A GUIDE TO SECOND WORLD WAR ARCHAEOLOGY IN SUFFOLK

Guide 4: Stop Lines

Robert Liddiard and David Sims

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Stop Lines is one of a set of four guides to Second World War archaeology in Suffolk. Three guides examine the anti-invasion coastal defences that were built principally in 1940–41, while this guide looks at the interior defence lines constructed during the same period. Although the Second World War is a conflict rapidly fading from human memory, its physical legacy is more permanent. In places it is still possible to get some impression of how militarisation drastically altered the countryside. We hope that this guide will help readers to explore, understand and enjoy the physical remains of that conflict that still lie in the countryside, as well as giving some idea of the historical background.

University of East Anglia

Introduction

Rural Suffolk is an idyllic place and the visitor would be forgiven for thinking that the peace and tranquillity of its sleepy market towns and villages has existed for centuries. Within living memory, however, large parts of the county were transformed by the construction of substantial military defences. During the Second World War, the Suffolk countryside was some of the most heavily fortified anywhere in England, with defensive 'stop lines' of pillboxes, barbed wire and anti-tank ditches cutting a swathe across the landscape and linking up villages that had been transformed into strong points.

The purpose of these defences was simple. They were part of Britain's response to the threat of German invasion and were intended to delay and hold back enemy armoured columns that were expected to drive inland from the nearby invasion beaches and ports. Today only fragments of this military landscape survive, but in places enough is left to gain an impression of what was once put in place to defend against invasion (Figure 1).

This guide is divided into two parts. The first provides a history of Suffolk's stop lines in order to give a background to the archaeological remains. The second part comprises three 'pillbox trail' walks, which allow the walker to appreciate the scale of some of the defences.

Figure 1. Typical pillbox in the Suffolk countryside and a reminder of the miles of 'stop line' defences that once crossed the county.

Lines in the Landscape

The defences covered in this guide were constructed chiefly during 1940, but alterations and adaptations took place up to 1942. In order to understand what was built and why it is necessary to step back and look at the national picture, especially the crisis of 1940, when a German invasion of Great Britain was considered by those at the top of government to be not just likely but certain. With German troops and invasion barges being massed in the ports of Northern France and the Low Countries ready for operation 'Sealion', the only question was whether southern or eastern England was the main target.

The British high command was reasonably confident of the likely form that any German invasion would take. The Luftwaffe would take the lead, with a protracted bombing campaign. Then the German navy would prepare sea lanes and conduct a series of feints to cause confusion among the British as to where the main attack would come. Thousands of airborne troops would then be landed close to targeted ports in order to overrun the coast defences and secure large-scale shipping facilities and ideally grassy airstrips or aerodromes. With landing grounds protected, thousands of men could be flown to Britain per day, but the bulk of the invaders – a force perhaps some 60,000 strong, with tanks and armoured vehicles in the vanguard – would follow by sea, probably landing at several points at once. Once the armoured columns were ashore, they would drive either towards London or towards the industrial Midlands, or perhaps both. As a grim British assessment of German intentions put it:

> It is probable that the Germans will employ their maximum scale of effort, and will be prepared to accept almost catastrophic losses. Wide dispersion of the points of attack is likely, and simultaneous attacks on numerous points is probable. At each point of attack the best possible use will be made of air forces, armoured fighting vehicles and fifth column … they will not hamper themselves with a mass of administrative echelons.

The resources available to Britain's newly appointed Commander in Chief of Home Forces, General Edmund Ironside, to counter such a threat were decidedly limited (Figure 2). The British Expeditionary Force, which comprised the country's best troops, had just been comprehensively defeated in France, was exhausted after its evacuation from Dunkirk and

Figure 2. General Edmund Ironside, Commander in Chief Home Forces, during the invasion crisis of 1940. Ironside's anti-invasion strategy called for stop lines to be built across the country. (IWM H667)

had abandoned most of its modern equipment. Those troops allocated to home defence duties were typically poorly equipped and only moderately trained.

As a response to this precarious situation Ironside devised a straightforward strategy based upon countering the German *Blitzkreig* tactics that had proved so effective in France and the Low Countries. Beach defences were to be developed to form a coastal 'crust' (for which see Guides 1–3) that would hold up the invader for as long as possible. Once the Germans were ashore their advance was to be slowed up via a series of anti-tank lines and fortified 'nodal points'; and when their main intentions were known, what was left of Britain's mobile reserves would meet and then defeat them decisively in a pitched battle. As Ironside himself put it, his plan was to 'prevent the enemy from running riot and tearing the guts out of the country as happened in France and Belgium'.

The result was that Britain was criss-crossed with a series of defensive lines, known at the time as 'stop lines', many of which ran unbroken for tens of miles across the country (Figure 3). The most important at a national level was the GHQ (General Headquarters) Line, which protected

Figure 3. Map of national defence lines. (Dobinson 1996)

the industrial Midlands and ran from Somerset to Essex, swinging south past London, which was itself ringed by a series of defences, before heading north to Yorkshire. In addition, shorter lines were built by the various regional Army Commands and in turn by the constituent Corps and Divisions that had responsibility for home defence. East Anglia formed part of Eastern Command, with Suffolk and parts of Essex occupied by XI Corps, with Suffolk held entirely by 55 Division. These shorter lines, too, were substantial undertakings and extended for considerable distances across the landscape (Figure 4). Those that ran for all or part of their length across Suffolk form the basis of this guide.

Figure 4. Map of stop lines in East Anglia. (Dobinson 1996)

What was a Stop Line?

As they were envisaged in 1940, the purpose of stop lines was three-fold. Firstly, they were forward boundaries for reserves moving up to confront an invader. Such a role was not as unimportant as it sounds: British units needed clearly defined and protected boundaries up to which they could advance before counter-attacking German forces in the flank or rear. This was particularly relevant as German armoured divisions could push inland by themselves, while infantry divisions had to wait for their guns and equipment before they could advance any distance. British counter-attacks could therefore potentially cut off and dispatch the more powerful elements of the German forces as they rushed towards the industrial Midlands or London.

Secondly, stop lines were to act as places where enemy mechanised troops that had broken out of the beach defences could be confronted and held up. This was to be achieved by the building of fortified nodal points, which were chiefly villages that represented bottlenecks in the road network and were perfect places to impede the passage of armoured vehicles. In addition, associated linear 'stops' comprised anti-tank barriers that, ideally, were covered by defending fire. Such barriers were intended to serve as anti-tank obstacles that would channel and contain enemy forces before they were defeated by counter-attacking mobile reserve troops that would themselves be starting their assaults from the most favourable locations along the stop line itself.

Thirdly, and only in the last resort, they formed static defensive lines. This final purpose is worthy of further explanation as at first it seems at odds with the general strategy. The crucial point is that stop lines were not intended to be some kind of 'front line' that would be heavily manned and then held at all costs in order to stop a German advance; they should not, therefore, be thought of as some kind of attempt to create a long defensive front akin to the trench systems of the First World War. Only when the practicalities on the ground dictated it were sections to be held as defensive lines in a pitched battle.

Rather, the ideal stop line comprised a long anti-tank obstacle made up of series of linked defended localities that were capable of all-round defence and therefore able to slow down an enemy column. These localities, together with their associated anti-tank barriers, comprised roadblocks, infantry trenches, concrete pillboxes, anti-tank emplacements and barbed wire. Given the resources available to him, Ironside had little choice but to form a strategy based on linear defence. Although his scheme did not command universal

assent at the time, and was severely criticised subsequently, in reality there were few credible alternatives open to him when he took up his command. Although the defences were later censured for being 'static', it is important to bear in mind that just as crucial to Ironside's scheme were mobile reserves that could move up to meet the main enemy attack wherever it came.

Suffolk's Stop Lines

In total, some seven stop lines crossed the county, but it is important to recognise there was a hierarchy of lines and that not all had exactly the same purpose (Figure 5). There were important differences in the degree to which they were fortified and even on the same stretch of line there was often a lack of uniformity to the defences. To add further confusion, some lines were known by various names at different times in the war and modern writers have sometimes compounded the situation by giving lines new names altogether. But, in summary, the stop lines of Suffolk comprised:

1. Line C, also called the Eastern Command Line or Command Line and known as the Corps Line after September 1940. This originated at Colchester in Essex, entered Suffolk at Bures and ran north through the east of the county, passing Sudbury, Lavenham, Bury St Edmunds and Mildenhall, before heading further west and joining the river Great Ouse. This was always one of the most important and heavily fortified of the county's stop lines and is referred to in this guide as the Corps Line.

2. Line D, sometimes referred to as the eastern branch of the Eastern Command Line, ran from the river Orwell at Ipswich through the centre of the county via Haughley, Stowmarket and then Brandon before crossing into Norfolk, continuing to Thetford and then joining the Great Ouse further north than the Corps Line.

3. Line E was part of a broader XI Corps Line 'B' that originated at King's Lynn. In June 1940 it followed a line from Oakley south via Debenham and then headed east to Wickham Market before meeting the 'Back Line' just south of Marlesford. At some point between June and December 1940 the course of the line was changed so that it ran south via Framlingham to Woodbridge, from where it followed the course of the river Deben.

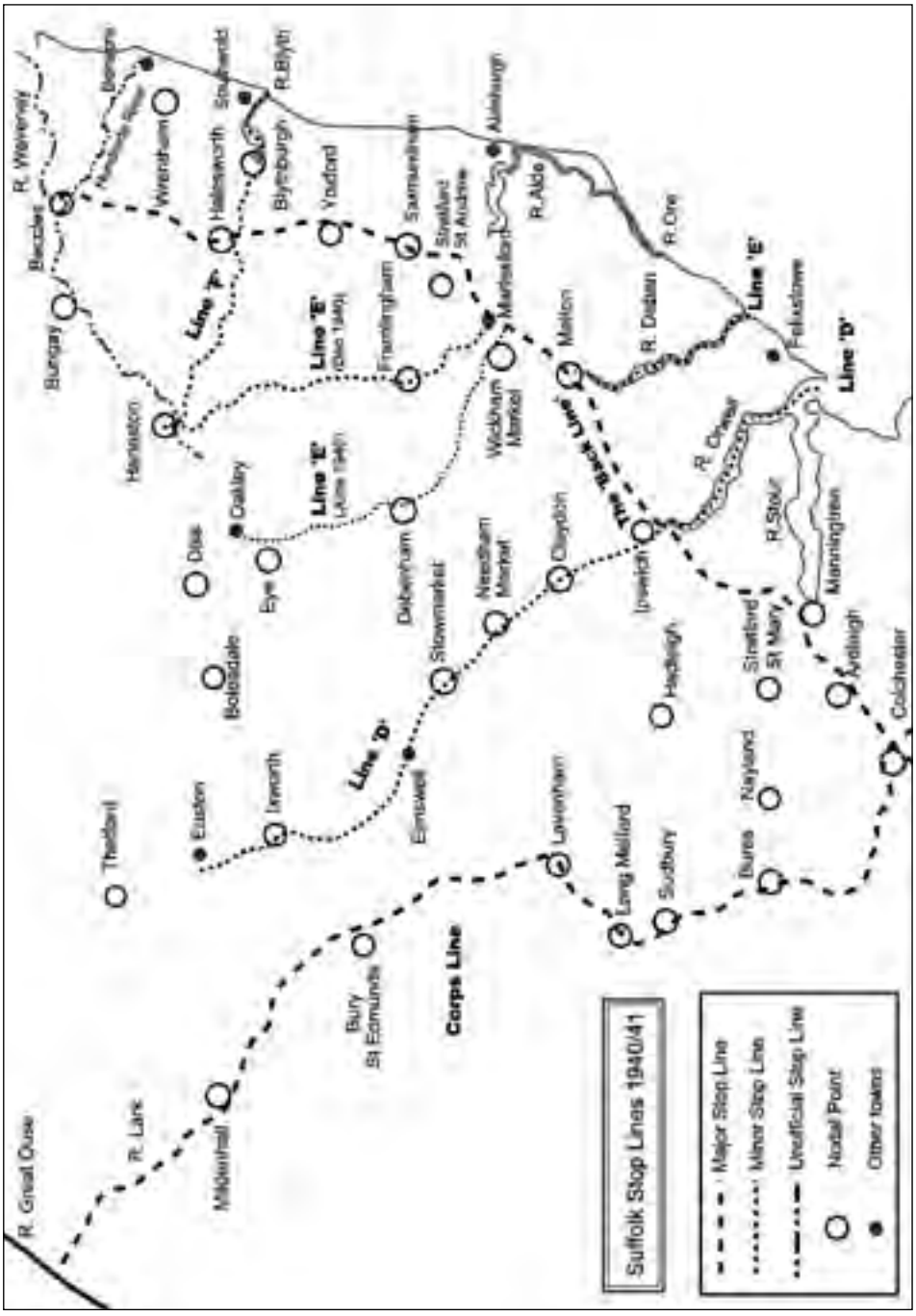

Figure 5. Map showing stop lines and nodal points in Suffolk.

4. Line F also sprang from XI Corps Line 'B', but ran east to Halesworth and Blythburgh, from where it followed the line of the river Blyth to the sea.

5. The 'E–F Switch' Line ran north–south between Halesworth and Campsey Ash and formed a link between Lines E and F. In late 1940, however, this line became part of The Back Line, which ran unbroken from Beccles to Colchester and which also incorporated parts of Line E.

6. The Waveney Line, as it was called in documents, was a short section of fortification that followed the river Waveney from Beccles to Lowestoft.

7. The River Line ran up from Essex via a series of watercourses, entered Suffolk at Wixoe and followed the river Stour before terminating at Great Bradley, on the Suffolk/Cambridgeshire border. As this line barely crosses the county boundary, it is not discussed in this guide.

In total, these lines amounted to approximately 225 miles (or 360km) of defences and were provided with approximately 300 concrete pillboxes, of which just over half survive today.

Suffolk's Nodal Points

Figure 5 shows the location of Suffolk's chief nodal points during the war. The map cannot be definitive, as some places were reclassified as the war progressed, but it shows that the majority were located on the stop lines themselves, where they were integrated with the longer lines of fortification. Nodal points tended to be larger villages or towns and frequently marked the convergence of four or five major roads and/or a major river crossing. Only in a small number of cases were nodal points isolated and, where they were, such as at Wrentham, they either tended to be close to the coast and were also important junctions or, as at Hadleigh and Nayland, were in areas between stop lines but represented obvious bottlenecks in the road network.

