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The Stockton & Darlington Railway Lime Depot, Hopetown Lane, Darlington: historic building investigation and assessment of significance

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LIME DEPOT
HOPETOWN LANE
DARLINGTON

The Stockton & Darlington Railway Lime Depot, Hopetown Lane, Darlington: historic building investigation and assessment of significance

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SUMMARY

This report, commissioned by Historic England in 2019, is an historic building investigation and statement of significance of the Lime Depot on Hopetown Lane in Darlington, undertaken in support of the Stockton & Darlington Railway (S&DR) Heritage Action Zone (HAZ). The Lime Depot (sometimes also called the Lime Cells) is located at NGR 428867 515568; it is a Grade-II-listed building and also lies within the Darlington Northgate Conservation Area. It was built between 1840 and 1847 and appears to have replaced or added to the earlier 1825 coal and lime facilities located at the terminus of the Darlington branch line. This report aims to record the structure as it is now, analyse how it has altered over time and to identify its value in terms of historic, evidential, communal and aesthetic interests which will help inform future decisions on appropriate and sustainable uses for it.

CONTRIBUTORS

Report author: Caroline Hardie, Archaeo-Environment Ltd

Building survey and photography: Hannah Leighton, Andy Phelps and Anne Stewardson of Oxford Archaeology North

Additional archival searches at The National Archives, Niall Hammond, Archaeo-Environment Ltd with additional TNA material from Brendan Boyle

ACKNOWLEDGEMENTS

In an attempt to uncover documentary evidence to date this building and to discover who was responsible for its construction, a large number of archives have been visited and considerable help received from staff there. In particular, our grateful thanks go to Alison Grange of the Ken Hoole Study Centre at Head of Steam, Darlington Railway Museum, Mandy Faye of the Centre for Local Studies, Crown Street, Darlington and the ever-helpful staff at The National Archives, London. Thank you too to Chris Fish for access to his library of railways.

Valuable additional support was obtained from Brendan Boyle of the Friends of the Stockton & Darlington Railway in providing information from The National Archives and Trade Directories as well as a preview of his research into Hope Town. Chris Lloyd also of the Friends of the S&DR and deputy editor of The Northern Echo has continued to be supportive and shared photographs and information on the lime depot. David Howlett of Darlington Local History Society has also shared his knowledge about the building and Ian Ayris and Rachel Grahame of Newcastle City Council have helped find regional parallels. Martin Roberts, author of the forthcoming Pevsner Architectural Guide for Durham has also helped locate architectural references in the Durham area.

Social media has been valuable and we are grateful to those who supplied photos and national comparators, in particular Richard Gaunt of the Facebook page 'Darlington as it Looked 1880-1980' and Mark Watson on Twitter.

Our continuing gratitude is owed to Win Proud for agreeing to share the photographs taken by her late husband John Proud in the 1970s and to Jane Hackworth-Young and Susan Nixon of the Friends of the S&DR for scanning them. Beamish Museum has continued to be generous in their use of images, for which we would like to thank Julian Harrop. Similarly, we would like to thank The National Archives for permission to reproduce the 1838-9 surveys by Dixon of S&DR-owned property.

Thank you too to Richie Starrs, the Heritage Action Zone officer, for arranging the removal of the panelling to allow the building to be examined, and to the staff at the Head of Steam Museum, especially Leona White-Hannant, for their hospitality and interest.

Staff at Historic England, including Marcus Jecock, Gareth Watkins and David Knight, have provided encouragement, comments and help monitoring milestones and negotiating bureaucracy.

The building survey element of this project was carried out by Hannah Leighton and Andy Phelps and the plans produced by Anne Stewardson of Oxford Archaeology North who paid huge attention to detail and commitment to getting the laser scanning survey absolutely correct.

Historic England would like to thank Michael and Alyson Godwin, co-owners of the Lime Depot, for granting permission and access for the survey.

ARCHIVE LOCATION

The archive associated with this recording has been deposited with Historic England and an OASIS record made, reference archaeoe1-345633.

DATE OF SURVEY

26/02/2019

CONTACT DETAILS

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INTRODUCTION

This report is an historic building investigation and statement of significance for the Lime Depot on Hopetown Lane in Darlington. This is in support of the Stockton & Darlington Railway (S&DR) Heritage Action Zone (HAZ). The Lime Depot, sometimes called the Lime Cells, is located at NGR 428851 515568. It is listed at grade II (National Heritage List for England (NHLE) 1391819) and also stands within the Darlington North Road Conservation Area.

This report aims to record the structure as it is now, analyse how it has altered over time and to identify its significance in terms of historic, evidential, communal and aesthetic values which will help inform future decisions on appropriate and sustainable uses for it. The information is also being used to help inform the Railway Heritage Quarter Management Plan which covers a number of other early railway buildings associated with the Stockton & Darlington Railway.

The recording work was carried out in February and March 2019 using a combination of digital photography and laser scanning. The archive associated with this recording has been deposited with Historic England and an OASIS record made, reference archaeoe1-345633.

