

Appendix 4

Cranbrook Specific Assessment

1 Introduction

- 1.1 Cranbrook is a new community being built to the East of Exeter. Approximately 3,500 homes currently have planning permission, with a further c.4,000 in draft allocations / expansion areas of the East Devon Local Plan (subject of current planning applications). In addition to this there are additional sites within the allocated expansion areas that are either current planning applications by third parties or which are not identified for development within the current planning applications. Also, Cranbrook may eventually grow beyond its current planned extent. This being the case, it may potentially be the case that Cranbrook will grow to approximately 9,000 homes within the next 20-30 years. It is important to consider how the sports, leisure and recreation needs of the full extent of the town will be catered for now as co-location of facilities and earmarking of land in accessible, central locations is key at this moment in time.
- 1.2 Using the East Devon average household occupancy rate of 2.08 persons per dwelling this would equate to a population of 18,720 people, making Cranbrook one of the largest towns in Devon. This Assessment specifically considers what the pitch requirements would be for a town of 7,500, and 9,000 dwellings and suggest ways that these needs could be met. Whilst developments of 7,500 dwellings and 9,000 dwellings have been assessed here, this is purely indicative. If more or less dwellings are planned / built then the appropriate pitch provision will be worked out accordingly using the same methodology as this report, but the principles discussed and explained here will remain relevant.
- 1.3 It is important to note that whilst the needs of the entire population need to be met, 3,500 homes already have planning permission. This means that in line with the tests for planning obligations as set out in the Community Infrastructure Levy Regulations 2010 (as amended) it is not possible for the future (as yet unpermitted) phases to make up for any shortfall that the permitted phases have not signed up to through planning obligations. This means that in some cases, it may be that alternative funding sources are required to provide the full suite of sports, leisure and recreation facilities at Cranbrook. At the very least, however, future phases must “wash their own face” in terms of meeting the number of pitches that they create demand for whilst also allowing for any shortfall to be provided potentially by other means.

2 Demographics

- 2.1 When trying to assess the likely sports, leisure and recreation demand of a settlement it is important to understand the demographics. A range of factors can have a bearing on the types of activity that a population favours, not least age.
- 2.2 The average household occupancy rate for East Devon is 2.08 persons per dwelling¹. That may on the surface appear to be a reasonable figure to assume for Cranbrook, however a number of factors mean that in fact, Cranbrook is likely to have a younger population and therefore a higher household occupancy rate:
- Higher proportion of social housing compared to most East Devon towns;
 - Brand new settlement with brand new houses likely to draw in young families;
 - Government Help to Buy incentive; and
 - Proximity to Exeter, the M5 and railway links;
- 2.3 These factors increase the likelihood of the population being younger than the average East Devon town and made up primarily of younger families. The provision of sports, leisure and recreation facilities must take notice of this. Taking Cambourne, a new town in Cambridgeshire, as an example of a similar development to Cranbrook, the population demographics were drastically different (younger) to what had been expected and this meant that an extra temporary school had to be built to house the additional children². This highlights the importance of understanding the expected demographics when infrastructure planning for a new settlement and sports leisure and recreation facilities are no different.
- 2.4 Taking the ONS 2012-based Sub National Population projections data for East Devon it is possible to understand the population breakdown of the district as a whole in 2014. The 2012 based population projections below (which were released in May 2014) show that the East Devon population is relatively old. This compared with the fact that the population of Cranbrook might be relatively young means there potentially could be a significant swing between the needs of the East Devon population and the needs of Cranbrook's population. However, there is no data on the same level of detail for the residents of Cranbrook so far. This being the case, this report assesses the need for different types of facility at Cranbrook against the district-wide 2014 population structure and then annually adjusts requirements to take account of the likely younger population.