Suffolk's Stop Lines, 1940–43

Although all of Suffolk's stop lines were constructed in 1940, as early as November 1939 orders were given to troops on the coast to establish a 'Reserve Line' along the course of the railway from Saxmundham to Halesworth. The roads leading across this line were to be covered by defended posts held by

unit reserves, as it was deemed essential that any advancing enemy should not pass to the west of the railway. Such orders prefigure the invasion crisis of 1940, when the strategic situation changed entirely and the countryside was transformed as stop lines and nodal points sprang up all over the county. During this time there was frenetic activity on the part of the military, civilian contractors and various municipal organisations which resulted in the construction of hundreds of concrete pillboxes, gun emplacements, roadblocks and other obstacles. But as early as the winter of 1940/41 the newly built stop lines were subject to a considerable change. In a major reorganisation, a decision was taken to retain only two lines (The Corps and the Back Line), and the others were effectively abandoned. The network of nodal points remained in place, however, and became of greater overall importance, with some places receiving additional fortifications and defences. This new scheme of defence was to remain until 1943, when fears of a German invasion dwindled and Britain's military began to think about a return to occupied Europe, rather than home defence. The story of Suffolk's stop lines is therefore one of rapid development in 1940 followed by major change in late 1940–41, maintenance thereafter and eventual dismantlement.

The Year of Crisis: 1940

The invasion crisis of May 1940 was triggered by the rapid German advance through France, Belgium and the Low Countries, and the initial planning for Suffolk's stop lines began the following month. The senior commanders tasked with deciding how many lines there should be and where they should go had what amounted to a blank canvas on which to draw, and although the lines seen on a map have, at first sight, a haphazard appearance their layout does, however, have an underlying logic.

When it came to holding up German invasion forces pushing inland from its beaches, Suffolk's geography afforded certain advantages and disadvantages to British commanders. The rivers Waveney, Blyth, Alde, Ore and Deben potentially protected the flanks of defending forces and at the same time prevented any invader's lateral movement; this was particularly fortuitous as far as the British were concerned as the rivers would prevent German forces that had landed at several beachheads simultaneously from linking up. By contrast, the undulating landscape that characterises the interior of the county represented excellent tank country and denying its use to fast-moving columns of vehicles was more problematic.

The obvious solution was to utilise existing obstacles, such as rivers, canals, railway cuttings and embankments, to form long anti-tank barriers. As a result, the Corps Line followed the Stour and the Lark, Line D the Gipping as far as Stowmarket, Line E parts of the Deben and Line F the Blyth. The Waveney Line simply followed the course of the river. Careful note was also taken of how far upstream rivers provided an acceptable obstacle and whether rainfall improved their potential as an anti-tank barrier (Figure 6). At the place on the ground where rivers were no longer deemed to be suitable other arrangements had to be found. Where a man-made obstacle existed it was invariably reused, as is best seen on the Corps Line, where the Sudbury–Bury St Edmunds railway formed the course of the line from the point at which the rivers Lark and Stour became unsuitable. Similar arrangements underpinned the course of Line D, the multiple cuttings and embankments of the stretch of railway between Stowmarket and Tostock forming the tank barrier in the area between the river Gipping and the Black Bourn.

In the case of the Corps Line, the decision-making process that lay behind the route is documented. Following a visit to inspect Harwich by the Inspector General of Fortifications in June 1940 it was stated that the river Colne already constituted a tank-proof obstacle and could be held if troops were available.

Figure 6. Map showing rivers that could potentially serve as anti-tank obstacles.

As Colchester was already in the process of being fortified it was logical to extend the line of defence northwards along the railway line to a point just east of Manningtree. Given that any German attack would not just be directed at Harwich alone but was also likely to be combined with an assault from the north-east, 'The Corps therefore decided that this line is to be withdrawn to a line R. Coln – Colchester – Colne – Sudbury etc'. In turn the line was then expanded northwards through west Suffolk and into Norfolk, eventually terminating at the Wash. The remaining lines in the country were probably planned by 55 Division. By 5 July 1940 parts of the E–F Switch Line had been reconnoitred as secondary positions for mobile anti-tank guns and by the end of the summer clear instructions had been issued regarding how Lines E and F would be manned by reserves in the event of invasion.

Building the Lines

At least in theory, stop lines were to be prepared in four stages. The first was to prepare all nodal points for all-round defence, with all roads leading in or out blocked. Outside these nodal points, other roads that crossed the stop line were also to be provided with roadblocks. Secondly, pillboxes would replace fieldwork positions and tank-proof roadblocks would be constructed. The third stage saw the construction of a 'tank-proof obstacle' across the entire length of the line. Finally, field positions were organised in depth. In addition, all road and railway bridges over water obstacles along the course of the lines were to be prepared for demolition. These bridges were to be blown only at the last minute, almost at the point where they were being overrun, as they were needed to allow counter-attacking British troops across.

In reality, the construction of the lines was often more haphazard, with all these stages proceeding concurrently, rather than in the prescribed sequence. An Operational Order from XI Corps from 18 July 1940 laid down specific responsibilities for those building the Corps Line in an effort to make the process of construction more efficient. Pillboxes were to be built by civilian contractors and anti-tank ditches by a Royal Engineer excavator company, while roadblocks were the responsibility of the County Council. Divisional engineers prepared the bridges along the line for demolition, while a civilian contractor was responsible for damming streams in order to make for improved anti-tank capability. Other labour (some of it undertaken by local people and unpaid) was put towards clearing trees and other obstacles from anti-tank ditches.

The actual situation on the ground was summed up by the war diarist of 229 Field Company Royal Engineers, who were responsible for a section of the Corps Line during July to October 1940. He wrote in clipped military style:

> Took over Command Line from Lavenham to Earls Colne. Indescribable chaos. Everybody has a finger in the pie, without any coordination. Road blocks – – the most important thing don't exist, spent days trying to get a ruling, no one will give decision decide to act. Ministry of Transport … at Bury St Edmunds agrees to proposal and will order the work. The representative from London who does Colchester area with note quoting instruction re. designs from C[ommander] E[ngineers] No instructions reached me. Inform Ministry of Transport cannot accept C[ommander] E[ngineer]'s orders through them … say if no action within 24 hours will start work with local contractors. This shakes them. Phone from C[ommander] E[ngineer] officer via adjutant to hold fire. The blocks in actual fact were not completed by the time the unit left …

The scenario the diarist described was no doubt being repeated across the county as frantic efforts were made to get the stop line defences in place. By

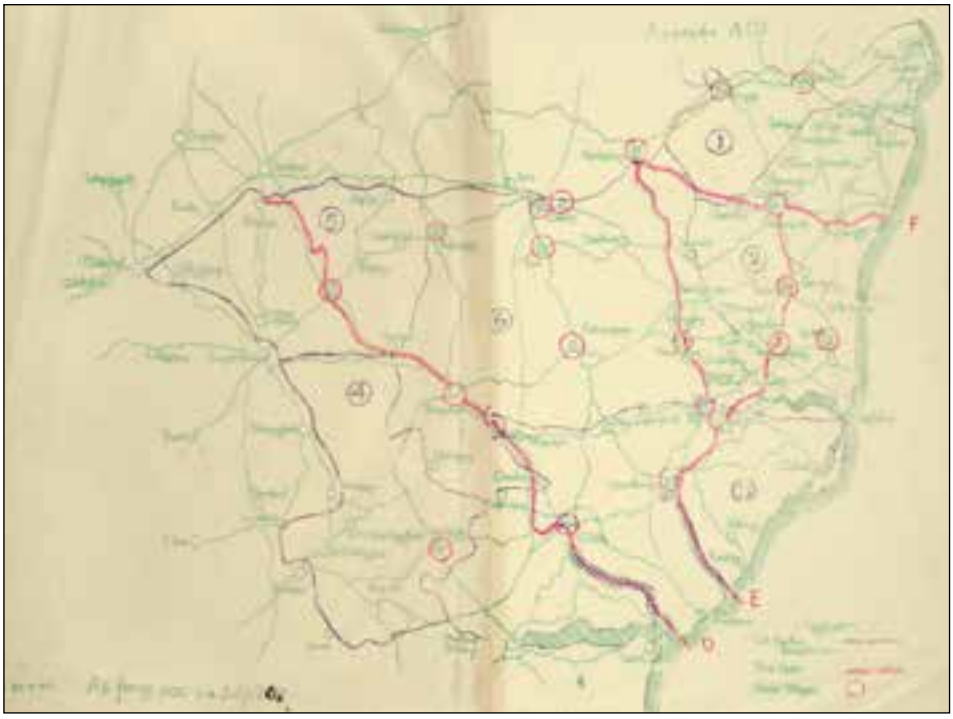

Figure 7. Map of stop lines and nodal points in July 1940. (The National Archives)

the end of the invasion summer a network of lines existed on the ground, albeit in some places stronger than others, with miles of anti-tank obstacles and hundreds of pillboxes and field positions (Figure 7). Today it is usually only the concrete pillboxes that are left of the once much more substantial defences, but these often provide important evidence as to how lines were built and were intended to function in the event of invasion (Figure 8).

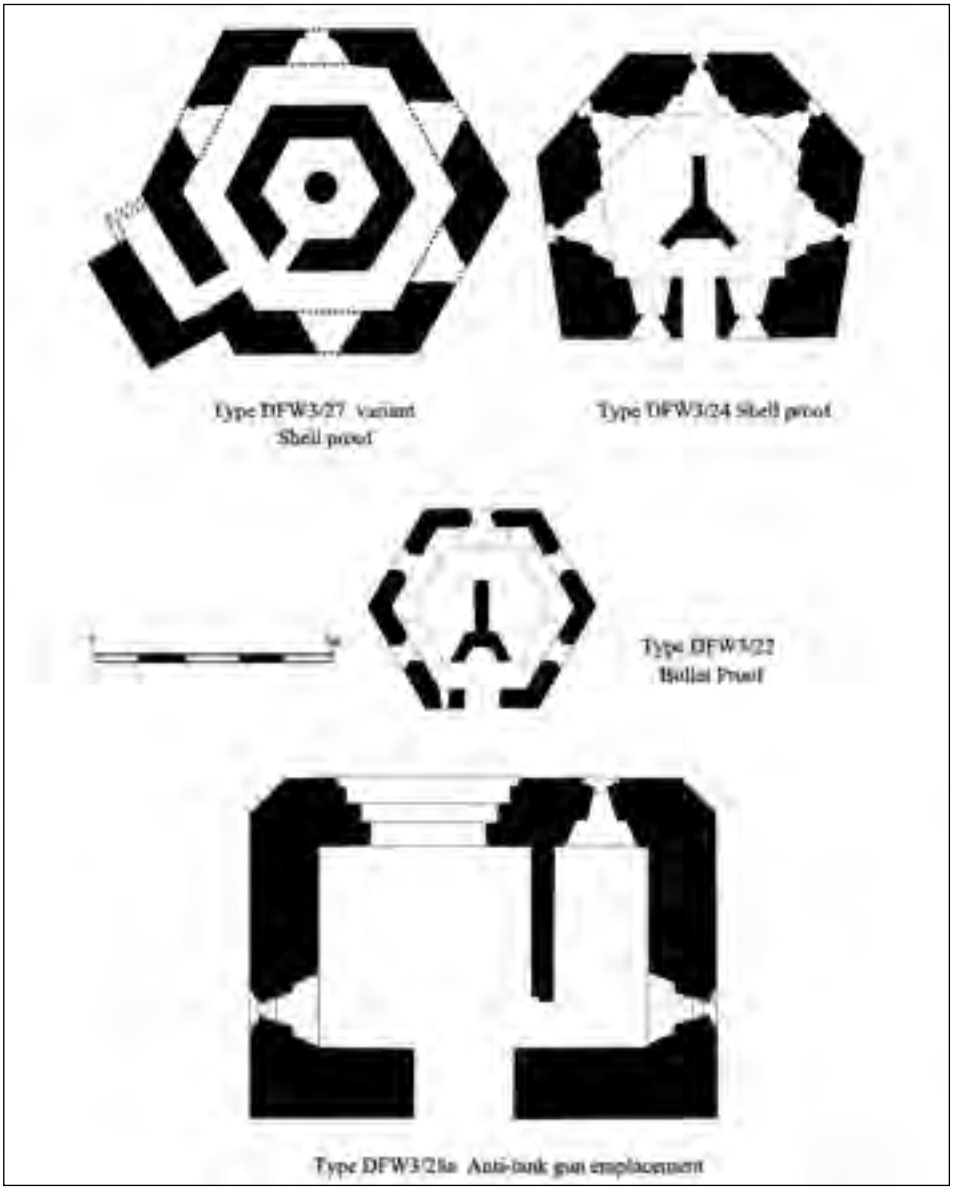

Figure 8. Plans of pillboxes typical of Suffolk's stop lines. This shows only some of the designs; numerous variants were in existence, sometimes over short stretches of the same line.

The Corps Line

The Corps Line was always the most heavily fortified stop line in the county, with some 118 concrete pillboxes of all types built between Sudbury in the south and Barton Mills in the north by August 1940. Three distinctive kinds of pillbox, together with sub-variants, dominate the Corps Line and their designs almost certainly originated from XI Corps Engineers, based at Colchester – although they are often classified as a modified Type 27 by modern authors. The first took the form of a regular hexagon with six embrasures and a low-cut entrance, and was built to bullet-proof standard with 15-inch thick walls. The second took the same form but was shell-proof, with considerably thicker walls (34–36 inches). Alternative versions of both these pillboxes had provision for a machine gun in an anti-aircraft role in the form of a central open bay for the gun mounting. The third design was a shell-proof pillbox designed to carry an anti-tank gun, often known as the Type 28. The Corps Line was also generously provisioned with Type 22 pillboxes, which comprised a hexagon with five or six embrasures and a door (Figures 9 and 10).

Figure 10. Type 28 anti-tank pillbox at Cockfield. The large embrasure for the gun has subsequent been blocked up to convert the structure for use by infantry.

Figure 9A.

Corps Line pillboxes: bullet-proof (at Lavenham) and shell-proof (at Sudbury) versions of modified Type 27, from a design originally from XI Corps Royal Engineers at Colchester.

Figure 9B.

From Bures to Long Melford these distinctive types make up all the concrete defences, but to the north smaller Type 22 pillboxes (bullet-proof regular hexagon design) start to appear. In the stretch from Bury St Edmunds to Barton Mills approximately half of the surviving pillboxes are of 'Colchester' type, while the other half are Type 22s, albeit these are shell-proof versions. From Barton Mills to the county boundary with Norfolk, only Type 24 (irregular hexagon) survive; these are more typical of the nearby GHQ Line and this, together with the fact that this sector was the responsibility of II Corps, probably accounts for the change of design.

Along the whole Corps Line pillboxes show frequent small-scale modifications or alterations that indicate where local conditions and materials resulted in a slightly different design. Military documents show that 'one off' designs were not considered desirable, but they did exist: at Lavenham a highly unusual pillbox appears to have been the only one of its kind, perhaps the result of a local need to dominate a wide field of fire (Figure 11).

