 15.3 hectares of developable land once landscape buffers to A64 (4.3 hectares) and land ownership constraints (1.3 hectares) are removed. The capacity of this site based on the parameters used to assess space requirements in this note is around **111,000 sqm GIA**[11]. Note: this is not based on a detailed masterplanning exercise but a high level capacity assessment.

54. In principle, this capacity could be increased by higher buildings or greater plot density if this were acceptable in design, function and planning terms. However, this possibility is not explored in this note.

Other sites

55. The University has recently acquired the Guildhall as a new space for University city/civic society interaction. It is important to note that this does not replace any of the need for space for University/Business collaboration. It is focuses on interaction with local business start-ups in the City, and aims to drive innovation and growth through two new initiatives - The York accelerator and Enterprise Works - as well as strengthen links between the University and its partners in York and beyond.

56. The University is strongly of the view that its strength has been built on its campus approach, quality of place and proximity of facilities. It has no inclination to develop a satellite campus elsewhere, even if there was a suitable candidate site close to its present campuses, due to significant inefficiencies inherent in a dual site university. In any case, as is evidenced from the process of developing the Local Plan, there are simply no other suitable existing sites in York that could accommodate a further expansion of the University. Any other sites would therefore need to be in the Green Belt around York or in neighbouring authorities, when a duty to co-operate would need to be agreed.

[10] This is the 38,537 sqm GIA of space for the five projects identified on the Plans 04 and 05 (sites/buildings 07, 10, 11, 13, and 18), plus an estimated 7,000 GIA that could be developed on Site 3 (Land between ISA and Constantine College) which is 0.98 hectares as shown on Plan 06 (Possible Development Opportunities). Site capacity based on the density parameters used elsewhere in this note

[11] Based on 23% footprint and 32% ratio of footprint to built area

Conclusions on remaining capacity

57. The recent space planning exercise included in the plans supplied indicate that broadly the capacity on existing Campus East and West will be used up by existing planned projects. There may be some residual remaining capacity on these sites and across the existing stock of space as follows:

- Capacity of sites 01, 02 and 03 – around potentially 13,000 sqm GIA
- Possible space savings across existing stock 12,000 sqm GIA
- Total possible extra capacity released, c. 25,000 sqm GIA.

58. It is important to emphasise that it is by **no means certain** that this extra capacity would be available on Campus East and/or Campus West. However, the University has considered the impact of extra space on its future land needs if this capacity were available.

Conclusions on future space needs for the University of York

59. There is a need as an **absolute minimum** to plan for extra space of the order 130,000 sqm to year 2038. This equates to around 18 hectares of land at existing development densities. This is over and above the planned use of the remainder of Campus East and Campus West bar a few potential development sites. This is based on annual growth rates of 1.5% p.a. but using very ambitious and much lower space standard for the future plus a relatively modest allocation of land for a range of potential collaboration activities. This is clearly above the capacity of the current Local Plan proposed Campus East extension (around 110,000 sqm in the 15.3 hectares net developable area) and would provide no flexibility for the University (Table 5).

60. However, on quite plausible growth assumptions of 2.0% pa and a medium space standard, the University needs to plan for around 167,000 sqm of space to the year 2038 or around 23.3 hectares of land at existing development densities. This is well beyond the capacity of the Campus East extension ST27 as proposed in the Plan (Table 5).

Table 5: Total possible UoY needs beyond IIP projects and known projects *NO FURTHER CAPACITY FOUND ON CAMPUS EAST OR WEST*

Assumptions		Overall extra need (1)		Gap in needs (less ST27 as proposed by CoYC (2)) [hectares of land]
Assumed space standard for future growth	*FTE student growth rate after 2026/27*	Sqm GIA	Hectares of land	
Low space standard	***1.5% pa***	129,000	18.2	2.8
Lower/medium space standard		**135,000**	**19.0**	**3.7**
Higher space standard		154,000	21.5	6.2
Low space standard	***2.0% pa***	159,000	22.2	6.9
Lower/medium space standard		**167,000**	**23.3**	**8.0**
Higher space standard		190,000	26.6	11.3

Notes: (1) assuming no further capacity beyond that shown in Plans 04 and 05 ; (2) assumed to provide 15.3 has net developable area

61. However, the University is, as noted above, already seeking potential further efficiencies in its use of space for non-academic staff activity in particular. It is also exploring the possibility of the re-development of two further sites on Campus West and a further "infill" site on Campus East. As noted earlier, the delivery of this extra capacity is by no means certain. However, Table 6 below shows the consequence on the overall net extra need for space beyond existing Campus East and Campus West under the different overall need assumptions. Key points are:

- Even if the University is able to access the extra capacity then the exercise suggests that the proposed allocation ST27 as proposed in the Plan **would be needed in full** under the lower growth scenario given the margins of error in any forecasting exercise (Table 6).
- Under higher growth rates than 1.5% pa or with greater success in attracting business collaborations and other research related projects (or both), it is **highly likely** there would need to be extra space to accommodate the University's needs in the **proposed adjacent expansion area** that the University is proposing for safeguarding within the Local Plan period.