¹ East Devon Local Plan 2006-2026 Proposed Submission (Publication) Draft (November 2012), p.15

² <http://www.independent.co.uk/life-style/health-and-families/health-news/cambourne-britains-birth-place-1781470.html>

Table 2.1 – ONS population projections for East Devon by age group³

Age Group	2014
0-4	6203
5-9	6579
10-14	6634
15-19	7221
20-24	5578
25-29	5598
30-34	5575
35-39	6022
40-44	8055
45-49	9380
50-54	9342
55-59	9106
60-64	9618
65-69	11441
70-74	8934
75-79	7512
80-84	5965
85+	6602
Total Population	135,373

³ ONS 2012-based Sub National Population Projections (May 2014)

3 Demand

- 3.1 The methodology advocates the use of district wide team generation rates (TGRs) to work out the number of teams “created” by a population and thus the number of different pitches that may be required to meet those demands. The table below shows the teams generated by a development of 4,000 homes (roughly the number of dwellings included in the currently invalid planning applications submitted by the New Community Partners), 7,500 dwellings (the extent of Cranbrook combining extant permissions and allocations), and 9,000 (the potential future extent of Cranbrook should it grow beyond its current planned extent – it is important to consider the fact that Cranbrook will continue to grow for co-location of facilities especially).

Table 3.1 – Teams generated* by different numbers of dwellings using district-wide TGRs

*please note that teams generated are always rounded up

Sport and age groups	% of population in age group	TGR	4,000 dwellings		7,500 dwellings		9,000 dwellings	
			Population in age group	Teams potentially generated*	Population in age group	Teams potentially generated*	Population in age group	Teams potentially generated*
Football – Male 11v11 (16-45 yrs)	14.4%	305	1198	4	2246	8	2696	9
Football – Female 11v11 (16-45 yrs)	14.0%	6314	1165	1	2184	1	2621	1
Football – Youth Male 11v11 (12-15yrs)	2.1%	77	175	3	328	5	393	6
Football – Youth Female 11v11 (12-15yrs)	2.0%	900	166	1	312	1	374	1
Football – Youth Male 9v9 (10-11 yrs)	1.0%	55	83	2	156	3	187	4
Football – Youth Female 9v9 (10-11yrs)	0.9%	0	75	0	140	0	168	0
Mini Soccer 7v7 Mixed (8-9yrs)	1.9%	85	158	2	296	4	356	5
Mini Soccer 5v5 Mixed (6-7 yrs)	2.0%	148	166	2	312	3	374	3
Cricket Open Age Mens (18-55yrs)	19.9%	527	1656	4	3104	6	3725	8
Cricket Open Age Womens (18-55yrs)	20.1%	27180	1672	1	3136	1	3763	1
Cricket Junior (7-18yrs)	12.3%	449	1023	3	1919	5	2303	6
Rugby Union Senior Men (19-45yrs)	12.7%	1717	1057	1	1981	2	2377	2
Rugby Union Senior Women (19-45yrs)	12.4%	16719	1032	1	1934	1	2321	1
Rugby Union Youth Boys (13-18yrs)	3.4%	377	283	1	530	2	636	2
Rugby Union Youth Girls (13-18yrs)	3.2%	856	266	1	499	1	599	1
Rugby Union Mini/Midi Mixed (7-12yrs)	5.8%	340	483	2	905	3	1086	4
Hockey Senior Mens (16-55yrs)	21.1%	4755	1756	1	3292	1	3950	1
Hockey Senior Womens (16-55yrs)	21.2%	5734	1764	1	3307	1	3969	1
Hockey Junior (11-15yrs)	5.0%	1358	416	1	780	1	936	1
TOTAL POPULATION (based on 2.08 persons per dwelling)			8,320		15,600		18,720	

3.2 Using the teams generated in the table above it is possible to understand how many pitches of each type are required to host them. The number of pitches is based on the following assumptions:

- All football and rugby pitches provided are of standard quality;
- All cricket wickets provided are of good quality;
- No team training takes place on the grass pitches;
- Each team plays at home once every fortnight which means each team generates a demand for 0.5 of a match per week;