The Lime Depot is built of brick with sandstone ashlar dressings beneath a slate roof; it is four bays long and built back to earth, thus presenting two storeys to Hopetown Lane with a single storey behind. The gable ends have archways, only one of which ever appears to have been functional; waggons[1] were shunted into the building through the north-west arch at first-floor level and lime emptied into the four cells below. The waggons exited the building the same way they came in. The other archway may always have been blind.

The building was disused as a lime depot probably by the 1870s and certainly by 1896. It has had a number of light industrial uses since but has been empty in recent years. The frontage is currently clad with metal security sheeting; this covers an earlier, but secondary, frontage at first-floor level of timber planking with three 4-light windows (one behind the 'For Sale' sign) and one enlarged 3-light window to cell 1. (For the purposes of this report the cells have been numbered 1-4 with 1 being to the north west and 4 to the south east; see fig 18). Timber double-leaf doors, again secondary, in various states of disrepair front each cell at ground-floor level. The original first-floor frontage seems to have consisted of louvred panels set between cast-iron columns. To the north of the

[1] The spelling of 'waggon' can be 'wagon' or 'waggon'. The original archival sources tend to use 'waggon' and 'waggon' is mostly used to describe early railway vehicles. Waggon is also more popular in northern counties. The 'waggon' spelling has therefore been used throughout this report.

building, a curved wing wall of tooled sandstone adjoins the depot. Concrete walls with a rusticated finish abut this wing wall and the south end of the building: these probably date to after 1939 but mark the original boundary of S&DR land.

Internally, the track was carried by waybeams at first-floor level, supported on the gable ends and three internal cross walls which divide the ground floor in to four cells into which the lime was dropped; each internal wall incorporates large stone bearing blocks or pads supporting the waybeams. Two of the walls have been partially knocked through and access is therefore now possible between the southernmost three cells. The wall between cells 3 and 4 has two openings, but one is much earlier than the others. The northernmost cell (cell 1) is a self-contained unit only accessible via a boarded-up door in the Hopetown Lane elevation.

Given the proximity of the Lime Depot to other early buildings of the Stockton & Darlington Railway, remarkably little is known about it in terms of date, the reasons for its construction, who built it or how it was used. This report attempts to address some of these gaps through a combination of documentary analysis, map regression and building recording. It also places the building in a chronological context, following on as it does from an earlier 1825 coal and lime depot in Darlington. Comparisons are also made with other S&DR lime and coal depots plus depots further afield where their form can help to throw light on this poorly understood building.

Figure 1: Lime Depot location plan. OS Crown Copyright. All rights reserved. Licence number 100042279

HISTORICAL DEVELOPMENT OF THE STOCKTON & DARLINGTON RAILWAY AND ITS COAL AND LIME INTERESTS

The Stockton & Darlington Railway (S&DR) was formally opened on 27 September 1825. It was intended as the start of a permanent, publicly accessible piece of transport infrastructure, 26 miles long, running from Witton Park in south-west Durham to the River Tees at Stockton. It was designed from the outset (in Acts of Parliament of 1821 and 1823) to have permanent branch lines as well as the main line; by 1830 it had branch lines serving Darlington (opened 1825), Yarm (opened 1825), Black Boy (opened 1827), Croft (opened 1829) and Haggerleases (1830) and, had extended its main line to the newly created Port Darlington - modern Middlesbrough (the first planned railway town in the world). Over the following decades, as railways spread across the world, the S&DR also expanded its network of tracks across the NE of England reaching as far as Barnard Castle, Redcar, Cumbria and Weardale.

Figure 2: The Lime Depot from the south east in 2010 before the metal security panelling was added to the Hopetown Lane elevation (photo: Archaeo-Environment Ltd)

The railway was designed to transport any freight or merchandise and passengers between south-west Durham and the urban areas of Darlington, Yarm and Stockton.[1] It also established links to the River Tees at Stockton where coal and other products could be loaded on to ships bound for London and elsewhere and imports received. The south west of Durham had several natural resources that could now be transported more efficiently, namely coal, limestone, lead and stone.

An efficient method was required to deliver the region's natural mineral produce from mines, quarries or lime kilns to depots for landsale or to the coast for export further afield. A system of coal and lime depots (with facilities to accept a range of other products) was established along the mainline and at the termini to the branch lines where bulk goods could be weighed, sorted and stored then sold for land (i.e. local) sale.

This process was distinct from a separate system to transport and deliver goods or merchandise. A separate trackside 'merchandising station' was built by the S&DR on North Road in Darlington in 1826-7, replaced in 1833 with a single-storey goods shed on the opposite side of the road. Such facilities had no retail function. This distinction between goods delivered to goods sheds and mineral traffic delivered to depots for landsale was still to be found in the S&DR decades later.

The First S&DR Depots and Lime

The construction of the Hopetown Lime Depot on the Darlington branch line followed the provision of a series of coal and lime depots from 1825 onwards at various points along the line. Such depots were opened at Darlington, Eaglescliffe/Yarm, Heighington/Aycliffe Lane and Stockton (all opening in phases from 1825 until 1826), Shildon (*c*.1827), Croft Bridge (1829), Fighting Cocks (*c*.1830), and West Hartburn (date unknown). Others were added throughout the 1830s as the domestic market for coal and lime grew and the railway extended.