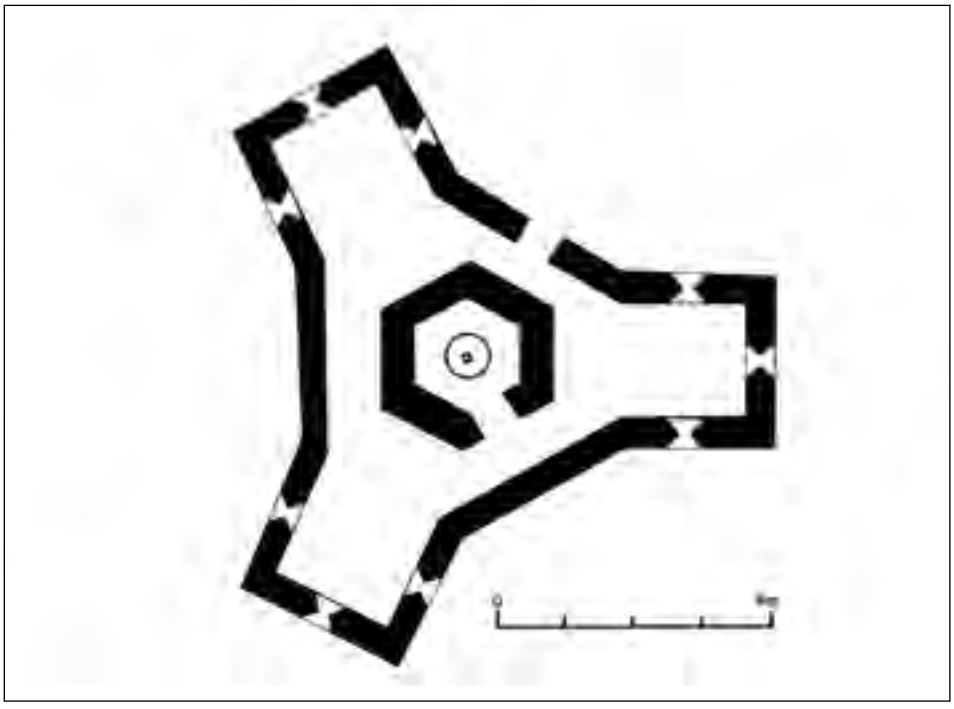

Figure 11. Plan of 'one off' pillbox near Lavenham.

The distribution of pillboxes shows that there was a tendency for areas with significant roads or bridges to have a slightly greater number of concrete fortifications than the intervening areas. Typically, those places where roads crossed major rivers also tended to receive emplacements for anti-tank guns; clearly it was expected that the significant engagements would take place close to the major highways. This distribution perhaps reflects historical accounts that show that the XI Corps Commander of Royal Engineers himself went into the field to decide where anti-tank emplacements should be sited.

There are also subtle variations in the density of pillbox distribution along the line. In Suffolk, the most heavily fortified stretches are in the south, particularly around Sudbury, where there are 3.1 pillboxes per kilometre. Here, the four major river crossings of the Stour marked this area out as important in strategic terms, and this stretch was also provisioned with anti-tank emplacements (Figure 12). The density of pillboxes steadily drops the further the line travels north and by the time it reaches Barton Mills and the border with Norfolk it drops to 1.3 pillboxes per kilometre. In Suffolk as a whole, the northern half of the line has less than half the number of pillboxes than the southern half (Figure 13).

Figure 12. Type 28 pillbox for a six-pounder anti-tank gun on the Corps Line at Sudbury.

Figure 13. Section of Corps Line near Sudbury, showing pillboxes plotted onto the military Cassini map of the area between Long Melford and Cockfield.

At a few places on the Corps Line it is possible to gain an appreciation of stop line fortification in something like its intended form. The first is at Jude's Ferry near Mildenhall, where the bridge across the Lark, which formed part of the Corps Line, retains nearly all of its concrete defences (Figure 14). To the east and west of the crossing, infantry

Figure 14. Plan of the defences at Jude's Ferry.

pillboxes defended the river from the south, while the bridge itself (the modern bridge is a little to the east of the original structure) was prepared for demolition and the road blocked at both ends. The pillboxes, which were of both Type 22 and Type 24, included one with an unusual roof designed to break up its distinctive shape from the air. The defence was bolstered by an anti-tank pillbox for a six-pounder anti-tank gun, which was positioned so it could fire directly over the bridge. This position continued to be manned through to the middle of the war and a spigot mortar pedestal (upon which 'Sgt Rolfe' has been written in the wet concrete) shows that the defences were upgraded in 1941 (Figure 15). A much more unusual survival is a concrete sandbagged emplacement to one side of the bridge – a very rare example of the infantry positions that once accompanied the other concrete defences (Figure 16).

The second is the area between Long Melford and Cockfield, which shows how defences were organised along a linear stretch of the Corps Line.

Figure 15. Spigot mortar position with inscription.

A wartime plan dating to September 1940 shows not only the concrete pillboxes but also the associated field positions (Figure 17). In fact, the actual defensive line here does not actually follow the 'official' course, which was the railway line. The cuttings and embankments do not

Figure 16. A rare example of a concrete sandbagged position adjacent to the bridge at Jude's Ferry.

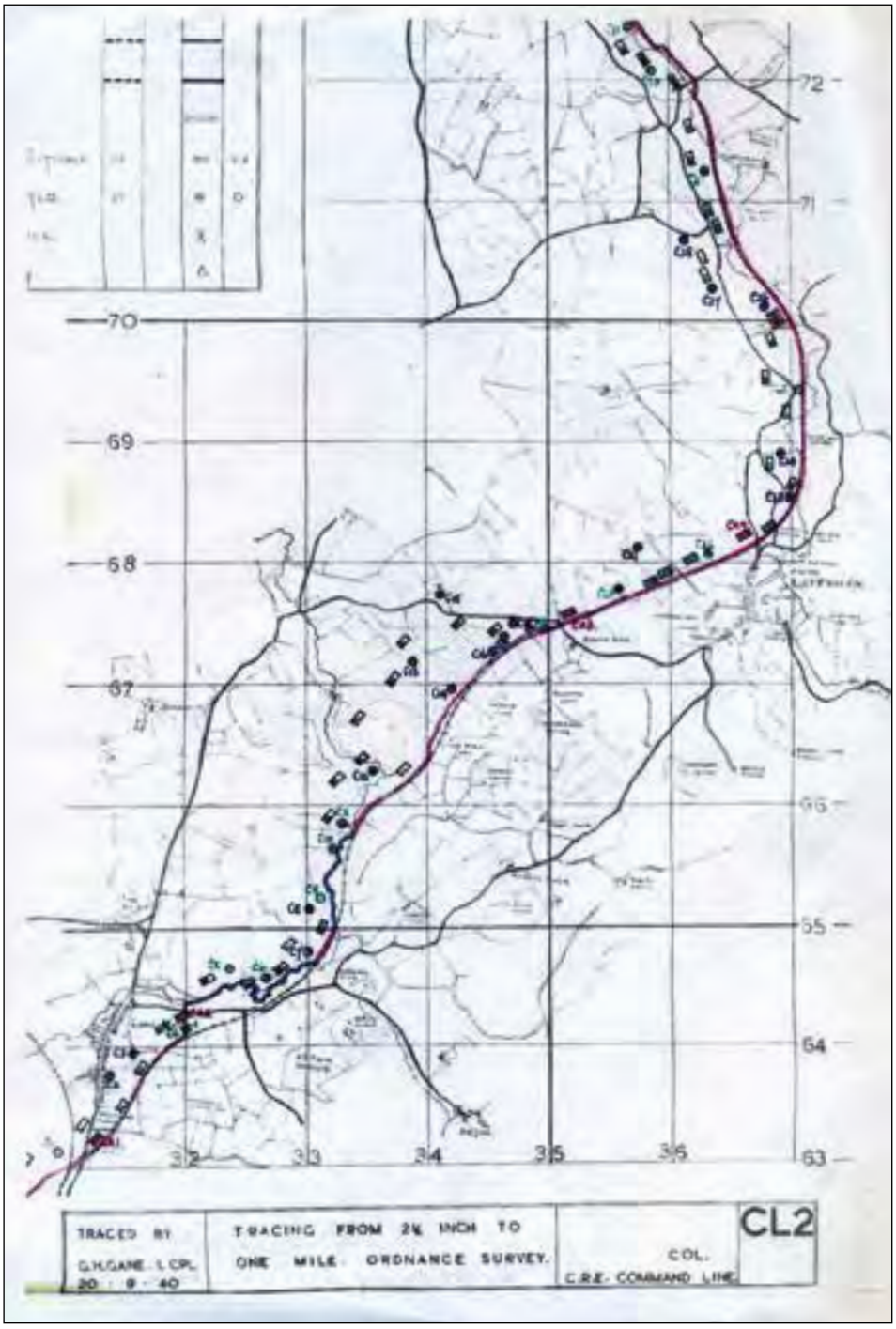

Figure 17. Original plan of 1940 showing part of the Corps Line around Lavenham. (National Trust)

constitute a significant barrier, as they are neither steep nor high, and so early on a decision was taken by commanders on the ground to instead defend what is today a small stream, which runs close to and in some places under the railway line. Undoubtedly this watercourse would have been widened and deepened in 1940: indeed, work of this kind was recorded in unit war diaries throughout that summer. This small topographical detail might also make sense of a laconic remark in the war diary of 299 Field Company Royal Engineers – 'Land or the river I say "can't have cake and eat it"' – which presumably refers to an otherwise unrecorded discussion on whether to defend the railway or the stream on this part of the line. In any event, roadblocks were established on the bridges over the railway line and the stream. The defensive line itself comprised a series of infantry pillboxes between which were anti-tank positions for two-pounder guns. Interspersed between these defences were conventional infantry positions. Furthermore, a little way behind was a further line of anti-tank gun positions intended to deal with any vehicle that had broken through and also to defend the line from other directions. Along the length of the line a small number of the infantry positions survive as earthworks. In Lineage Wood, for example, there is a series of weapons pits and trenches often revetted with concrete-filled sandbags (Figure 18).

Figure 18. Gun position on the Corps Line near Long Melford. This is typical of the kinds of position built along the line, positions that were never manned and for which the intended anti-tank gun was in critically short supply.

Line D

Unlike the Corps Line, Line ‘D’ originally had a smaller number of pillboxes constructed along its length and fewer have survived. Line D’s subsidiary role is clearly shown by the pillboxes themselves; the majority are bullet-proof Type 22 and Type 24, while on the Corps Line more than 50 per cent of pillboxes were built to shell-proof standard (Figure 19). Line D also provides a good example of how the railway line that formed the anti-tank barrier between the river Gipping and the Black Bourne was sometimes augmented – at Elmswell, a series of concrete blocks was laid to obstruct the particularly shallow stretch of line that existed between the cuttings and embankments (Figure 20).

Figure 19. Type 24 pillbox on Line D at Elmswell, showing the characteristic exterior shape.

Figure 20. Anti-tank blocks at Elmswell, intended to give additional defensibility to the short gap between an embankment and cutting as the railway line that formed the basis for Line 'D' crossed a natural valley.

The papers of R. Hogg & Son, the civilian contractors responsible for building the pillboxes along part of this line, give a unique insight into how they were camouflaged. During the winter of 1940–41 considerable effort went into disguising the newly built structures. Between Ixworth and Barnham Hogg & Son were responsible for camouflaging half of the sixteen pillboxes that stood along this section of line. The chosen designs were varied and included two bus stops, turf and soil, a horse stand, a pile of sugar beet, a white fence with willow trees planted alongside, a chaff heap and a stone garden wall with camouflage paint. Elsewhere, camouflage included a cottage (with army engineers supplying thatch), billboards, fences and a gentleman's public toilet (Figure 21). One survival from over the county border at Thetford shows how one such pillbox was camouflaged; here the external walls have been covered with local flints in an attempt to disguise it as part of a building (Figure 22).

Figure 21. Typical stop line pillbox devoid of its original context, but originally intended to blend in with its surroundings. In late 1940 this example was to be camouflaged as a ‘chaff sheep hurdle or chicken house’.

Figure 22. Pillbox over the county border at Thetford in Norfolk, retaining its flint camouflage.

Other Stop Lines

On the remaining stop lines the concrete defences are not as well preserved as elsewhere and typically survive as single examples or small groups of pillboxes. On Line 'F' between Harleston and Blythburgh, for example, along the modern B1123, the somewhat haphazard location of the pillboxes indicates that 'F' was an arbitrary line on a map and that the men on the ground sited their defences to cover a general approach from the north, or more specific road junctions (Figure 23). On the Waveney Line in the area around Bungay and Beccles there is a tendency for an embrasure to be inserted at a low level in the pillbox wall, almost certainly to accommodate the Boys Anti-tank rifle, which in 1940 was the principal platoon-level anti-tank infantry weapon (Figure 24). The low-level loopholes betray unfamiliarity with the tactical use though, as in some cases it provided a perfect opportunity for attackers to shoot directly at the feet of the occupants. On the ground today there is virtually nothing left to indicate the presence of the E–F Switch Line, but one structure that does survive is a Type 22 pillbox off the road at Stratford St Andrew, which is the only clue today to the existence of the first defensive barrier back from the invasion beaches (Figure 25).

Figure 23. Map of pillboxes on Line F. In contrast with the Corps Line, Line F received very few pillboxes.

Figure 24. Extant pillbox near Beccles with low-cut embrasure for the Boys anti-tank rifle.

Figure 25. Pillbox at Stratford St Andrew: one of the few surviving monuments from the Back Line.

Manning the Lines

On 14 May 1940, soon after the beginning of the Battle of France, the Home Guard (initially known as the Local Defence Volunteers) was established as a part-time civil defence force. One of the most important Home Guard duties throughout the war was the manning of stop lines and the defence of nodal points. In the event of Action Stations, roadblocks would become active and defences manned. The popular post-war image of the Home Guard as 'Dad's Army' holds up for the early part of the war, but less so from 1941 onwards, when training and equipment improved dramatically. The defence of Nodal Points was only as good as the men tasked with defending them, their training and the provision of supplies. However, the evidence shows that most points were fully manned and that, by 1941, they were supplied with sometimes substantial quantities of equipment (Figure 26).