Table 3.2 – Peak times for different sport teams and age groups

Sport and age group	Mid week	Sat AM	Sat PM	Sun AM	Sun PM
Football (adult mens)			X		
Football (ladies)					X
Football (youth and mini)		X			
Cricket (seniors)			X		
Cricket (juniors)	X				
Rugby (senior mens)			X		
Rugby (youth and mini/midi)				X	
Rugby (vets and ladies)					X
Hockey seniors			X		
Hockey juniors				X	

Table 3.3 – Peak times for different size pitches

Sport and age group	Mid week	Sat AM	Sat PM	Sun AM	Sun PM
Football Adult 11v11			X		
Football Youth 11v11		X			
Football Youth 9v9		X			
Football Mini 7v7		X			
Football Mini 5v5		X			
Cricket			X		
Rugby senior			X		
Rugby mini/midi				X	
Sand-based AGP			X		

4 Football

Table 4.1 – Football pitches required by potential teams generated

Pitch type	Match equivalent sessions per week supported by a “standard” quality pitch	4,000 dwellings				7,500 dwellings				9,000 dwellings			
		Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)	Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)	Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)
Adult 11v11	2	5	2.5	2	2	9	4.5	4	4	10	5	4.5	5
Youth 11v11	2	4	2	1.5	1	6	3	2.5	3	7	3.5	3	3
Youth 9v9	2	2	1	1	1	3	1.5	1.5	2	4	2	2	2
Mini 7v7	4	2	1	1	1	4	2	2	2	5	2.5	2.5	3
Mini 5v5	4	2	1	1	1	3	1.5	1.5	2	3	1.5	1.5	2

4.1 The table above shows that whilst the assumed match equivalent sessions generated per week can be accommodated by a certain number of pitches, once you account for how many games will need to be played per week at the peak time, a higher number of pitches are required.

4.2 For a planning application proposing 4,000 dwellings, the following numbers of football pitches would be required to be provided:

- 2x adult 11v11
- 1x youth 11v11
- 1x youth 9v9
- 1x mini 7v7
- 1x mini 5v5

4.3 For a town of 7,500 dwellings, the following numbers of football pitches are required:

- 4x adult 11v11

- 3x youth 11v11
- 2x youth 9v9
- 2x mini 7v7
- 2x mini 5v5

There would be spare capacity on the adult pitches outside of the peak time (Sat PM) to allow for a mini 7v7 or 5v5 to be overmarked on each half of 2 of the adult pitches.

4.4 For a town of 9,000 dwellings, the following numbers of football pitches are required:

- 5x adult 11v11
- 3x youth 11v11
- 2x youth 9v9
- 3x mini 7v7
- 2x mini 5v5

There would be spare capacity on the adult pitches outside of the peak time (Sat PM) to allow for a mini 7v7 or 5v5 to be overmarked on each half of 2 or 3 of the adult pitches.

4.5 Taking into account the likely different demographic breakdown of the population at Cranbrook to the East Devon average, it will be particularly important to ensure that additional youth and mini provision is made, potentially at the expense of 1 adult pitch, however, as we do not know for sure what that demographic breakdown will be, it is reasonable to provide the above pitches with moveable goals and the flexibility to provide different pitch layouts depending on what teams are actually generated. This means that co-locating a number of pitches (not necessarily overmarking but locating side by side one another and sharing facilities) would be particularly beneficial.

4.6 Creating two football “hubs” containing a range of adult, youth and mini pitches would be the most sustainable way of delivering football pitches at Cranbrook both in terms of flexibility of space to provide the right types of pitches, and in terms of the long term viability of the football clubs which are likely to come into being. More on sports hub clubs is explained in the concluding remarks of this section.