The original Darlington depot of 1825 was located at the terminus of the Darlington branch, a modest line of only 0.8km (½ mile). It peeled off the main line at Albert Hill and gently curved towards the south past what later became Hope Town, terminating just before the Cocker Beck immediately west of the Great North Road.[2] The branch line approached the depot at a high level, crossing the lane that went between Darlington and Whessoe, known as Whessoe Lane (now Hopetown Lane). The ground levels naturally dropped from here towards the Cocker Beck; this height difference was an essential part of unloading the coal and lime from the waggons on the raised trackbed into the

cells at a lower level.[3] The layout of the coal and lime depots in Darlington, Stockton and Yarm were to provide a template for depots elsewhere and almost certainly informed the layout of the lime depot reported here.[4] So, what did this first phase of depots look like?

The original Darlington coal and lime depot has mostly been destroyed although distant views survive of its rounded arched openings approached by ramp.

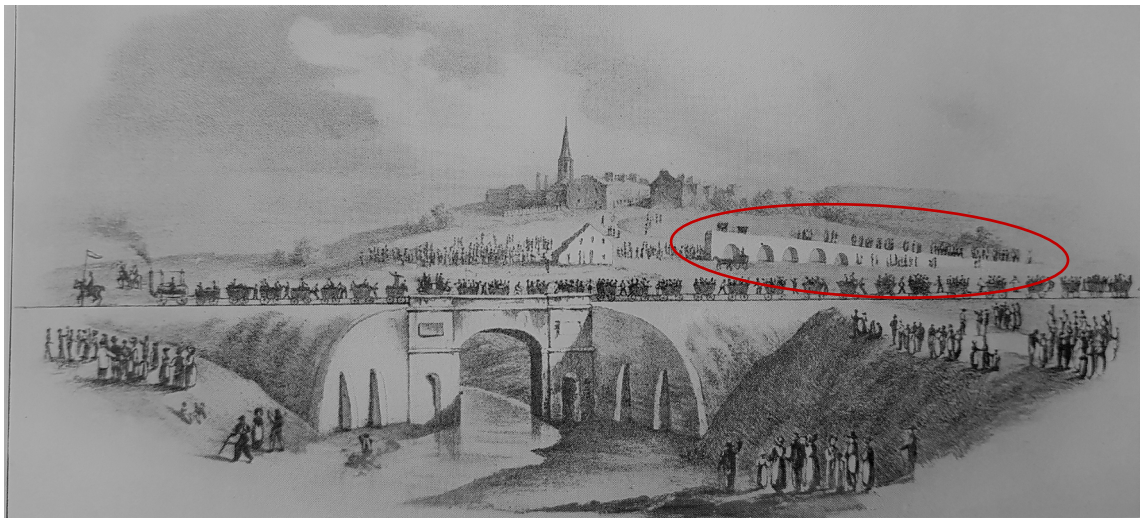

Figure 3: A lithograph published in 1826 showing the opening day of the S&DR as the train passed over the top of the Skerne Bridge in Darlington. In the background the Darlington depot can be seen. Variations on this view would go on to be used on the S&DR company notepaper for some decades, always depicting buildings considered to be important to Darlington and the S&DR (from The Railway Centenary. A Retrospect by Randall Davies 1925, 32)

This Darlington 'Railway Depot' (as it is termed) is also shown on John Wood's map dating to 1826,[5] (prior to the arrival of the weigh house) and a slightly later plan of 1827-30 used by Darlington's Board of Health.[6] Neither shows much detail other than what can be identified from later maps as two parallel rows of cells or 'drops' adjacent to the Cocker Beck. However, these early maps show the depot surrounded by an unenclosed yard. The yard was enclosed in 1837 when the company engineer was instructed to do so, as recorded in the Company minutes from 25 August; its south wall still survives.[7]

Work to the arched cells took place in 1836, when the company minutes refer to a contractor called Doughty being tasked with removing the arches and making good the cells at the Darlington and Yarm depots.[8] It is not clear what the motivation was behind this work. A subsequent description of the depot by

Whishaw dating to 1840, describes the depot as being enclosed with stone walls and consisting of 28 'arched cellars' with openings in the roofs, ranged in two parallel lines between which, and on either side, there was a roadway for 'common road' waggons.[9] Above each range of 'cellars', which were 8.23m (27 feet) in width, a siding ran from the mainline so that the coals could be discharged to the cellars below by means of a 'flap' (hopper door) in the bottom of each waggon. Whishaw also refers to a lodge or weigh house with a six-ton weighing machine at the entrance to the depot.