Table 6: Total possible UoY needs beyond IIP projects and known projects *WITH FURTHER CAPACITY FOUND ON CAMPUS EAST OR WEST*

Assumptions		Overall net extra need [(1)]		Gap in needs (less ST27 as proposed by CoYC [(2)]) [hectares of land]
Assumed space standard for future growth	*FTE student growth rate after 2026/27*	Sqm GIA	Hectares of land	
Low space standard	***1.5% pa***	104,000	14.7	-0.6
Lower/medium space standard		**110,000**	**15.5**	**0.2**
Higher space standard		129,000	18.1	2.7
Low space standard	***2.0% pa***	134,000	18.7	3.4
Lower/medium space standard		**142,000**	**19.8**	**4.5**
Higher space standard		165,000	23.1	7.8

Notes: (1) assuming additional capacity beyond that shown in Plans 04 and 05 and some release of space across the estate totalling 25,000 sqm GIA assumed to be the equivalent of 3.45 hectares at the development densities used in this note; (2) assumed to provide 15.3 has net developable area

Nicol Economics on behalf of the University of York, 31 August 2022

Annex A: Key Projects in the University of York Integrated Infrastructure Plan (IIP)

Table A1: Projects in IIP (ref Plan 04 COMMITTED CAPITAL PROJECTS FORMING PART OF THE INTEGRATED INFRASTRUCTURE PLAN, Projects 01 to 08)				
Element of the IIP	**Area**	**Net increase in buildings**	**Plan Ref**	**Notes**
University square and student centre	5,485	2,697	**01 &0 4**	*Note demolition of Old Environment Building / Security Centre / X-Block and SAAS Building*
New schools				
School of Physics, Engineering and Technology			**02**	
New	5,773	5,773		
Converted	9,840			*Part of Science Park*
	15,613		**03**	
School of Architecture	2,344	-2,446		*Note possible demolition of Wentworth Nucleus [or part of 4,790 sqm]*
School for Business and Society, expansion	TBA		**08**	*Space planning in progress*
Other				
Student Residential Accommodation on campus	39,750	27,309	**05**	*Note demolition of Physics and Engineering Departments. Based on 1,500 bedspaces*
Student Residential Accommodation off campus			N/A	*Joint with UoY St John, likely to be same area. Not included in the total*
Biomedical sciences			**06**	
Biomedical Research Laboratories and Translational Haematology	1,800			*Note possible demolition of Biology A Block (2,335 sqm)*
BSF replacement	750			
Total	2,550	215		
School of Arts and Creative Technologies			**N/A**	*Note this is a conversion project with no expected adjustment to building footprint*
BioYorkshire - Global Bioeconomy Institute	7,051	7,051	**07**	
All of the above	**72,793**	**40,599**		
Of which located on Campus West		33,548		

Table A2: Other planned projects (ref Plan 05, FUTURE PROJECTS 2022 – 2028, Projects 09 to 19)			
Project	**Net increase sqm (GIA)**	**Plan Ref**	**Notes**
Science Park Replacement	10,000	**10**	
Science Park Expansion	20,000	**11**	Mini-Fusion Campus or other
Walled Garden	200	**12**	
National Net Zero Experiment	200	**13**	
Insectary	1,775	**14**	
Fieldwork and Equipment Store	100	**15**	
Indoor Air Quality Research	200	**16**	
Life Sciences	6,000	**17**	
Nursery	1,286	**18**	
Total increase	**39,761**		

Annex B: Extra growth beyond the IIP

Growth scenarios and space needs						
Element of space needed		**Assumed % pa growth in FTE students**				
		1.0%	1.25%	1.5%	2.0%	4.0%
Total FTE students by 2038		25,078	25,770	26,478	27,949	34,604
All extra FTE students 2026/27 to 2037/38*		3,397	4,088	4,797	6,268	12,923
A. Student residential accommodation						
Extra student bedspaces needed on campus		1,570	1,890	2,218	2,897	5,974
Extra student residential space needed (GEA)		41,616	50,085	58,766	76,783	158,316
Footprint Sqm		13,210	15,898	18,654	24,372	50,253
Area needed Has		**5.74**	**6.91**	**8.11**	**10.60**	**21.85**
B. Other space <u>excluding</u> collaboration space						
Higher GIA per student (12.7 sqm GIA per FTE)						
Floor area (GIA)	Sqm	43,142	51,922	60,922	79,599	164,123
Footprint	Sqm	13,694	16,481	19,338	25,266	52,096
Area needed	Has	**5.95**	**7.17**	**8.41**	**10.99**	**22.65**
Lower/mid GIA per student (8.9 sqm GIA per FTE)						
Floor area (GIA)	Sqm	30,200	36,346	42,645	55,719	114,886
Footprint	Sqm	9,586	11,537	13,536	17,686	36,467
Area needed	Has	**4.17**	**5.02**	**5.89**	**7.69**	**15.86**
Low GIA per student (7.6 sqm GIA per FTE)						
Floor area (GIA)	Sqm	25,885	31,153	36,553	47,760	98,474
Footprint	Sqm	8,217	9,889	11,603	15,160	31,258
Area needed	Has	**3.57**	**4.30**	**5.04**	**6.59**	**13.59**
Total extra space needed (A + B)		**Scenario**				
		1.0%	1.25%	1.5%	2.0%	4.0%
Total space (excluding collaboration space)	*Higher (sqm GIA)*	84,758	102,008	119,688	156,382	322,439
	Lower/mid (sqm GIA)	71,816	86,431	101,412	132,502	273,202
	Lower (sqm GIA)	67,501	81,239	95,320	124,543	256,790
	Higher (hectares)	11.7	14.1	16.5	21.6	44.5
	Lower/mid (hectares)	**9.9**	**11.9**	**14.0**	**18.3**	**37.7**
	Lower (hectares)	9.3	11.2	13.2	17.2	35.4
Note: *includes anticipated extra students as a result of School for Business and Society expansion up to 2026 of around 800 FTEs (as these are not included in the UoY baseline student forecasts)						