5 Cricket

Table 5.1 – Number of grass cricket wickets required by potential teams generated

Team	Match equivalent sessions per season supported by a “good” quality wicket	4,000 dwellings			7,500 dwellings			9,000 dwellings		
		Teams generated	Assumed match equivalent sessions per season generated	Wickets required (rounded up)	Teams generated	Assumed match equivalent sessions per season generated	Wickets required (rounded up)	Teams generated	Assumed match equivalent sessions per season generated	Wickets required (rounded up)
Senior	5	5	60	12	7	84	17	9	108	22
Junior	7	3	24	4	5	40	6	6	48	7

- 5.1 The table above assumes that each adult team generates 12 home games per season and each junior team generates 8 home games per season.
- 5.2 Using the above assessment and taking into account the likely different demographic breakdown of Cranbrook to the East Devon average it would be prudent to ensure that a cricket ground with a minimum of 15 good quality grass wickets and 1 artificial wicket were provided with space to increase the number of wickets if necessary and cut junior wickets into the outfield. This plus the overlap in seasons means that the cricket ground cannot be generally overmarked by football pitches or any other sports.
- 5.3 The cricket ground would be ideally co-located with other sports facilities to share changing and maintenance arrangements.
The time for a cricket wicket to “bed in” should be considered and as such work on laying the cricket ground should begin an appropriate length of time prior to the facility needing to be open for use.

6 Rugby

Table 6.1 – Number of rugby pitches required by potential teams generated

Pitch type	Match equivalent sessions per week supported by a “standard” quality pitch with pipe drainage	4,000 dwellings				7,500 dwellings				9,000 dwellings			
		Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)	Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)	Teams generated	Assumed match equivalent sessions per week generated	Assumed matches generated at the peak time	Pitches required (rounded up)
Senior pitch	2.5	4	2	0.5	1	6	3	1	1	6	3	1	1
Mini/Midi pitch	2.5	2	1	1	1	3	1.5	1.5	2	4	2	2	2

- 6.1 The table above suggests that an application proposing 4,000 dwellings ought to provide 1 senior and 1 mini/midi rugby pitch. For a town of 7,500 or 9,000 dwellings, an additional mini/midi pitch would be required. These would need to be stand alone pitches (ie not overmarking one another).
- 6.2 However, taking account of the likely different demographic breakdown of the population at Cranbrook, it will be particularly important to ensure that there are sufficient pitches to cater for additional youth and mini/midi rugby teams. Youth teams tend to play on the senior pitches whilst U12s play on mini/midi pitches. This being the case, it would be prudent for a town of 7,500 or 9,000 to actually provide 2x senior pitches and 4x mini/midi pitches, however, one of the senior pitches could then have two mini/midi pitches overmarking it.

7 Hockey

- 7.1 Table 3.1 above shows that potentially Cranbrook will generate 1x senior men, 1x senior women and 1x mixed junior hockey teams. TGRs for hockey across East Devon are relatively low. Even at 9,000 dwellings, Cranbrook actually only generates demand for 0.8 senior mens, 0.8 senior womens and 0.7 mixed junior teams (each rounded up to 1 team). This being the case, and with significant pressures from football and rugby clubs within Exeter and arising from development within the West End of East Devon, it is considered that a 3G AGP surface in Cranbrook would be more in demand than a sand-based surface. That being said, Clyst Vale Community College in Broadclyst have aspirations to install an AGP and this should be encouraged to be a sand-based surface suitable for homing a hockey club should one form from Cranbrook and other West End developments.