Figure 4: Thomas Dixon plan, surveyed 1839. The layout of the original depot at the terminus of the Darlington branch line with two parallel lines of 'cellars' which were filled from waggons with bottom-opening doors. Horse-drawn carts would approach from either side for loading coal from the cells and then re-join the Great North Road (now North Road). The building at the entrance to the depot was the lodge and weigh house. Position of later Lime Depot circled (TNA RAIL 1037 456 and 1037/482, reproduced with permission)

The layout as described by Whishaw conforms roughly to the plans dating to 1839 by Thomas Dixon showing S&DR property.[10] Here, eight cells are shown on the shorter arm and 15 full-sized cells with eight half-sized cells in the centre of the western, longer arm. There was also a substantial enclosed yard with sidings leading to an additional enclosed area. Collieries and lime quarries were allocated a number of cells based on what was presumably an advanced agreement and payment, and so if 11 collieries were providing coal, then at least 11 cells were necessary. Mines processing larger quantities of coal would rent a larger number of cells. However, there were also different types of coal being delivered, ranging from the best coal to poor quality cinders and these were separated in different cells too.[11]

The depot at the end of the Yarm branch also opened (unfinished) on 17 October 1825. It was recorded in advance of demolition for a housing development in 2006 by Tees Archaeology but was earlier photographed by John Proud in 1971 before another part was demolished in 1973.

The surviving evidence consisted of rows of arches with an elevated approach allowing coal to be dropped in from above.[12] The building recording work

Figure 5: Eaglescliffe/Yarm coal depot in 1971 with distinctive circular arches and the trackbed over the top as seen in early images of Darlington's depot (photo: John Proud, courtesy of Win Proud).

carried out by Tees Archaeology suggested that the lime cells were distinctively different being under cover and consisting of four simple rectangular cells rather than the rounded arches used for the coal (fig 6 right). The ground floor at least therefore seems to have been similar to that of the later Lime Depot at Darlington.

Figure 6: Left: the exposed coal cells from the S&DR depot at Eaglescliffe/Yarm on the terminus of the Yarm branch. Right: the lime depot recorded by Tees Archaeology in 2006; the OS 1st edition map (fig 7) shows them as roofed. © Tees Archaeology, reproduced with permission.

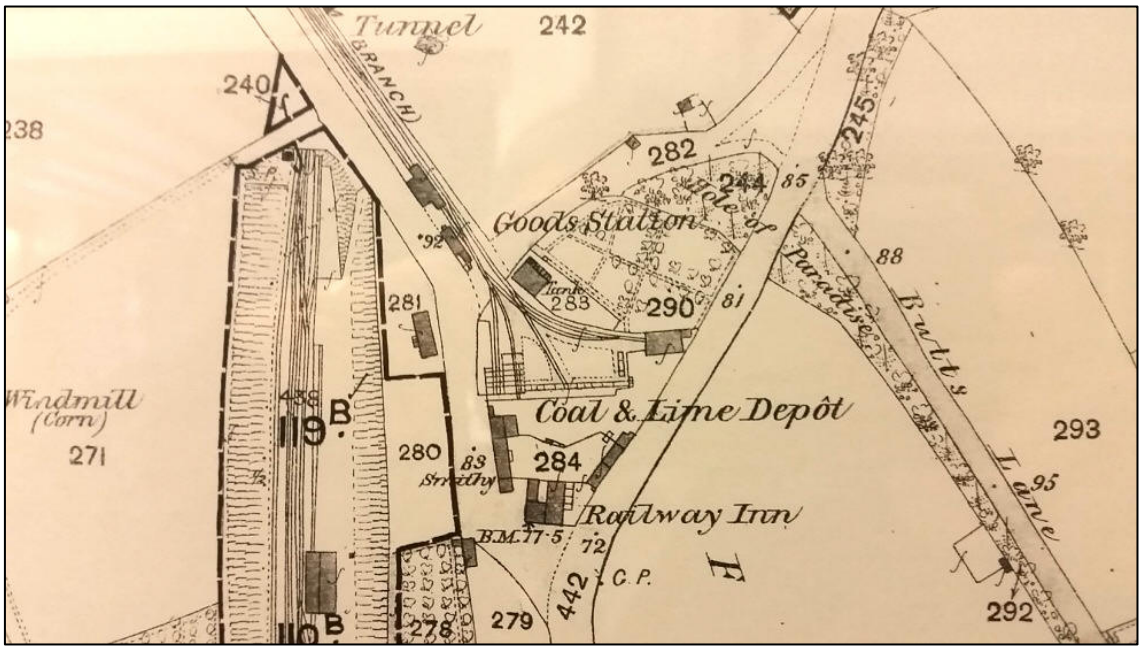

Figure 7: The coal and lime depot at Eaglescliffe/Yarm as mapped at 1:2500 in 1855. (Reproduced from the 1857 OS map).

Unfortunately, the lime cells had largely been demolished by the time of the survey, but records were made of the building materials (brick coursed in English Garden Wall bonding) and cell size (3m wide x 1.5m deep), significantly shallower than the Hopetown depot. The piers forming the cells were not bonded into the rear brickwork so the covered lime cell building may have been a later addition to the existing depot. Based on photographs from 1925 (not seen), Tees Archaeology suggested that the cells had originally been fed by a track over the top from which lime could be dropped into the cells from hopper waggons. [13]

The other early depots also appear to have conformed to a plan form of basic rectangular cells below a track bed, with fewer cells being allocated to lime than coal. For example, the depot at Stockton is shown on an 1830 plan with one row of cells for coal and another smaller row for lime (see fig 8). The layout had changed significantly by the time the OS 1st edition map was surveyed in 1856-7 with the lime depot being wholly separate and undercover (see fig 9).