In October 1941 Yoxford, for example, was defended by thirty Home Guard (its required strength) and could also call on a further sixty-four from neighbouring villages and men from various regular army headquarter units billeted in the village. A similar situation existed at Saxmundham in July 1941, where the sixty-five Home Guard (the required strength) were supported with a further sixty-five from neighbouring villages. In other places the paper strength was less than required, but could be made up by men from adjacent villages. At

Figure 26. Men from the 6th Battalion Suffolk Home Guard. Men such as these were expected to man stop lines and nodal points in the event of invasion. (Suffolk Record Office)

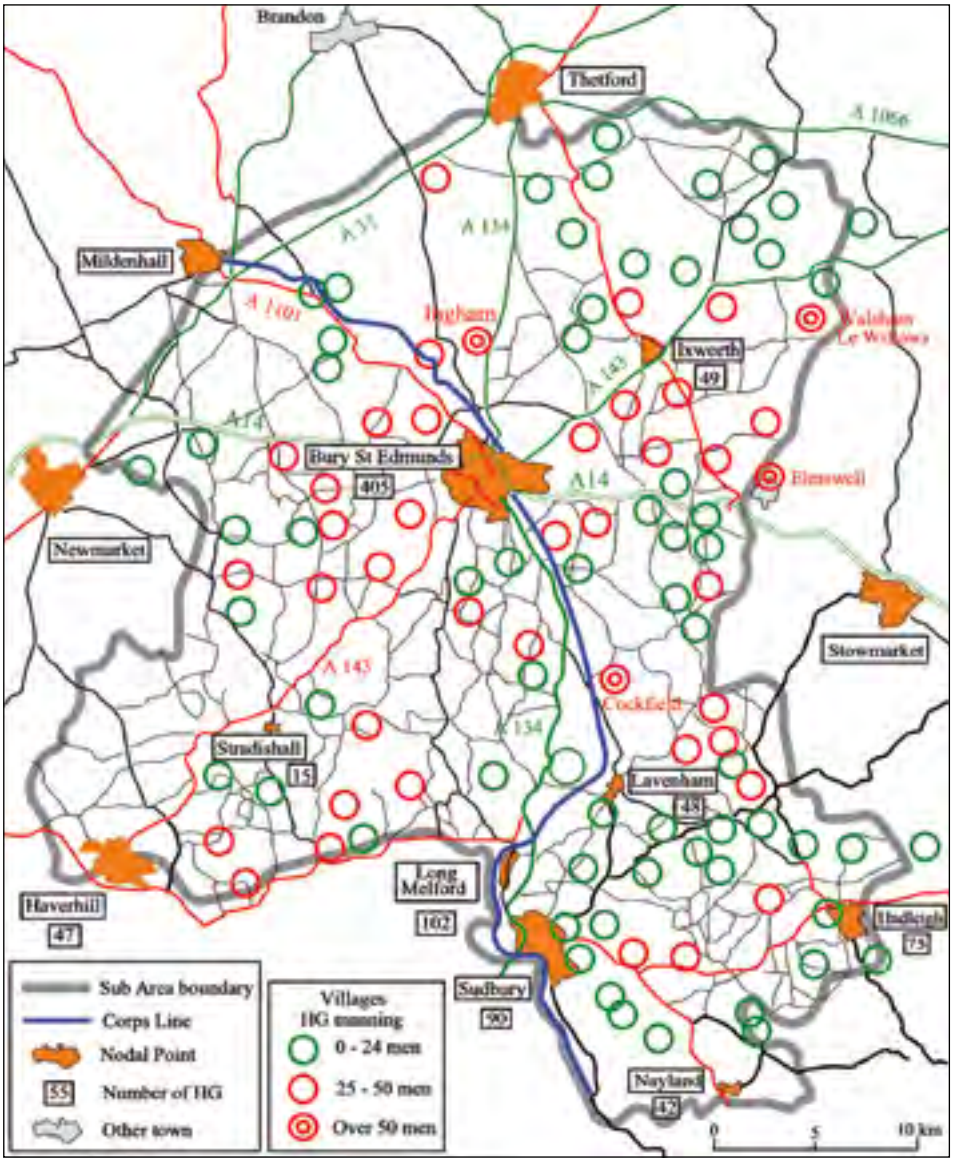

Figure 27. Map showing Home Guard strength in west Suffolk. While the level of equipment and training varied considerably, there was no shortage of numbers when it came to manning nodal points across the county.

Halesworth only forty-four out of the 120 Home Guardsmen could be mustered from the town, but again some ninety-six men were available from nearby places. Such was the coverage of local Home Guard units that there does not ever appear to have been a shortage of manpower for manning anti-invasion defences in the interior of the county (Figure 27). The mobilisation of the

whole countryside for war is also shown by the formation of village 'invasion committees', whose purpose was to co-ordinate the civilian response to a military emergency and make sure both that civil administration remained in place for as long as possible and that civilian authorities co-operated effectively with the military (Figure 28).

Figure 28. Orford anti-invasion committee, 1941. Such committees were established in order to co-ordinate the civilian response to a German invasion. (IWM D4847)

Interior Defence

In addition to the linear 'stops' and nodal points, some more unusual methods were also employed to defend the interior of the county. An armoured train patrolled the area of the Back Line between Wickham Market, Saxmundham, Halesworth and Aldeburgh. This was a heavily armed train which mounted two Vickers Machine Guns, two six-pounder anti-tank guns, two anti-tank rifles and six Bren guns (Figure 29). Further support was provided by improvised anti-tank guns. In May 1940, when imminent invasion was feared, the Royal Navy made available a large number of guns that had been removed from warships scrapped after the First World War and retained in store. The majority were assigned to the Emergency Coastal Defence Battery programme, but a number of smaller weapons were mounted on mobile and static mountings to be used as anti-tank guns. Over twenty four-inch guns were mounted on ten-ton lorries

Figure 29. Armoured train on patrol near Saxmundham in August 1940, showing rail truck with six-pounder anti-tank gun and bren guns in an anti-aircraft role. The smoke screen has been created deliberately by the driver and the area of lighter colour on the interior of the truck is yellow paint, which was to enable the occupants to detect German gas. (IWM H3043)

and organised into three eight-gun batteries, of which two were allotted to Eastern Command and manned by personnel from field and medium artillery regiments who were without equipment after the withdrawal from France (Figure 30). Dad's Army humour is provided, if desired, by these mobile anti-tank guns. The guns had a limited arc of forward fire necessitated by the fact that the recoil would have rolled the lorry over had the gun been fired at an angle. Oral testimony suggests that when one such gun was test-fired the lorry moved back 200 feet, such was the force of the recoil. The experiment with these improvised vehicles did not last long; in 1941 there are references to mechanical problems and their use seems to have been discontinued soon after.

Figure 30. Official War Office photograph of improvised mobile anti-tank gun, near Dungeness in Kent, taken 29 July 1940. The arc of fire was restricted so that the gun could only be fired directly ahead or behind in order to avoid the possibility of the recoil turning the vehicle over. Similar vehicles were in operation in Suffolk in 1940–41. (IWM H2570)

A Change of Direction, Autumn 1940

Just as the system of stop lines was beginning to take on a recognisable form, events at a national level took a different turn. On 20 July General Alan Brooke replaced Ironside as Commander of Home Forces, as it was felt that the former's recent experience of fighting the Germans in France made him a better candidate to direct Britain's anti-invasion measures (Figure 31). Brooke lost no time in stating that 'mobile offensive action should be the basis of our defence and static linear defence should be stamped out', thus signalling a rethink in British strategy. In truth, by the time Brooke took up his appointment there were more mobile reserves available to him and so (unlike Ironside) he had the luxury of being able to implement an alternative strategy, but nevertheless the change in tactical thinking was clear. The mantra

was now to guard against what had come to be called ‘Maginot Mentality’ – a reference to the French land defences that had been so spectacularly ineffective against the invading Germans – and, on the coast, the emphasis was now to be on ‘all round defence’, with self-contained ‘defended localities’, rather than the main focus of defence being a static ‘coastal crust’. These localities were expected to hold out even when bypassed by invading forces, the idea being that the newly strengthened now stronger mobile columns would swiftly relieve the defenders and drive the Germans back. Inland, while nodal points would continue to have a value, stop lines fell out of favour as an anti-invasion measure, as there was no need for miles of linear anti-tank obstacle when the now more numerous British armoured reserves were expected to rush to the coast to deal with the invader.

Figure 31. General Sir Alan Brooke, Chief of General Staff, 1942. After replacing General Ironside, Brooke instigated a major change in British anti-invasion strategy. (IWM TR153)

The Back Line

Brooke's more mobile strategy was the catalyst for a major change in the organisation of interior defence in Suffolk. In November 1940 XI Corps gave instructions to create what it called an 'Inner Defence Line', later known as the Back Line, which constituted, in effect, a second line of defences roughly parallel to the coast between four and ten miles inland (Figure 32). The new line was to comprise a series of defended localities

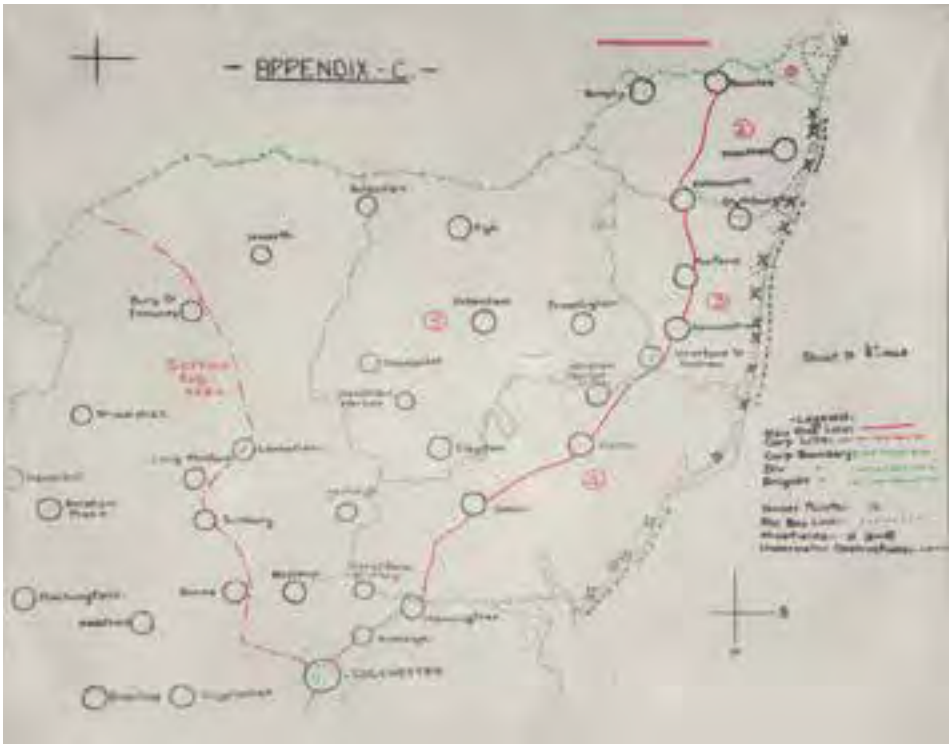

Figure 32. Map of stop lines in Suffolk, January 1941, from the Divisional Defence Scheme, showing the course of the new 'Back Line'. (The National Archives)

at key points that were to be surrounded by barbed wire obstacles. The defences were to comprise of well-dug and revetted trenches rather than concrete pillboxes. The purpose of this line was to 'stop the enemy from debouching from ports and beaches' and was to be manned initially by the Home Guard and reserves from the regular army units defending the coast itself, before being augmented by the Divisional reserve. The original intention was to provide the whole length of the line with a linear anti-tank obstacle, but in the event this was never constructed. Although the

Back Line was, in effect, a new line and required the building of new defences in the north and south of the county, it was chiefly formed from discrete parts of Line E and the E–F Switch Line, the existing defences being incorporated into the new scheme as and where necessary.

Apart from the creation of the Back Line, in Brooke's new strategy only the Corps Line, along with the GHQ Line, was to be retained. Both were to be 'converted as materials and weapons became available into defensive lines to be held by reserve formations as a last resort' and some anti-tank pillboxes were almost certainly converted for use by infantry at this time (Figure 33). The remaining lines either retained only a residual role or were

Figure 33. Anti-tank pillbox at Lavenham converted to infantry use by the blocking of the main embrasure. Subsequently the infantry loops were blocked up with bricks, probably at some date very late in the war.

abandoned completely. Along Line F between Halesworth and Harleston, for example, on all but one of the surviving pillboxes the loopholes have been blocked up, suggesting that as a whole, the line had fallen out of use, probably in 1941.

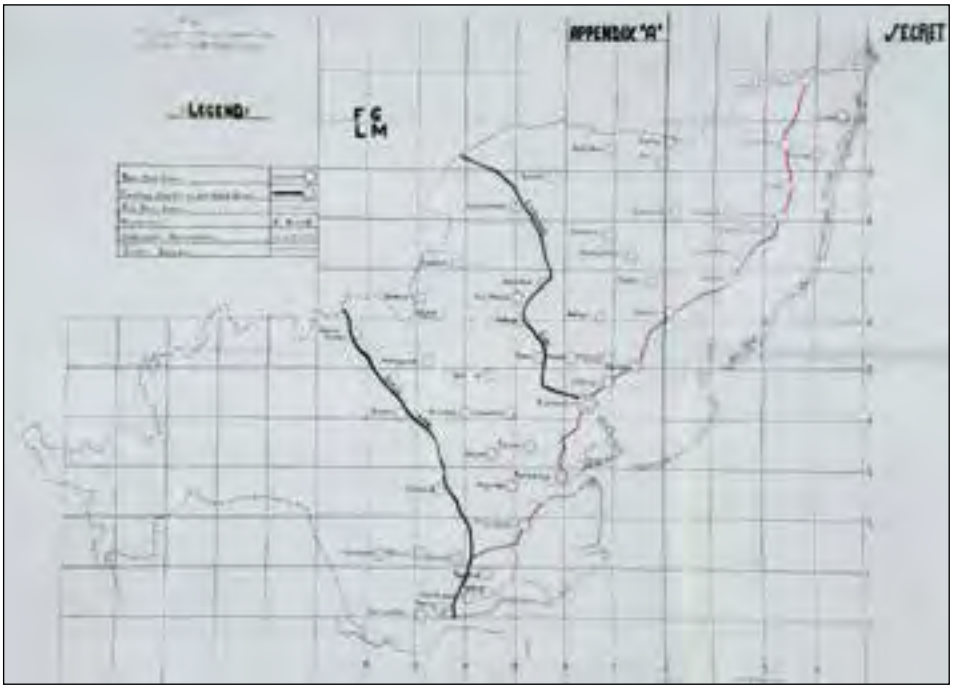

Figure 34. Map of stop lines in Eastern England, 1941. By this stage the only lines of any consequence were Line C (marked as the Command Line on the map) and the Back Line (on the map, the 'New Stop Line'). The nodal points remained, however, and it was these, rather than additional stop lines, that formed the basis of defence in depth.