8 3G AGP

- 8.1 As stated above, the AGP due to be installed in Cranbrook strategically would best be delivered as a 3G surface. 3G refers to a group of artificial grass surfaces that are based around a rubber “crumb” which acts similar to soil and rubber blades of artificial grass. Depending on the length of the pile, whether or not there is a shock pad laid beneath the surface and the dimensions of the pitch, 3G AGPs can be suitable for football and rugby training and matches but not hockey unlike sand-based surfaces which are designed specifically for hockey training and matches but can accommodate non-contact training for football and rugby.
- 8.2 As stated previously, the East Devon Playing Pitch Strategy is based on a shared evidence base with Exeter City Council. This evidence base shows that there are 7 sand-based AGPs and 1 water-based AGP in Exeter. These are all used by the 5 hockey clubs based in Exeter for matches and training, as well as Ashmoor HC, Dart HC and Exeter & Culm Vale HC who use the surfaces for matches only, and Honiton Hornets HC who train on one of the surfaces. In addition to this, due to the relatively low number of 3G surfaces in the city, these sand-based surfaces are heavily used by local football clubs for training. This means hockey clubs are often pushed out and also leads to conflicts of interest. Providing a 3G AGP at Cranbrook could help to migrate some of that football training away from the hockey surfaces in the city freeing up valuable availability.
- 8.3 Rugby demand for suitable 3G training surfaces is less of an issue in the West End of East Devon than football suitable training surfaces principally due to Exeter RFC’s provision at Sandy Park. For this reason it is suggested that the AGP installed at Cranbrook be a Football Turf Pitch 3G AGP meeting at least FIFA 1* performance standard.
- 8.4 Location of the 3G AGP at the leisure centre would potentially provide the most obvious way of ensuring ongoing management of such a facility, although it would perhaps be more appropriately located at one of the sports pitch hubs. This could help with the ongoing sustainability of that site, although, suitable ongoing management arrangements would need to be fully understood. Provision of the facility at/within the education campus would not be suitable due to the lack of security for community use in perpetuity. Whilst providing a facility at a school often works in other existing towns, this is a compromise position with limited alternative locations for their development. Cranbrook is a brand new town with the ability to ensure separate, more appropriate provision and this should be the aim.

9 Conclusions

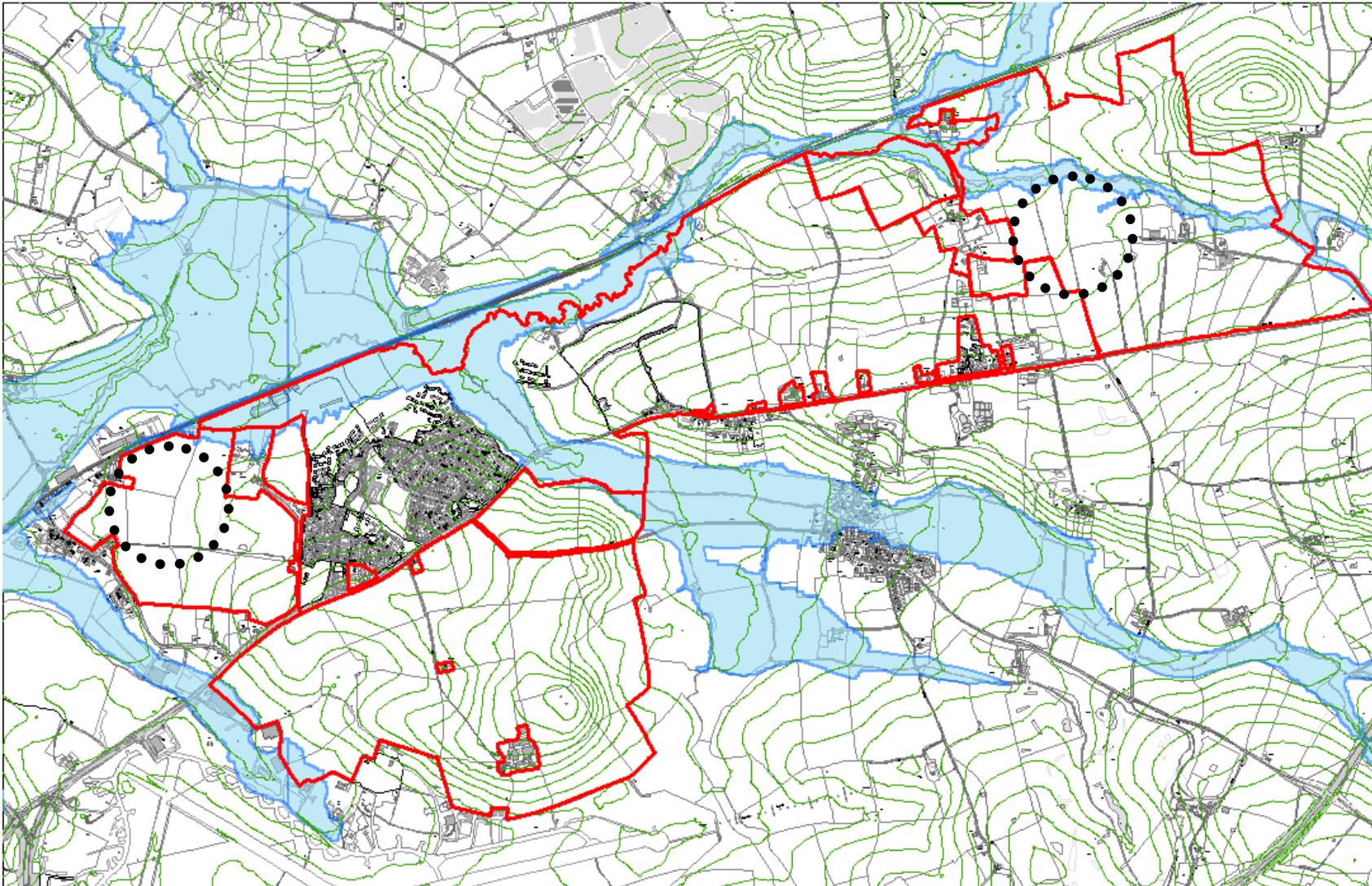
9.1 Based on the above assessment, Cranbrook should provide for the following numbers / combinations of sports pitches depending on the overall size of the town:

Table 9.1 – Required pitches for Cranbrook depending on number of dwellings

Sport / surface	7,500 dwellings	9,000 dwellings
Football	<ul style="list-style-type: none"> • 4x adult 11v11 • 3x youth 11v11 • 2x youth 9v9 • 2x mini 7v7 • 2x mini 5v5 • There would be spare capacity on the adult pitches outside of the peak time (Sat PM) to allow for a mini 7v7 or 5v5 to be overmarked on each half of 2 of the adult pitches. 	<ul style="list-style-type: none"> • 5x adult 11v11 • 3x youth 11v11 • 2x youth 9v9 • 3x mini 7v7 • 2x mini 5v5 • There would be spare capacity on the adult pitches outside of the peak time (Sat PM) to allow for a mini 7v7 or 5v5 to be overmarked on each half of 2 or 3 of the adult pitches.
Cricket	<ul style="list-style-type: none"> • 15x grass wickets (minimum) with room to cut more if necessary and room for junior wickets to be cut into the outfield. 	<ul style="list-style-type: none"> • 15x grass wickets (minimum) with room to cut more if necessary and room for junior wickets to be cut into the outfield.
Rugby	<ul style="list-style-type: none"> • 2x senior • 4x mini/midi (2 of which overmarking one of the seniors) 	<ul style="list-style-type: none"> • 2x senior • 4x mini/midi (2 of which overmarking one of the seniors)
AGP	<ul style="list-style-type: none"> • 3G Football Turf Pitch to at least FIFA 1* performance standard 	<ul style="list-style-type: none"> • 3G Football Turf Pitch to at least FIFA 1* performance standard

9.2 In both cases above, pitches should be co-located as much as possible to help with the ongoing sustainability and viability of sites and clubs. This being the case it seems appropriate to provide all of the pitches in the form of two hub clubs. These sports hubs would need to be accessible to the population without needing access to a car, provide the flexibility to provide for the above pitch requirements but also the ability to be remarked according to needs each season. Hubs enable sports clubs to pool maintenance arrangements, share changing and social facilities, feed members into one another and generally improve viability and participation. It would not necessarily have to be just pitch sports which are co-located. Potentially, other sports, leisure and recreation facilities could also usefully be co-located, although clearly there has to be good access to open space throughout the town.