A coal and lime depot was also built by the S&DR at Aycliffe Lane near Heighington and was operational in 1825.[14] Based on a later plan of 1839, it appears to have consisted of four coal cells below a siding and a covered lime depot joined to the sidings by a spur (fig 10). [15]

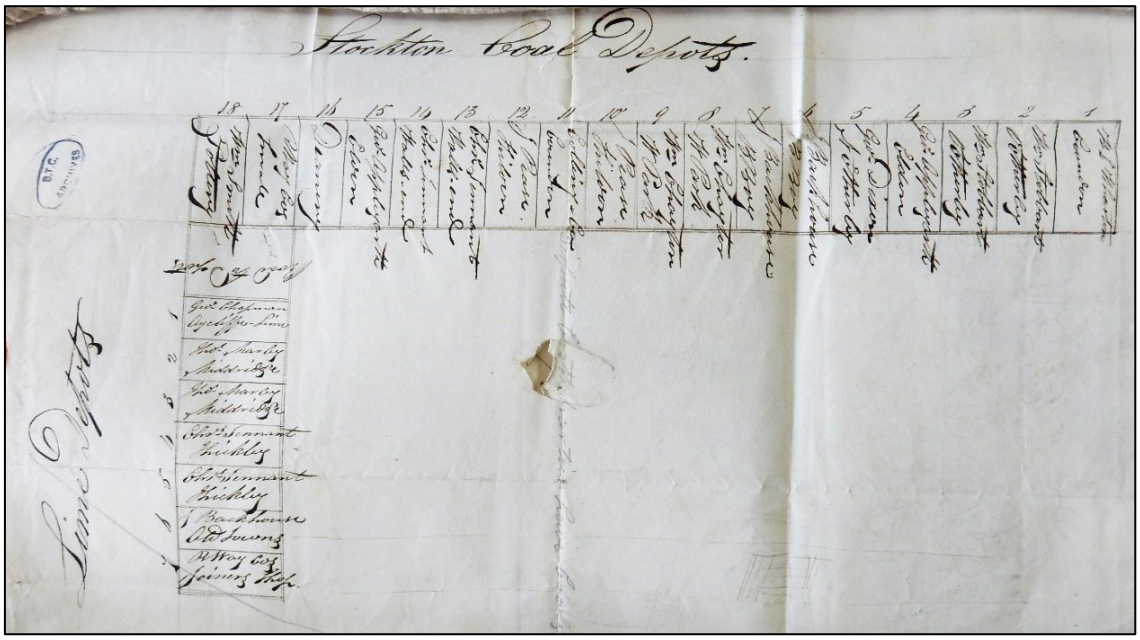

Figure 8: Plan of Stockton Coal and Lime Depot from February 1830 showing a larger number of coal cells along the top and the lime cells to the left, storing lime from Middridge and Thickley where quarries had been opened and kilns burned since 1826. [16] (TNA RAIL 667/1359, reproduced with permission)

Figure 9: The depot at Stockton showing coal and lime serviced on the same site, but in separate cells, as mapped at 1:10560 in 1856-7. The lime depot appears to be under cover. (Reproduced from the 1857 OS map)