Therefore, despite all the effort and resource put into their creation, by the beginning of 1941 only two of the original interior stop lines were now thought of as part of the defensive strategy, at least at Corps and Command level and higher (Figure 34). If enemy troops broke out from the beaches and started to advance inland they would still be impeded by 'all round defences of all nodal road centres' but, crucially, these villages were 'not to be considered as a series of defensive lines but as a defensive network designed to harass, delay and impede any enemy movement by road'. Thus the nodal points established in 1940 survived in Brooke's scheme only because they represented defence in depth; in effect, they were the interior equivalent of the coastal defence 'defended localities'. Several became earmarked for more elaborate arrangements which would allow them to hold out against tank attack for longer periods of time and thus form part of a series of strong points across the county.

Throughout 1941 the defences on the Corps and the Back Lines were steadily developed, principally by more elaborate schemes to block

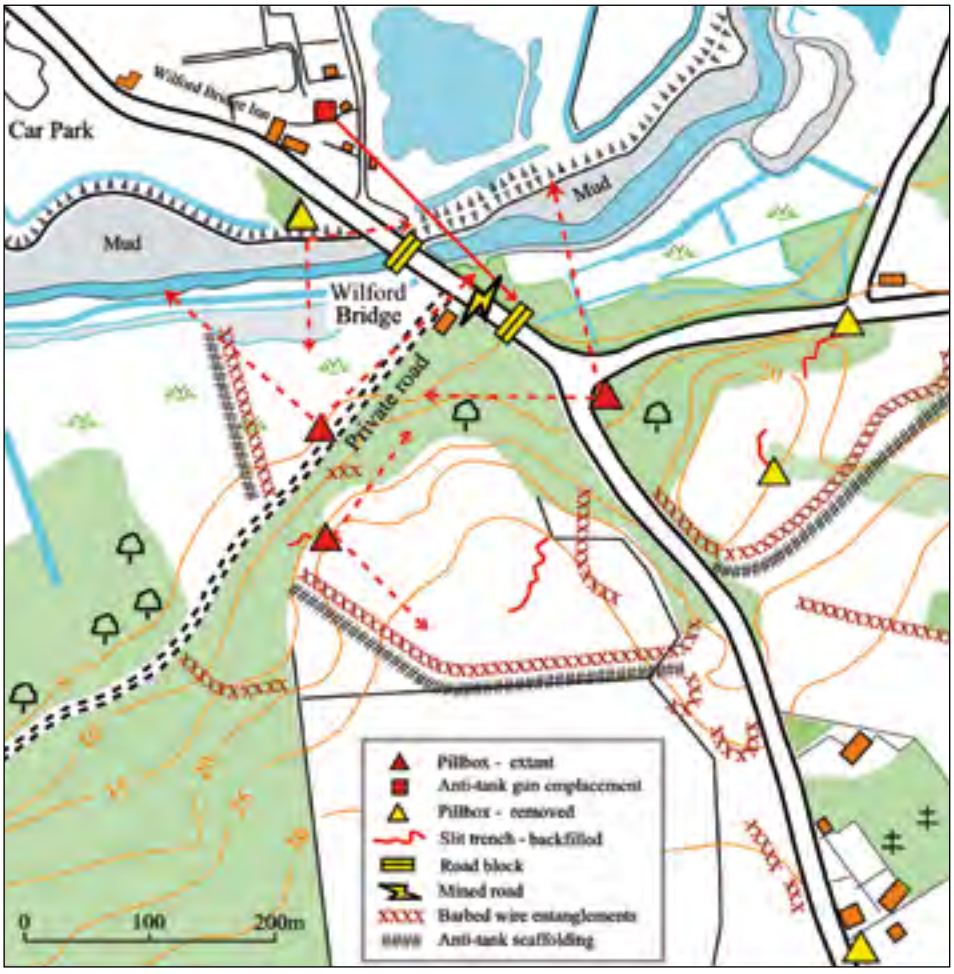

Figure 35. Plan showing defences on the Back Line at Wilford Bridge. The crossing of the river Deben near Woodbridge received its first defences in 1940 and these were upgraded in 1941, when the bridge formed part of the Back Line.

bridges and roads (Figure 35). A new weapon was the Canadian Pipe mine, which were pipes filled with explosives and buried on the approach to a crossing over a river or railway line. The crater that resulted from their detonation provided a suitable barrier to an armoured vehicle. One such device was tested in June 1941 near Westleton, where it made a hole some twenty feet wide and nine feet deep. An additional weapon extensively employed was the flame fougasse, a petroleum-fuelled weapon that blasted a sheet of flame across the immediate area. By the end of the year the whole of the Back Line was a heavily fortified demolition belt (Figure 36).

Figure 36. Part of the Back Line in south Suffolk, 1941.

Another weapon that started to appear in the defence landscape in 1941 was the spigot mortar, or 'Blacker Bombard', an anti-tank weapon that was commonly issued to the Home Guard. The spigot could be used in a variety of ways, but one of the most common was its placement on a concrete pedestal, where it was secured by a protruding metal rod. When used in a static role it was common for a surrounding pit to be dug for the crew of three to five men, and this was often reinforced with concrete that also provided lockers for the ammunition. Particularly on stop lines spigot mortar posts were combined with other defences, especially roadblocks (Figure 37).

Figure 37. Saxmundham Home Guard with spigot mortar, here being used in its mobile role, rather than mounted on a static pedestal. (IWM H12300)

The change in the perceived role of the two stop lines that remained was reflected in a tendency to refer to them as 'Check Lines', with the Back Line being known as the 'Forward Check Line', the Corps Line as the 'Centre Check Line' and the GHQ Line itself as the 'Rear Check Line'. The change in nomenclature was in part down to the fact that a series of check points existed along each line, which chiefly served for purposes of traffic control during 'Action Stations' rather than roadblocks as such. The new strategy was also reflected in the renaming of nodal points as 'Defended Localities'.

Nodal Points and Defended Localities

In Brooke's scheme nodal points assumed a greater significance to the overall strategy as places where the advancing enemy could be held up, casualties inflicted and defence prolonged. The instructions to the defenders were very clear: their posts were to be 'held at all costs and to the last'. If any German force chose to bypass such a stronghold then the defenders would be able to carry on the fight and would be expected to launch guerrilla-style raids if they found themselves behind enemy lines. Those places deemed to be particularly important were to be provisioned with supplies and ammunition for seven days, while those of lesser importance were expected to hold out for a minimum of three days. There was no minimum size for such a point and the county's two major towns, Ipswich and Bury St Edmunds, were ringed with defences (Figure 38).

Nodal point defences were sometimes surprisingly complex, although all shared common principles. They required 'all round defence' so that they could not easily be outflanked or taken from any direction. There was a fortified outer perimeter, usually made up of barbed wire and infantry positions and sometimes strengthened with pillboxes. The heart of the defence was a central position called the 'keep', from where resistance was co-ordinated and which also gave greater defensive depth and provided a final strong point for resistance. Nodal point defences developed over the course of the war, often from rudimentary beginnings (Figure 39) in 1940 through to the sophisticated strong points of 1942–43. It was also here that there was more likely to be continuity of use of the original fortifications, as nodal points, unlike stop lines, were less likely to be abandoned.

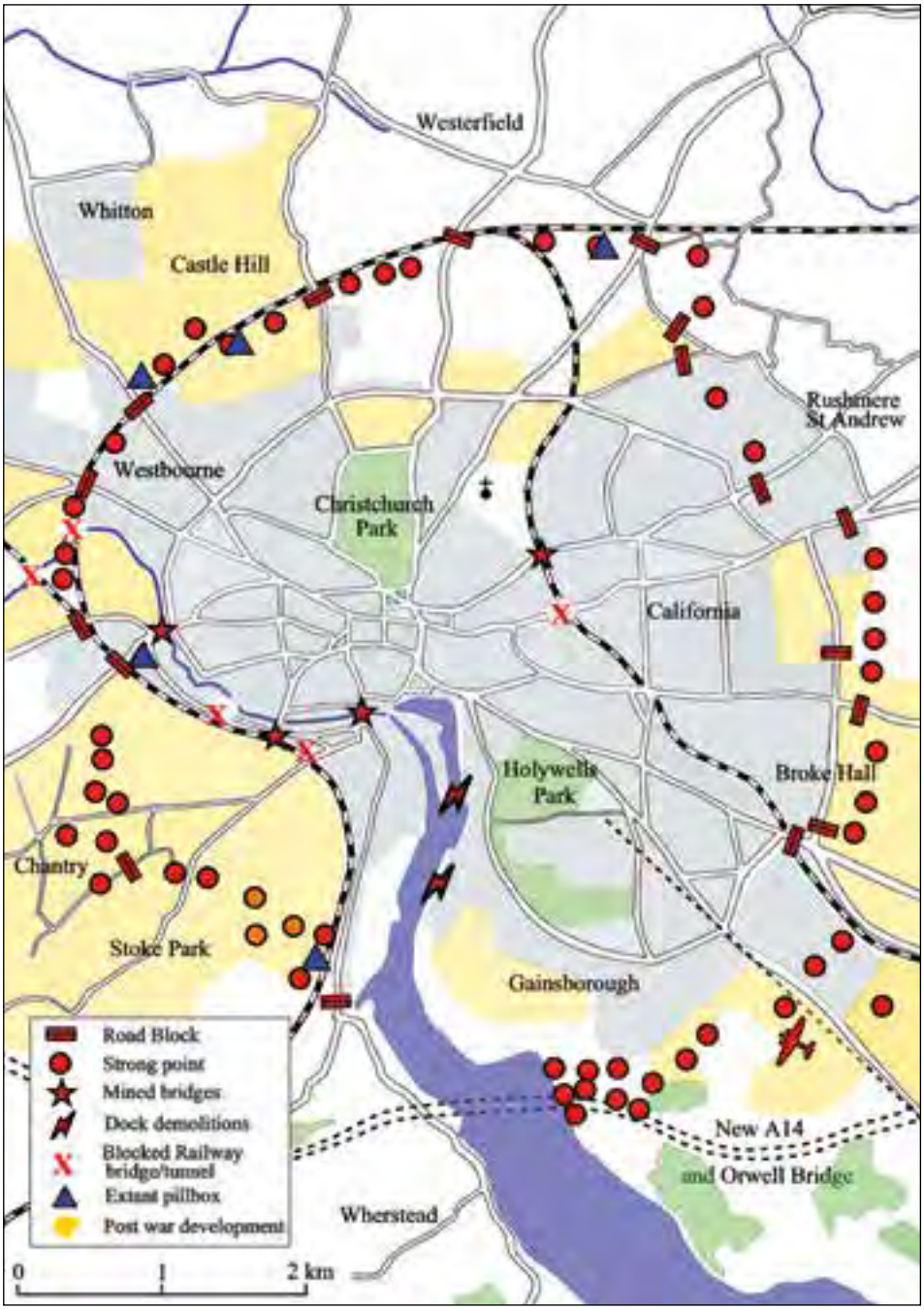

Figure 38. Plan of Ipswich's defences, c.1940. The town was effectively a giant nodal point and the form of its defences differed only in scale from those at smaller settlements.

Figure 39. Wartime plan showing the nodal point at Blythburgh in July 1940. At this stage in the war the defences were chiefly earthworks. (The National Archives)

Perimeter Defences

In the event of invasion, active patrolling, observation and liaison with other troops would have alerted the garrison of a nodal point that an enemy column was approaching. As with the stop lines, natural obstacles were incorporated into the defences as much as possible, with rivers and railway embankments frequently used to mark the perimeter. Where no such barrier existed long runs of barbed wire were erected, as at Ixworth, where the majority of the outer defence was marked by a continuous wire obstacle (Figure 40). In the case of Bury St Edmunds a decision was taken to make the urban area tank-proof and so anti-tank ditches were excavated around the central part of the town (Figure 41). At Leiston the defence was made unusual by the inclusion of six twelve-pounder naval guns that provided anti-tank fire on the major approaches; here the unique arrangements were connected to the presence of the Garretts factory, which had an important role in producing war-works (Figures 42 and 43). In addition, it was not uncommon to construct minefields along the perimeter belt or in places where it was thought a roadblock would be bypassed by oncoming vehicles. These were sometimes extensive, as

Figure 41. Plan of Bury St Edmunds' defences.

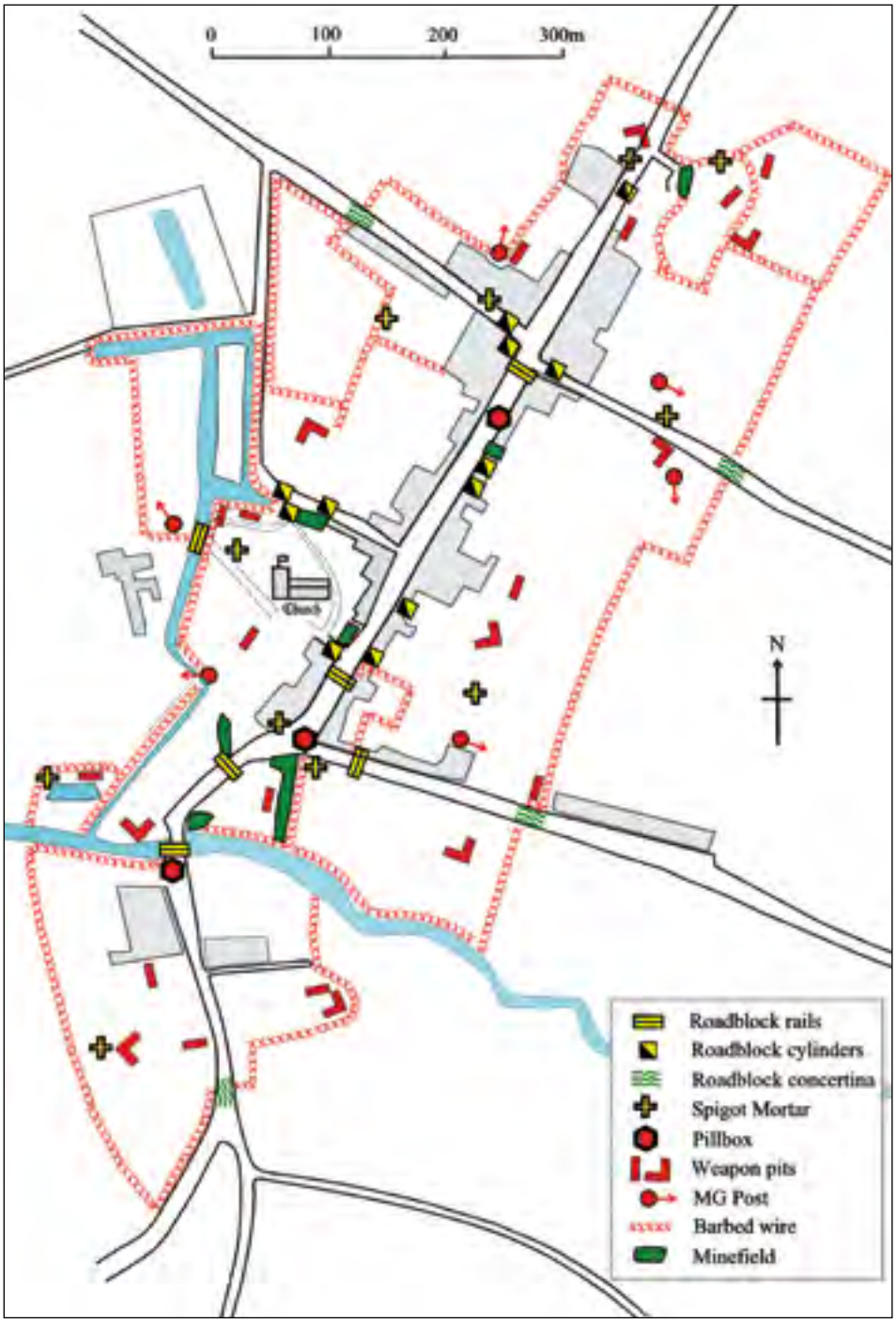

Figure 40. Plan of the nodal point defences at Ixworth. See also Figure 46.