9.3 As an example, the hub clubs could be located in the following indicative areas of Cranbrook based on expected housing areas, basic topography and floodzones.

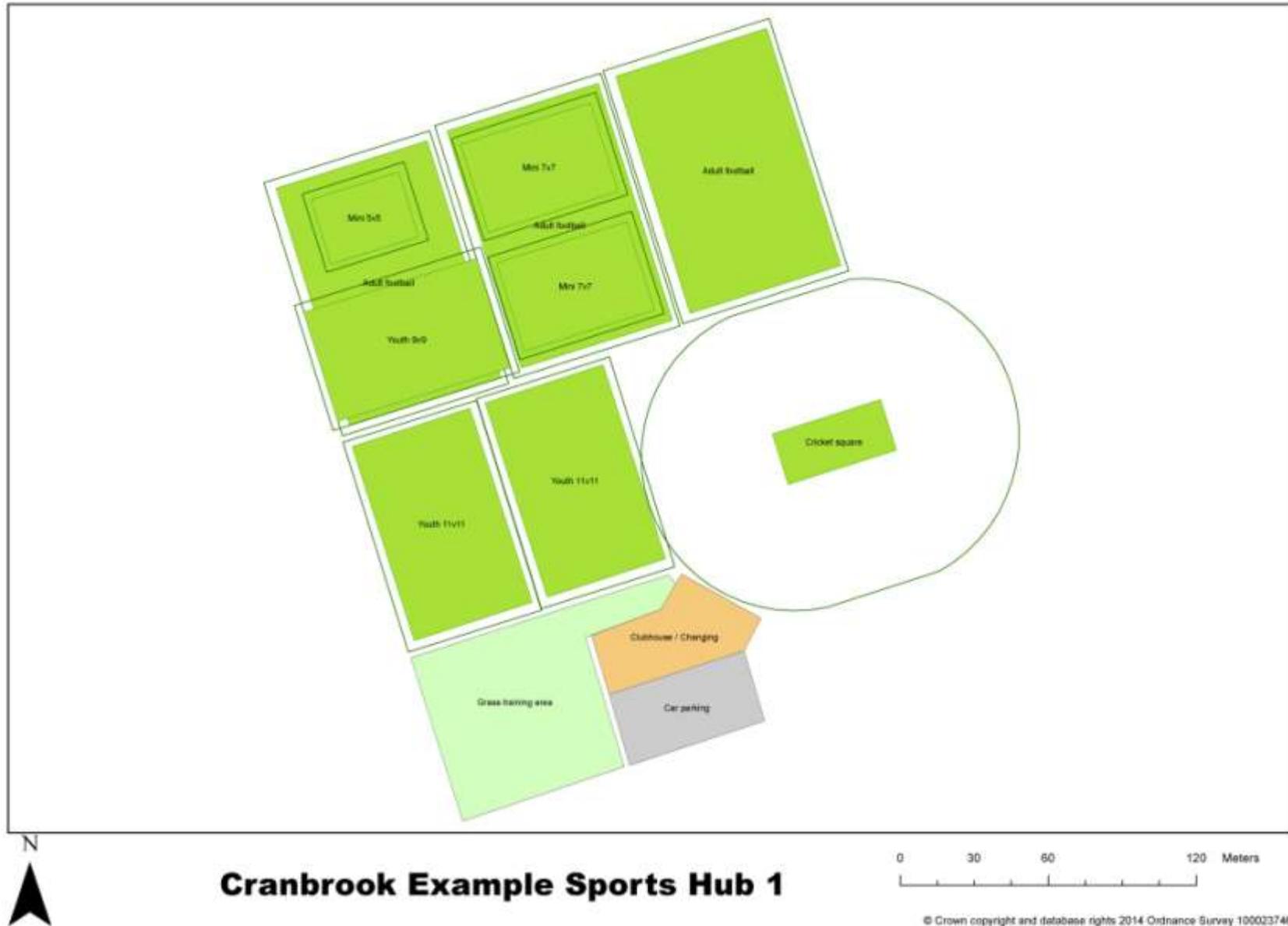


9.4 Sports pitches need to be provided to NGB performance standards and according to the following specifications:

Table 4.8 – Recommended pitch dimensions

Sport / age group	Pitch type	Recommended size without run-offs		Recommended size including run-offs		Recommended size of goalposts	
		Length (m)	Width (m)	Length (m)	Width (m)	Height (m)	Width (m)
Adult football	Adult 11v11	100	64	106	70	2.44	7.32
Youth U13/U14 football	Youth 11v11	82	50	88	56	2.13	6.40
Youth U11/U12 football	Youth 9v9	73	46	79	52	2.13	4.88
Mini soccer U9/U10	Mini 7v7	55	37	61	43	1.83	3.66
Mini soccer U7/U8	Mini 5v5	37	27	43	33	1.83	3.66
Cricket	Cricket wicket	20.12	3.05	Distance to boundary must be at least 50m		N/A	N/A
Senior/Colts/Junior rugby	Senior rugby	100	70	120	80	3m to cross bar, 3.4m above bar	5.6
U11/U12 Midi rugby	Midi rugby (mini to be played on smaller pitch within this area as well)	60	43	70	47	N/A	N/A

9.5 Using the above size specifications and the pitch requirements for a town of 9,000 dwellings it would potentially be possible to co-locate pitches in two hubs in the following arrangements (both hubs would be required). Please note these are only indicative but the principles of the example hubs will be expected to be adhered to when applications are considered. To allow for suitable overmarking of pitches and flexibility of the hub sites to cater for whatever the relevant demand is mobile goals to appropriate British standards and appropriate sizes (as detailed in the table above) should be provided for all of the football pitches. All of the pitch areas should be suitably drained to allow for more intensive usage that overmarking pitches inevitably creates.





Cranbrook Example Sports Hub 2



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- 9.6 Additionally one adult football and one senior rugby pitch should be capable of being developed as and when the clubs need to do so in order to progress through leagues. This would include the addition of a perimeter rail, a covered stand, dugouts and floodlighting. Floodlighting may also be required on the grass training areas.