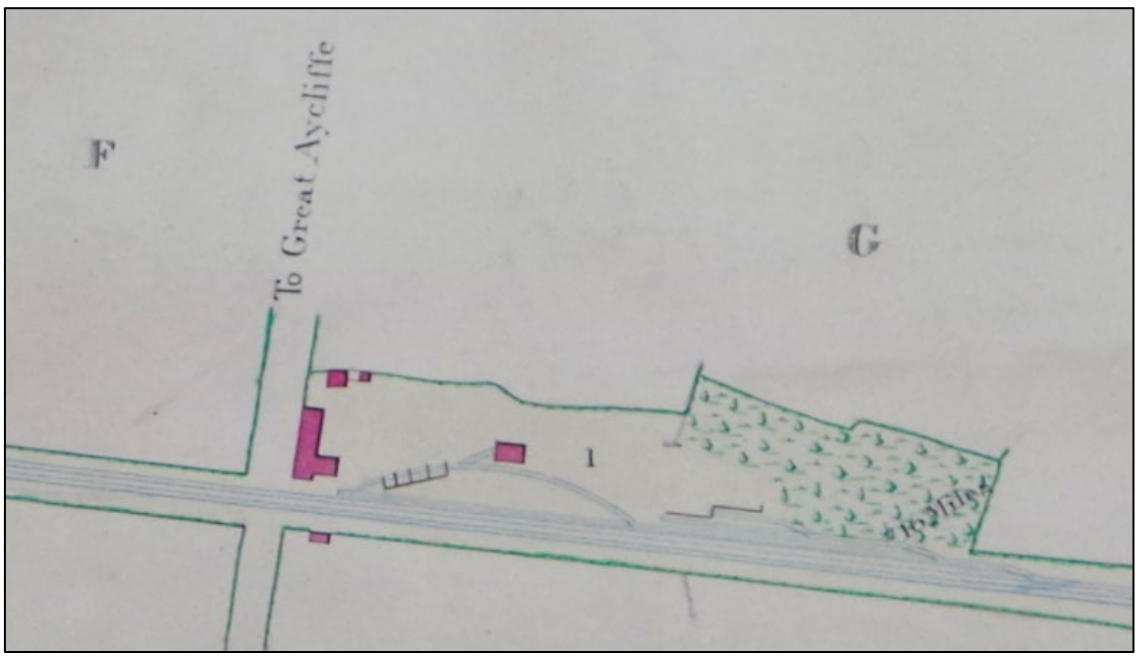

Figure 10: Aycliffe Lane Depot in 1839 with four coal cells visible on a siding which looped from the mainline and a covered lime depot on a spur. The depot was also served by an inn which provided several proto-station functions. The buildings near the road entrance probably included a weigh house (TNA RAIL1037/454, reproduced with permission)

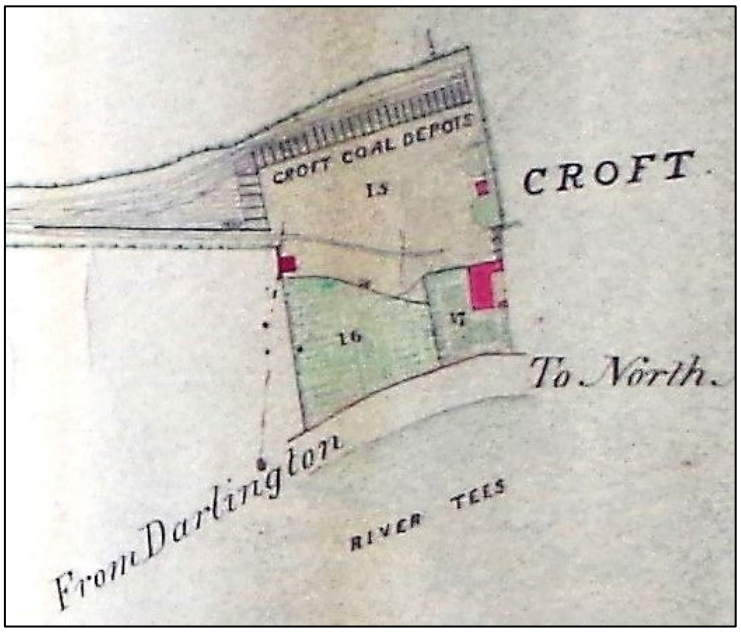

Figure 11: Dixon in 1839 refers to the Croft Depot as a Coal Depot, but receipts show it was for both coal and lime, and the layout matches the Eaglescliffe (Yarm) and Stockton depots with a long arm of cells for coal and a shorter arm for lime (TNA RAIL 1037/455, reproduced with permission).

At the Croft branch, the depot of 1829 was designed for both lime and coal and receipts survive for both. Indeed, its layout conforms to the earlier Stockton model with a shorter row of cells for the lime. [17]

It was against this background of trackbed delivery over street-level cells established since 1825 on the railway that the new Lime Depot on Hopetown Lane was designed and built. On purely practical terms the new depot had to be two storeys to accommodate the difference in height from trackbed to street level and it had to have a roof to keep the lime dry and be located as close as possible to where the lime was required.

The Need for Lime

The mainline was always anticipated to carry significant quantities of lime as well as coal. Initially the advantages of transporting lime were focussed on agricultural improvement purposes. John Grimshaw, who was commissioned in 1818 to prepare an independent report on the pros and cons of canal versus railway, outlined the advantages to the landowner who would benefit by their tenants getting lime and manure conveyed more easily at a fifth of the cost. So, the S&DR's depots would certainly have been designed to accept lime, although initial estimates accepted that coal was the main resource with 80,000 tons anticipated passing down the line annually compared to 'at least 15,000 tons' of lime. [18]

Lime was heavily used in agriculture, the building industry and manufacturing in this period. Lime was added to soil to control its acidity, make the soil lighter to work with and increase its productivity. Limestone was first quarried and then burned in a limekiln. The resulting burned, or quick, lime was added to the soil. This could be added to the soil surface in lumps and allowed to slowly leach into the soil when the rainwater created a chemical reaction resulting in slaked lime. Alternatively, it could be ground down and then spread across the fields. Farmers could build their own lime kilns to make burned lime if they also had access to limestone, but the production of burned lime became more industrialised during the 19th century with groups of kilns permanently burning. This was anticipated to be the main need for lime and so the transport of burned lime in lumps from kiln to depot would generate the most traffic on the railway. It was important that the burnt lime was protected from water during transportation and storage to avoid the violent chemical reaction that resulted in slaked lime.