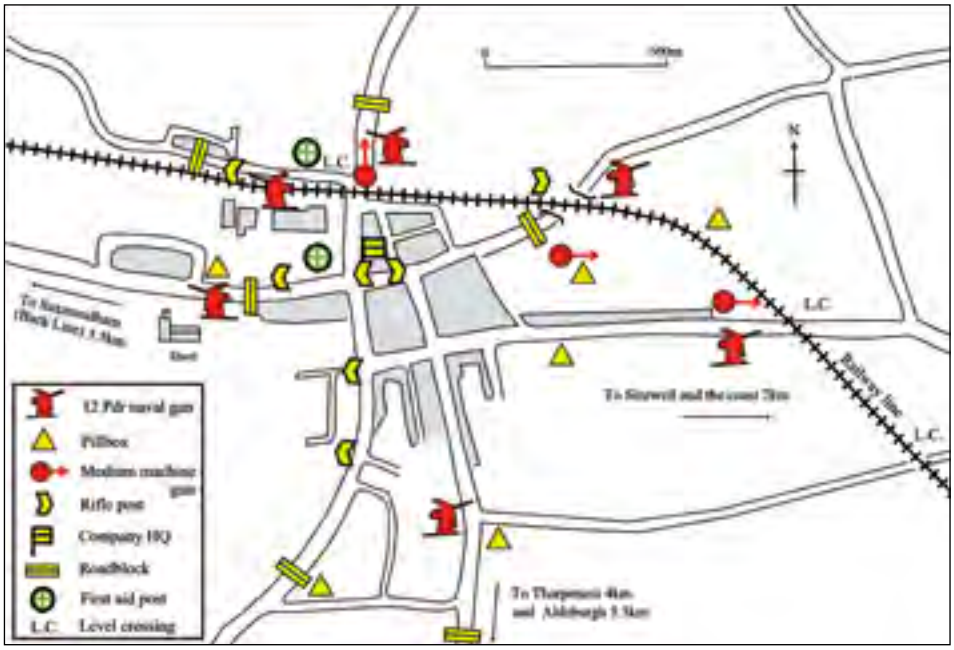

Figure 42. Plan of Leiston's defences.

Figure 43. Photograph showing one of the twelve pounder guns used for anti-tank defence at Leiston. (Beyer Peacock & Co Ltd, 1945)

at Needham Market, where they covered the approach to both ends of the village. (Figure 48)

Wartime plans show that outer perimeter defences could be covered by fire from large numbers of infantry positions, which often included concrete pillboxes. Where nodal points stood on stop lines the numbers of pillboxes could be considerable, as at Bury St Edmunds, where the Corps Line ran along the eastern part of the defences, with pillboxes placed at regular intervals. In other places there were fewer and today survivals are rare; one still extant at Saxmundham is shown in Figure 44. From 1941 spigot

Figure 44. Extant pillbox at Saxmundham, the last survivor from the nodal point defences.

mortars became a feature of defences alongside more unusual devices such as the Smith Gun and the Northover Projector – both rather ineffective and semi-improvised anti-tank guns (Figure 45).

Figure 45. Saxmundham Home Guard receiving instruction in the use of the Northover Projector. (IWM H12296)

Inner Defences and Keeps

Had any attacking German force broken through the outer defences they would have then encountered a mass of further obstacles again intended to hold them up for as long as possible. The open spaces of village greens and former market places were obvious areas that needed to be swept by fire and so were often furnished with pillboxes, hardly any of which remain today, but which sometimes appear in wartime photographs (Figures 46 and 47). These pillboxes were carefully placed to give fields of fire up the principal streets and across the main approaches. The keep at Needham Market encompassed the northern end of the village, thus incorporating the parish church, possibly because this would have been an excellent vantage point. This whole area was a self-contained fortification totally surrounded

Figure 46. A rare photograph of a pillbox at Ixworth situated at the road junction to the south of the parish church and camouflaged as an outbuilding. This image is taken from film footage shot by a RAF serviceman stationed nearby. (East Anglian Film Archive)

by barbed wire and with its own roadblocks. Clearly it was expected that any battle would go well here, as two cages for POWs (one for officers and the second for other ranks) were placed inside (Figure 48).

Figure 47. Photograph taken in 1944 of a pillbox in the centre of Framlingham, from where the occupants would have defended the heart of the nodal point. By this stage of the war all thought of German invasion had disappeared. (Ipswich Record Office).

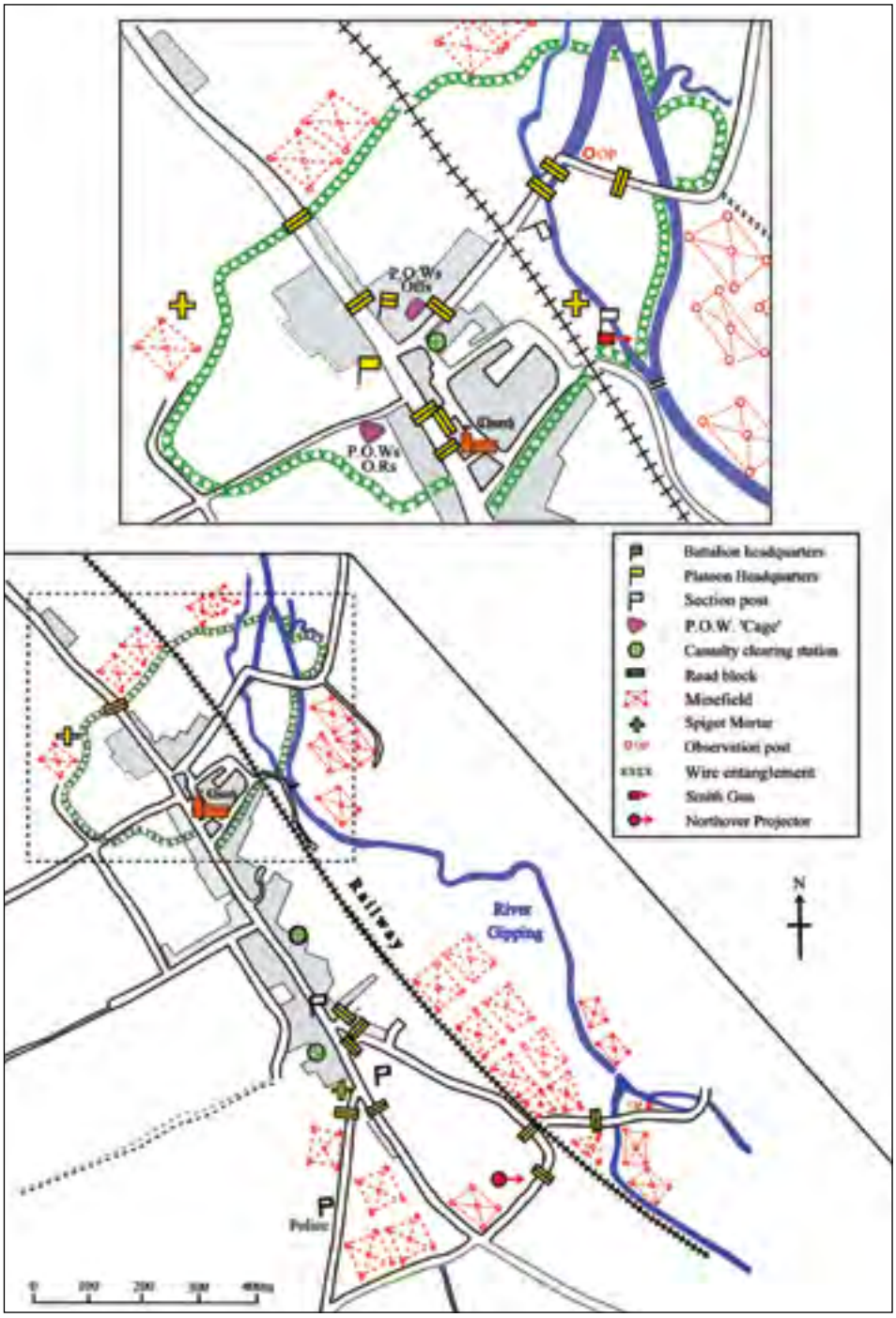

Figure 48. Plan showing the nodal point defences at Needham Market.

Roadblocks

Perhaps the most important part of the defences were roadblocks, which, if ineffective, would have rendered nodal points useless. One difficulty was that any roadblock had to not only prevent the entry of enemy vehicles but also allow the passage of friendly traffic either moving up to the front or retreating from an enemy advance. Temporary roadblocks of barbed wire could be easily moved, but permanent roadblocks presented more of a difficulty. Simple roadblocks could be formed by concrete obstacles, with more sophisticated designs involving large concrete buttresses placed on either side of a road and incorporating sockets into which horizontal steel poles or short sections of railway track could be placed to block the road. An alternative was to place sockets into the road itself, into which short vertical lengths of girder could be inserted. The steel could also be bent or welded so that it lay at a 60-degree angle, known as a hairpin, which could then be slotted into pre-prepared squares dug in the road. Such defences had the obvious advantage of allowing friendly traffic to use the road, as the steel rails were placed across to form a barrier only when necessary (Figures 49–51).

Figure 49. Although in Norfolk, these photographs taken at Sheringham give a good idea of how concrete blocks could be combined with wooden and barbed wire obstacles to make a roadblock. Roadblocks such as those shown here were an important part of stop line defence. (Imperial War Museum, H2709)

Figure 50. Steel rails being inserted into sockets in the road to create a roadblock. (Imperial War Museum, H2708)

Figure 51. Rare surviving example of a ‘hairpin’ obstacle on the Corps Line at Mount Bures, Essex. This was a common device seen on both stop lines and in nodal point defences.

From the point of view of defence, roadblocks would ideally take advantage of any natural anti-tank obstacles, would create some element of surprise by being placed on a bend, would have any detours around them covered by other defences and would be able to be covered by fire. The existence of a nearby place from where a group armed with petrol bombs could emerge and attack enemy vehicles was an added benefit. To a greater or lesser extent, these ideals were put into practice on the ground. Pillboxes were often placed near to or adjacent to roadblocks (Figure 52) to give fire and cover for a petrol bomb party

Figure 52. Pillbox on the outskirts of Beccles that was built in 1940 but continued to be used up to 1942, when it formed part of the nodal point defences.

if there was no immediate house that was suitable. At Bury St Edmunds anti-tank guns covered the two roadblocks situated on the two approaches from the east. The interior of nodal points were also furnished with further roadblocks. At Saxmundham one piece of the concrete obstacle that once formed part of a roadblock leading into the town still remains in a private garden (Figure 53), while at Needham Market a collection of concrete cylinders now used to bolster the riverbank was once part of a roadblock (Figure 54). By 1942 wartime plans show that Canadian pipe bombs and flame fougasses were

Figure 53. Part of a concrete roadblock now in a private garden at Saxmundham.

commonly found in nodal points and placed on the approach to roadblocks as well as along the Back Line (Figures 55–56). It also needs to be remembered that the bridges themselves were scheduled for demolition, so, when taken together, there is little doubt that time could have been bought by the defenders and vehicles held up for a considerable time.

Figure 54. Needham Market. Concrete cylinders from a wartime roadblock now with a new lease of life as protection for the river bank.