- 9.7 Appropriate changing facilities and car parking should be provided on each hub site. Changing facilities should allow separate changing rooms for the home and away teams and the match official for each game expected to be taking place at the peak time. In the examples above, if 6 youth/mini football teams were all playing at home at Example Sports Hub 1 on a Saturday morning that site would need 12 separate team changing rooms as well as 6 match official changing rooms. Similarly, if 2 adult football and 2 senior rugby teams were all playing at home at Example Sports Hub 2 on a Saturday afternoon that site would need 8 separate team changing rooms as well as 4 match official changing rooms. Changing facilities should have regard to safeguarding children if at any point youth and adult matches are likely to take place simultaneously on the same site. Similarly, if at any point male and female matches are likely to take place simultaneously the changing configuration would need to have regard to that. Appropriate changing facilities should be designed in consultation with relevant NGBs.
- 9.8 In addition to changing facilities, sufficient car parking should be provided. The sports hubs should be located close to sustainable travel routes (bus stops, cycleways and footpaths), however, inevitably there will be a need for some travel by personal car, not least the away teams.
- 9.9 Clubhouse facilities should also include a kitchen, bar/social facilities, dedicated medical room, toilets (separate for players, match officials and spectators), showers (in each changing room including the match officials) and kit lockers. Clubhouse facilities should all be DDA compliant to ensure disabled access and usage. The clubhouse might also include built-in maintenance equipment storage. If not, separate provision will be required for this.
- 9.10 All sports pitches must be available for community use. Pitches provided at the education campus and at school sites around the town will be in addition to the pitches required through this assessment and cannot be relied upon as meeting community sporting needs. This is principally because community use cannot be guaranteed in perpetuity and educational use of the pitches takes up the vast majority of pitch capacity. Any pitch has a finite capacity and exceeding that can make a significant difference to the quality and usability of the pitches.