Lime was also an essential ingredient for building works. A combination of burned lime and water resulted in a chemical reaction creating slaked lime, which was combined with sand and used as a mortar in building works. If more water was added, the resulting liquid or slurry could be used as limewash for whitewashing the interiors and exteriors of buildings. Internally, this allowed more light into interiors, but the lime also had mild anti-bacterial properties; householders were advised to limewash their house interiors and food preparation areas to help control disease such as cholera. As the demand for more buildings grew around the railway, the demand for lime would have increased too. Crushed limestone could also be used in road building.

A number of industrial processes used limestone. The new gas works on the east side of North Road opened on 11 December 1830. As well as needing coal brought by the railway, it also required lime as part of the process of removing ammonia from the gas. The demand for lime increased with the growth of the iron trade where it was used as a flux in blast furnaces to remove impurities from the iron ore. The iron industry made considerable use of Weardale limestone; for every ton of pig iron manufactured, about half a ton of limestone was used. This trade was negligible in size when the S&DR opened in 1825 but increased gradually with the creation of new foundries around Hope Town from 1830 and when ironstone was found in the Cleveland Hills close to the eastern terminus of the railway in 1850.

The cost of transporting quick lime on the railway was to be the same as coal at a rate of 4d per ton per mile, plus a shilling to use the inclined planes at the west end of the line where the topography was too steep for locomotives.[19] Despite the discovery of a whole new bed of limestone during the excavation of the

railway cuttings at Middridge,[20] the transportation of lime in the first six months of the railway operating amounted to a disappointing £46 of which none was sold at Darlington. In early April 1826 four new kilns were lit at East Thickley on the mainline route which promised an increase in lime traffic. The Records' Book covering April 1826 records Middridge lime being weighed in Darlington but then being sent on to Yarm and Stockton, presumably for agricultural purposes.[21] The Company decided to try something new; they would foster traffic in lime by reducing the incline rates for coal being transported for use in lime kilns and in July that year reduced the toll by half.[22]

That same year and in 1827 two Prussian engineers, von Oeyenhausen and von Dechen, visited the S&DR and reported how large quantities of quick lime were being exploited from quarries about two or three miles north of Darlington, directly on the main line where the magnesian limestone layer was about 30 feet (9.14m) thick. The lime produced was ultimately used to manure the fields. [23]

Overall, the breakdown of monthly sales of coal and lime at Darlington suggest that the sale of lime from the depot was rather late in starting. No lime was sold until April 1828.[24] Further attempts to increase the traffic in lime included improving the facilities. On 2 May 1828, the S&DR Committee decided to provide a 'proper' covered depot. William Kitching (of Kitching's Ironworks) was assigned the task:

> Application having been made for a covered depot for Lime at the Depot at this place W Kitching is directed to fix upon a proper depot and attend to it being covered in an economical manner.[25]

This suggests that until mid-1828, the depot at Darlington was largely dealing with coal and had no special facilities to deal with lime which was presumably being stored, if at all, in the same way as coal.

It therefore seems that the quantities of lime being offloaded at Darlington's depot were relatively low as long as the demand was only from the agricultural market. The demand for coal however continued to rise.

It was against this backdrop of low lime sales and increasing coal sales that building plots were sold off adjacent to the branch line in Cockerton Township. Adverts in the Durham Chronicle dated 29th May, 5th June and 12th June 1835 and posted by Richard Otley who was the S&DR's land surveyor and secretary, offered 'Lots of Building Ground' for sale at Hopetown adjoining the railway 'with which the purchaser will have the privilege of communicating by Sidings or Branches'. The adverts also referred to the area already having Steam Engine and Iron Foundries.

Whether there was any connection to W.A. Kitching (iron foundry) leasing land from the S&DR in Company minutes dated 24th August 1836 is not clear, but it

does suggest a willingness of the S&DR to release land around the Hopetown area whether as a sale or as a lease. The Company minutes for 31 March 1837 refer to a Mr Walton wishing to buy land between the Darlington branch and Whessoe Lane (now Hopetown Lane).[26] However the site of the Hopetown Lane Lime Depot was still in the ownership of the S&DR in 1839 when Dixon surveyed S&DR property and included the site of the depot apparently prepared for development with a rail spur ready for delivery (see fig 12).

THE NEW LIME DEPOT

The new lime depot on Hopetown Lane must have been built shortly after 1839. Thomas Dixon's survey of 1839 (fig 12) captured a moment in time before the building was constructed. Here a spur had been built extending to the spot where the lime depot was to be built and where there was a gap in the S&DR boundary wall.[27] Another set of sidings extended all the way south eastwards behind where the Lime Depot would be built. Some of these sidings continued to the old coal and lime depot, and some terminated at a rectilinear enclosure on Whessoe Lane (now Station Road), possibly an unloading bay for building materials. [28]

The depot as built first appears on a plan drawn in 1847 by Sowerby (fig 13) which depicts the building complete with four cells. The plan also shows the curved stone wall abutting the NW gable end which remains today, and which closed off the earlier gap. The building is also shown on the tithe plan of 1847 but with no details (not reproduced here).