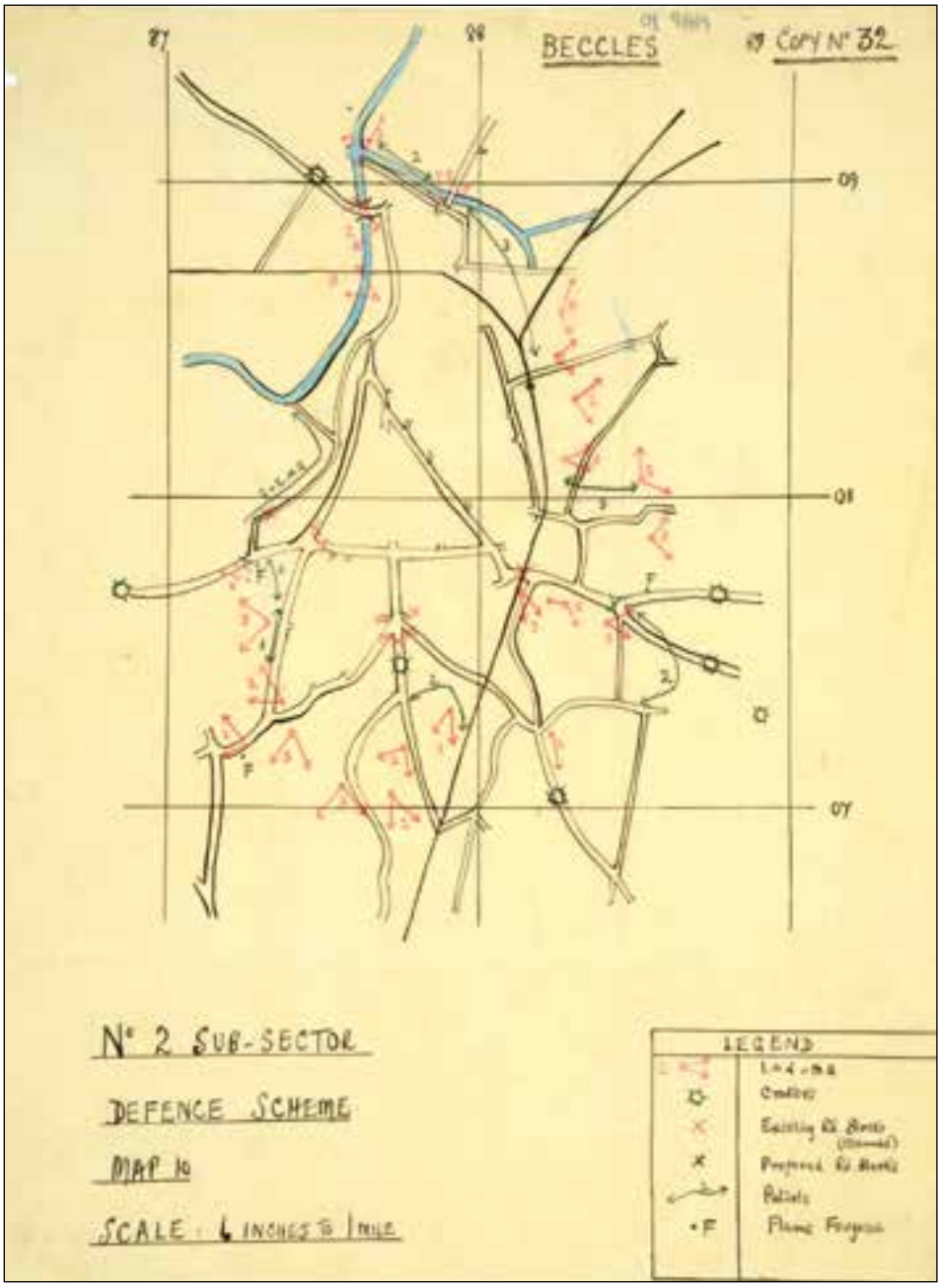

Figure 55. Defence plan of Beccles from 1942, showing roads to be cratered, infantry positions and routes of patrols. (The National Archives)

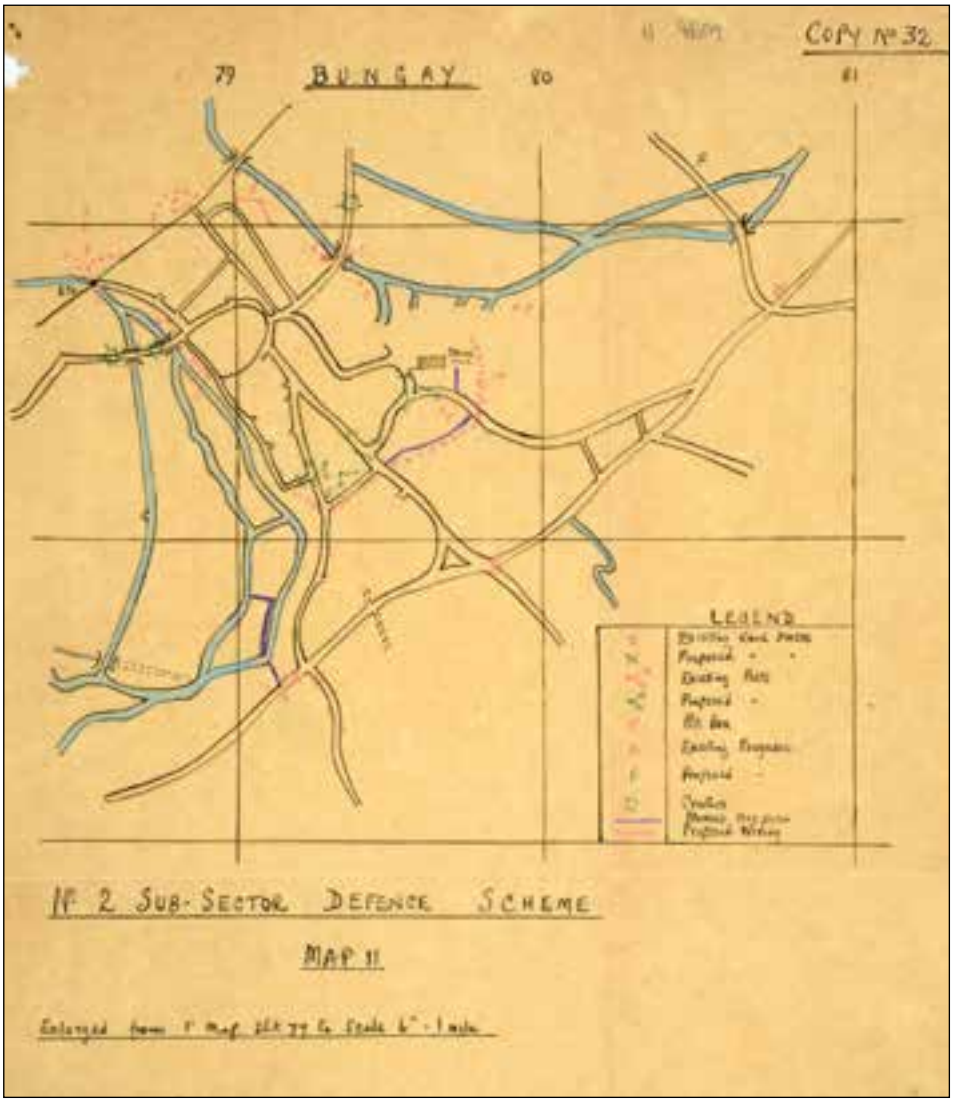

Figure 56. Bungay defence plan, 1942. Even at this stage of the war consideration was given to increasing the nodal point defences. Here proposals to create new anti-tank ditches are shown. (The National Archives)

How nodal points would have fared in the event of invasion is, of course, unknowable. In some modern conflicts, however, the vulnerability of armoured vehicles in urban areas has been graphically highlighted and it is not hard to imagine how difficult it would be to drive a Second World War tank through some of Suffolk's villages, with their narrow roads and sharp bends, even without having to negotiate anti-tank guns, petrol bombs, roadblocks and craters.

Final Role, 1942

Despite Germany's heavy involvement on the Eastern Front, British planners continued to guard against the possibility of some kind of military operation directed against the United Kingdom until the middle of the war and anti-invasion defences were maintained. No new work was put in hand on the two remaining Suffolk lines during 1942, but their defences were maintained and steps taken to avoid damage by occurrences such as flooding.

In the spring of 1943 Eastern Command wrote a detailed appreciation of any German invasion of England, with the premise that such an undertaking would be a desperate gamble intended to offset military failure elsewhere. While it conceded the utility of demolishing bridges along the rivers Yare and Bure in Norfolk, it abandoned all ideas of using stop lines as part of an anti-invasion strategy. The lines had had their day.

How Would Stop Lines Have Been Used?

Suffolk's stop line defences were, of course, never put to the test, but elaborate instructions were laid down as to how they were to be used in the event of a German landing on the east coast. The question is most relevant to 1940, when the invasion threat was at its greatest.

In theory, troops from various units and commands, as well as the Home Guard, could potentially make use of the stop lines. In 1940 national reserves were available from General Headquarters (GHQ), in East Anglia and the east Midlands there were reserves belonging to Eastern Command and XI Corps, while in Suffolk there were those from 55 Division as well as from units further down the chain of command.

At the Divisional level, which in practice equated to Suffolk, 55 Division split its reserves into two groups, 'A' and 'B'. Both comprised a miscellaneous collection of units that were understrength or were not front-line troops, such as pioneers and training battalions. In the event of enemy action these reserves were expected to deal with paratroops who had landed behind the lines, to form a defensive flank or to man stop lines. Divisional Reserve 'A' were to hold Stop Line 'E' from Ipswich to Harleston, while Divisional Reserve 'B' were to hold Line 'D' from Stowmarket to Euston. Both these groups were incapable of taking any offensive action and so were instructed to hold their lines with the help of

the Home Guard until reinforcements appeared or until they were ordered to advance to help stabilise the area further forward. Similar arrangements existed for the Waveney Line. Here the two reserve groups of neighbouring 199 Infantry Brigade were required to take up defensive positions along the line to meet any threat from the north or north-west.

In contrast, the XI Corps and Eastern Command Reserves were of greater strength (some two brigades and a Division respectively) and their role was to counter-attack any enemy force that had been landed by air or was advancing inland from the sea. Here the Corps Line and Line 'D' were intended to act as boundaries for British units moving up, as it was anticipated that, by the time the reserves were being committed, the movements of the German landing force would be known.

At the highest level was the GHQ reserve, which, if used in 1940, would have indicated a dire situation as far as the British were concerned. This comprised one armoured and one infantry Division (in Northamptonshire and Hertfordshire respectively) who could move into East Anglia. On receipt of the codeword 'George' they would assemble in the Thetford area in response to an invasion between Aldeburgh and Lowestoft, while 'June' would see them concentrate further to the south if the Germans took Harwich. Interestingly, the armoured component, the 2nd Armoured Division, was intended not to meet the Germans head on but rather to be used as a mobile force directed 'against the enemy's flank and rear, with a view to striking as far back as possible, disrupting his rear organisations and L[ines] of C[ommunication] and destroying his bases'. An important secondary role, however, was the 'occupation and defence of' the GHQ and Corps Lines until the troops could be withdrawn to act once again as mobile reserves.

Would Stop Lines Have Worked?

The eventuality for which the stop lines were built never occurred and so any attempt to evaluate their potential effectiveness is counterfactual. It is now known that Operation Sealion would have seen German landings on the south coast of England and so, had it happened, a German invasion would probably not have involved East Anglia's stop lines at all.

The balance of academic opinion is that, in all probability, Britain's anti-invasion measures would have worked and that Sealion would have failed. While a substantial number of German troops could have landed on the

south coast, the Royal Navy and Royal Air Force would have inflicted a heavy toll on the invaders and those that did make their way ashore would soon have found themselves cut off from their supply lines in Europe. From that point on, the advantage would have firmly been with the British.

During the 1970s the Royal Military Academy, Sandhurst ran a wargame-type simulation which explored the possible course of military events during an invasion of Britain in 1940 and concluded that German columns pushing inland from invasion beaches on the south coast may not have reached much further north than mid-Sussex. The combination of the coastal crust defences, stop lines, nodal points and a determination to resist on the part of the defenders would have ensured that Britain did not suffer the same fate as other nations. But the last word is probably best given to Allan Brooke, who reflected after the war:

> I considered the invasion a very real and probable threat and one for which the land forces at my disposal fell far short of what I felt was required to provide any degree of real confidence in our power to defend these shores. It should not be construed that I considered our position a helpless one in the case of an invasion. Far from it. We should certainly have a desperate struggle and the future might well have hung in the balance, but I certainly felt that given a fair share of the fortunes of war we should certainly succeed in finally defending these shores.

What is left of Suffolk's stop lines stands as an important material legacy of a time in British history that is at the time of writing so near in time and yet so far from the imagination (Figures 57 and 58).

Walking the Corps Line

The vast majority of stop line archaeology in Suffolk now lies on private land or in places that are difficult to access. The three pillbox trails below are exceptions, as well as being pleasant country walks in their own right. All three are along stretches of the Corps Line, which, as this was Suffolk's most heavily fortified line, makes for some interesting archaeology. This said, many of the pillboxes are on private land and cannot be approached closely, although they can all be seen from public footpaths. Pillboxes can be dangerous structures and walkers should not enter them; those who choose to do so enter entirely at their own risk. As always, keep dogs on leads and take your litter home.

Figure 57. This pillbox stands in what is otherwise an idyllic scene, and is the only reminder of that fact that only seventy years ago this stretch of the Corps Line was heavily defended.

Figure 58. A message of defiance: this pillbox near Stowlangtoft provides a rare glimpse of the threat under which Suffolk's pillboxes were constructed.

Sudbury Pillbox Trail (Figures 59–60)

The Sudbury area provides an excellent example of stop line defence, with the river Stour forming the main anti-tank obstacle. All bridges across the river were guarded by roadblocks and, as a last resort, had been prepared for demolition by explosives. Concrete pillboxes were constructed close to the riverbank to protect defending troops as they held the stop line on the approach of the enemy. The old railway line and its embankment (now a designated footpath, The Valley Walk/ Trail), together with anti-tank trench positions, long since gone, formed a second line of defences.

This walk, which incorporates sections of the Gainsborough and Stour Valley Trails, takes in twelve pillboxes and an anti-tank emplacement and goes over or passes close to five important river crossings.

As the distance is nearly three miles (5km) it might be possible to avoid the return journey by using two cars: there are large car parks at each end of the walk, at the Leisure Centre and at Rodbridge respectively. The walk can also be split at Brundon Mill and, while the car park there is small, others are available in the town or around The Croft. This is a delightful scenic walk across unspoilt grazing meadows; further information, particularly on the wildlife, is available on various websites, including discoversuffolk.org.uk, and from Sudbury Tourist Office.

The car park at Sudbury Leisure Centre is a good place to start. Make your way to the start of the Valley Walk, next to the Play Centre.

1. A pillbox can be seen across the river. This is a typical Corps Line pillbox. Although almost certainly designed by Royal Engineers based at Colchester, this type is often described as a modified Type 27, in this case with shell-proof walls and a central well for mounting a machine gun in an anti-aircraft role.

2. Here the railway bridge crosses a short arm of the river Stour. This bridge was prepared for demolition and manned by ‘E’ Company 10th Battalion Suffolk Home Guard. Soon after the bridge take the path on the left down to the river bank for a good view of No.3.

Figure 59. Sudbury Pillbox Trail. Map 1.

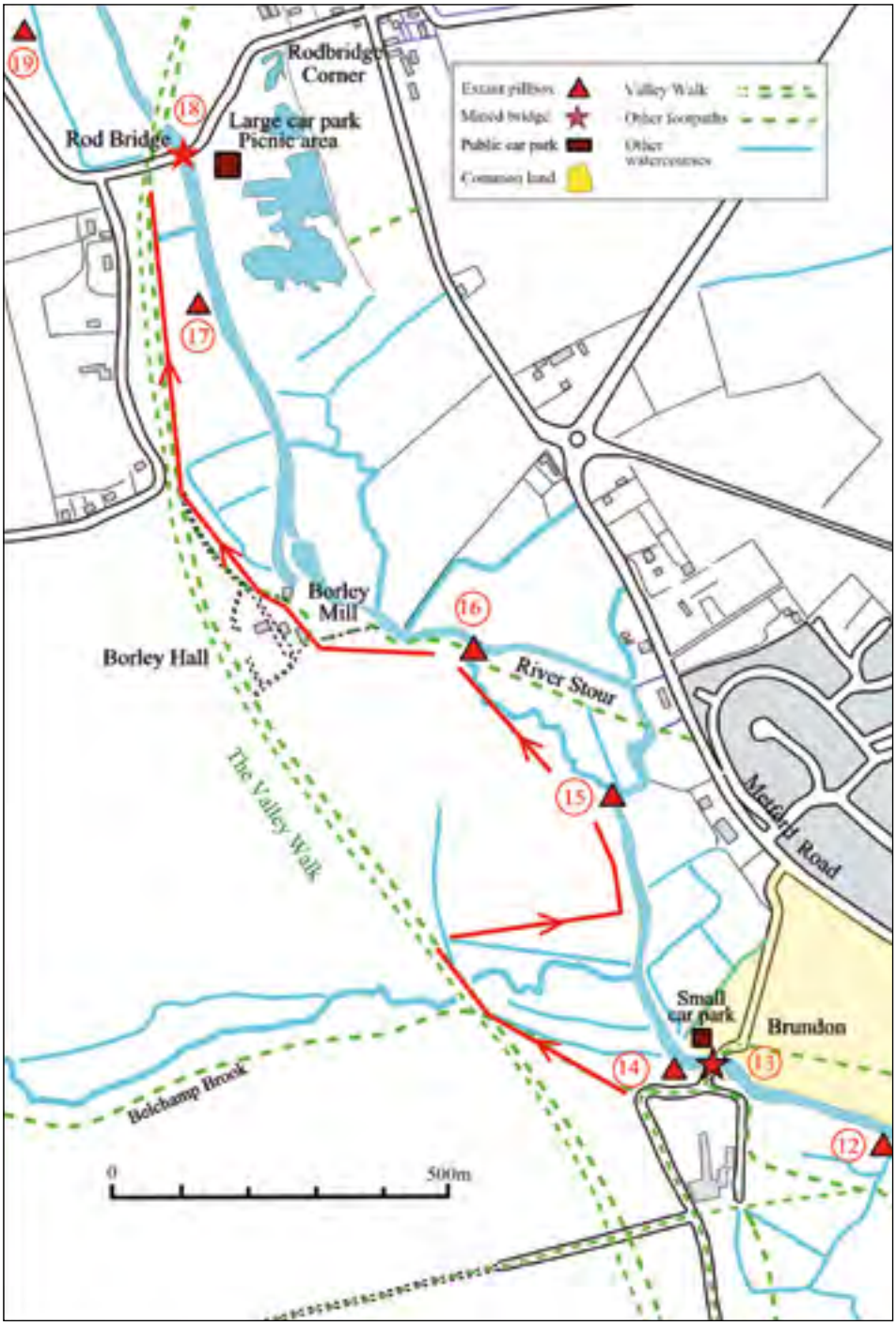

Figure 60. Sudbury Pillbox Trail. Map 2.

3. Another Type 27 pillbox with shell-proof walls and a central anti-aircraft well. This pillbox is situated on the other side of the river, about 40 metres behind the south bank.

4. Railway bridge crossing the river Stour. The bridge was prepared for demolition by 228 Field Company Royal Engineers and manned by 5 Company 10th Battalion Suffolk Home Guard.

5. Another pillbox, in this case situated close to the bridge, but completely covered in ivy. Carry straight on along the embankment to the railway bridge over Ballingdon Street.

6. On the right is Ballingdon Bridge. Although the present bridge is modern, it marks the historic site of a major road bridge crossing the Stour that provided an important route in and out of the town. In 1940 a roadblock was established here and manned by 5 Company, 10th Battalion Suffolk Home Guard armed with two light machine guns and a six-pounder anti-tank gun. The bridge was also prepared for demolition by 228 Field Company Royal Engineers.

Leave the embankment at the site of the Gainsborough Trail interpretation board, drop down the path and then turn left to walk past the Edwardian Pumping Station and through the gate onto King's Marsh. Bear right to the river bank and then look behind you to see No. 7.

7. Here an anti-tank gun emplacement that remains in a private garden can be viewed at close quarters from the river bank. The large embrasure had been bricked up but has since been partly knocked down. This emplacement was sited here to cover Ballingdon Bridge, although it does not face it directly but rather points a little to the north. This is an important and rare survivor of the kind of anti-tank pillboxes built along the Corps Line.

8. Walk across King's Marsh, keeping the river on your right. Just ahead of the bridge over the river is another modified Type 27 pillbox with shell-proof walls and a central anti-aircraft well; it is now partly covered by vegetation and serves as a bat hibernacula. Cross the bridge onto what is now Sudbury Common Lands Nature Reserve and either follow the river or follow the path leading across the reserve to another bridge below the Floodgates Pool.

9. Cross the bridge and walk across the Common, looking to the left to see another modified Type 27 with central anti-aircraft well, but with walls only 15 inches thick – this is one of the few pillboxes in the area with walls thick enough to withstand only small arms fire. It is situated to the west of a secondary channel of the river and although not accessible can be viewed from the path.

10. The path leads to Fulling Pit Weir where a bridge crosses a secondary channel of the Stour. On the bed of this channel approximately eighteen anti-tank cylinders can be seen, removed from their original location and placed here to help reinforce the riverbank.

11. Follow the public footpath which runs next to another modified Type 27 with shell-proof walls and central anti-aircraft well. This pillbox lies just across the bridge and is on private grazing meadows, but a good view can be gained from the footpath. Here the size of the shell-proof pillboxes on the Corps Line can be appreciated. The facing brickwork would have originally been on all sides of the pillbox, but where it has fallen away the internal concrete can be seen.

12. As you follow the path another modified Type 27 with central anti-aircraft well, again with thinner walls, can be seen on the right.

13. Follow that path around the wall of Brundon Hall to Brundon Mill and a minor road which crosses a bridge beyond the Mill. This bridge was prepared for demolition by 228 Field Company Royal Engineers.

14. Follow the road to the left of the Mill. There is a modified Type 27 pillbox with shell-proof walls and central anti-aircraft well can be seen in the undergrowth. This is now a bat hibernacula and is on private land.

15. Follow the road and then the path back to the embankment and the Valley Walk. Soon after crossing Belchamp Brook, bear right through a gate and follow the path that leads back to the river. On reaching the river bear left and follow the river edge path, which leads to another modified Type 27 pillbox with shell-proof walls and central anti-aircraft well.

16. The path then leads north, past another modified Type 27 with shell-proof walls and central anti-aircraft well. Follow the path towards Borely Hall and bear right through a gate onto a path between the Hall and Borley Mill. At the end of this path follow the public footpath signs that lead back to the Valley Trail.

17. Follow the embankment that makes up the Valley Trail and soon after look right and in the adjacent field here too is another modified Type 27 pillbox with central anti-aircraft well.

18. The path leads to the river crossing at Rod Bridge, which was mined for demolition during the war.

19. To the north of the bridge may be seen the final modified Type 27 pillbox with shell-proof walls and central anti-aircraft well so typical of this part of the Corps Line.

At the end of the route and adjacent to Rod Bridge is a large car park with picnic area and public toilets. The quickest way back to the Leisure Centre is along the former railway line, along which were a series of anti-tank gun positions, all trace of which has since been removed.

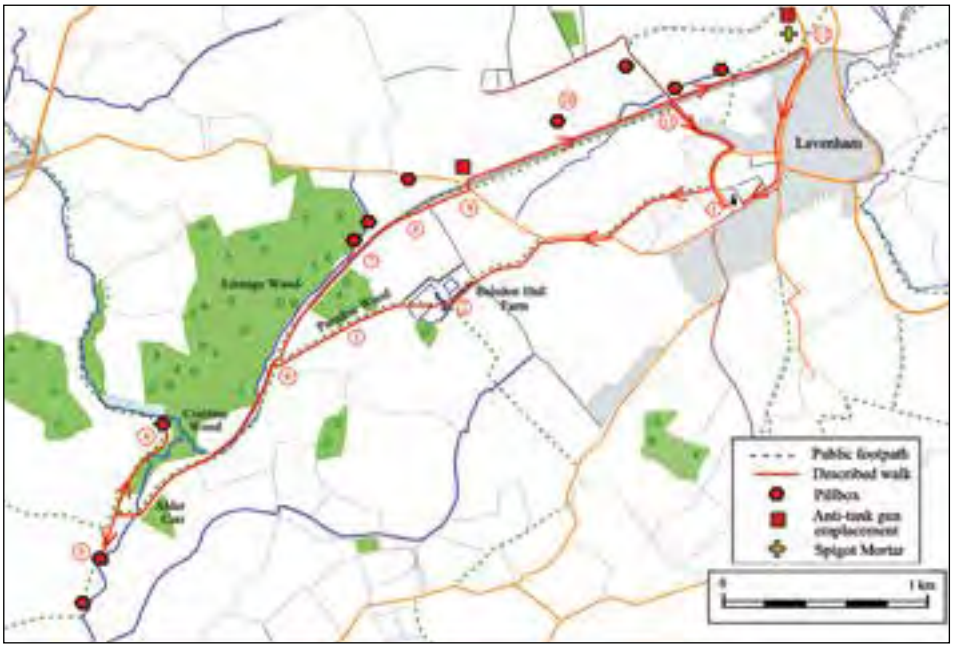

Figure 61. Lavenham Pillbox Trail.

Lavenham Pillbox Trail (Figure 61)

Lavenham is a charming market town well known for its fifteenth-century timber-framed buildings and fine parish church set within the beautiful Suffolk countryside. The Corps Line ran a little to the north of the town, along the line of the former railway, which now serves as a long-distance footpath. There are numerous places to park in the town, but for this walk a convenient starting point is the parish church, which is well worth a visit in its own right.

1. From the church take the quiet lane that leads to the north and then head west along the public footpath onto Bridge Street Road.

2. Follow this road north for a short distance before turning left along the public footpath. Follow this path past Balsdon Hall Farm, which retains some impressive medieval moats.

3. Continue along this path past Paradise Wood and go downhill towards the former railway embankment and watercourse in the valley bottom. These features mark the Corps Line, which was first built in 1940.

4. The walker now has a choice. The dedicated pillbox spotter needs to turn left and walk along the line of the embankment, while a shorter walk can be taken if the walker turns right, in which case proceed to No. 7 below.

5. Follow the path south past the Alder Carr, cross the river and, emerging into the field beyond, turn left and follow the footpath south along the wood edge. Approximately 100m ahead is a pillbox, now slowly being engulfed by the neighbouring woodland. This is a Type 22 pillbox, which start to appear along the Corps Line in this part of the county. This example retains its steel gunloops and has a fine blast wall covering the entrance. A little further on is another pillbox, but this time a Type 27 so typical of the Corps Line as a whole.

6. From here retrace your steps, but follow the path towards Crabtree Wood. Before reaching the small brook beyond, which is private land, another pillbox can be seen, this time a modified Type 27 which originally overlooked the river. Once again retrace your steps, this time all the way back to the railway embankment and No. 4, above.

7. Towards the end of the wood a well-preserved pillbox stands on the left. This is again a modified Type 27, but this example includes the central mounting for an anti-aircraft machine gun. Two more pillboxes of the same type can be seen in this field, and the three together give a good idea of how heavily fortified this part of the Corps Line was during the war.

8. The next section of path is well managed by the National Trust and along this stretch the value of the railway embankment as an anti-tank ditch can clearly be appreciated. A shady walk along the bottom brings this home, but a better idea of how the line was to be defended can be gained by veering left and taking the path along the top of the embankment, which enables the walker to see both pillboxes and anti-tank obstacle together (Figure 62).

Figure 62. The Lavenham Pillbox Trail. Along this stretch of line it is easy to see how the railway embankment and concrete defences were combined in order to create an effective anti-tank obstacle.

9. Further along the path, where the road bridge crosses the embankment, leave the path and go onto the bridge. Immediately adjacent and now partially buried in undergrowth is a Type 28 anti-tank pillbox. This originally defended the road crossing and would have had a field of fire to the south; it was intended to stop German vehicles breaking out of Lavenham itself. The main embrasure has been blocked up, however, almost certainly in 1941, when it was converted for use by infantry. A short distance to the north (away from Lavenham) is another Type 27 set back from the bridge, but covering the road.

10. Continue along the former railway, either along the line of the cutting or on the field edge. On the left is another Type 22 pillbox; the soil on its roof is part of the original camouflage scheme.

11. At Park Road leave the path and turn right onto the road, which makes for an easy walk back to the church. Alternatively, head left up the road for a short distance, as this route leads past a Type 22 pillbox on the right and then another of the same type on the corner of the road. Retrace your steps back to the bridge, rejoin the path and carry on. On the left another Type 27 can be seen in the field. Follow the path until you reach the main road.

12. Just to the north of the road junction, now hidden in trees, is an anti-tank pillbox and a spigot mortar position (Figure 63). The pillbox has been converted for infantry use, probably in 1941, which is also the probable date for the spigot mortar. From here follow the main road back into Lavenham.

The shorter walk takes approximately two hours and the longer route approximately four hours at a slow pace.

Jude's Bridge Pillbox Trail (Figure 64)

This is a short walk taking in the defences put in place around Jude's Ferry near Mildenhall. Parking is available by the bridge, where there is a convenient pub. From there, a path leads to the east, following the northern bank of the river. After approximately half a mile cross the river at the footbridge by Cullum House and take the path leading towards the church, which leads past the first pillbox, a Type 24 that is typical of this part of the

Figure 63. Spigot Mortar position at Lavenham.

Figure 64. Jude's Ferry.

Corps Line. Walking back to the bridge along the track, a series of pillboxes that lines the southern stretch of the river terminates in a good example of a Type 28 anti-tank pillbox, which in this case was not converted to infantry use and so retains its unaltered embrasure.

At the south-west corner of the bridge the 'Sgt Rolfe' spigot mortar pedestal and concrete sandbagged position can be found (see Figures 15 and 16). A short distance along the path that leads west from the bridge another Type 24 pillbox can be seen. Its curious overhanging concrete roof is probably related to its original camouflage; from the air it would have given the appearance of a square structure such as a farm building, rather than the rather more obvious pillbox.

It is hoped that this guide has shown that Second World War archaeology is an important part of the county's history and deserves to be protected (Figure 65).

Figure 65. Pillbox in Bures village. Situated right on the Suffolk/Essex border, this example is typical of the bullet-proof Type 22 pillboxes on this part of the Corps Line and is now a valued part of the village's archaeological heritage.

Further Reading

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Stop Lines is one of four guides to Second World War archaeology in Suffolk, published in the same format. Together they will help readers to discover, appreciate and enjoy the physical remains of the conflict that still lie in the countryside. This guide describes the stop line defences that ran across large parts of the county.

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