The first edition OS map (25 inch to 1 mile scale) surveyed in 1855 and published in 1856 (fig 14) gives a clear picture of how the lime depot was operating at this time. The sidings are depicted as Dixon had shown in 1839, leading to the NW gable end of the lime depot. This suggests that the waggons entered through the arched gable end, offloaded the lime into the internal cells and reversed back out again. Presumably, each cell was allocated to a particular limestone quarry or lime agent.

The use of the building as a lime depot must have been relatively short-lived. By the time of the publication of the OS 2nd edition 1:2500 map revised in 1896 (fig 15), the spur no longer ran into the building. Presumably by this time the building had been put to alternative uses. We know from elsewhere that the old chaldron waggons of 53 cwt (2.69 tonnes) in capacity which had been used to deliver coal and lime from 1825 had gradually been superseded and the new 3-ton (just over 3 tonnes) waggons in use from about 1840 were too large for the old coal depots. Consequently, some depots were closed down or re-sited including Yarm in 1871 and Darlington's first depot in 1870.[29] The Hopetown lime cells were narrower than the original 1825 coal cells, and the entrance arches relatively low, and so may have also been too small for the new waggons.[30]

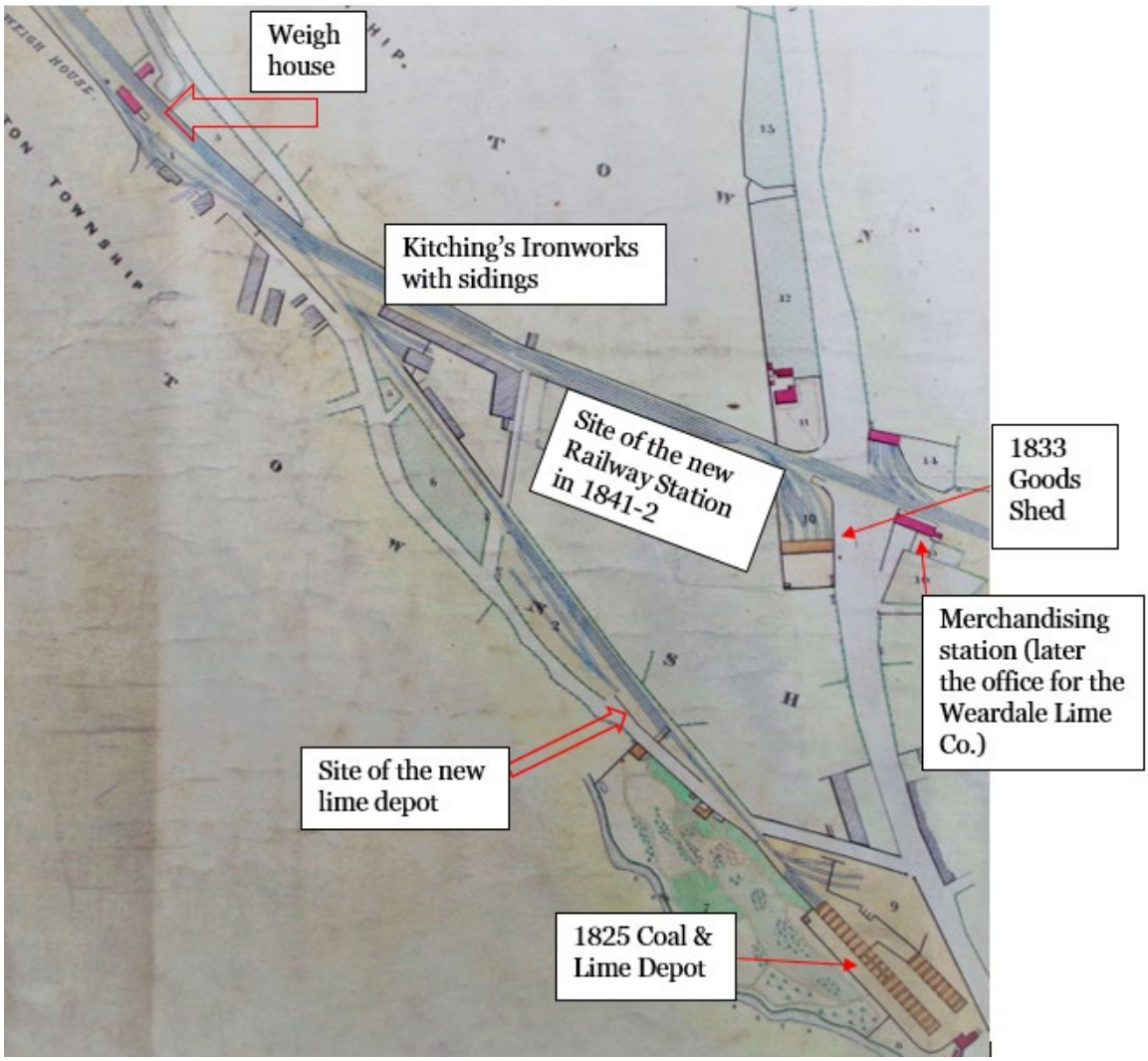

Figure 12: Dixon's 1839 plan of S&DR property with annotations added (TNA RAIL 1037/ 456, reproduced with permission). Note the sidings ready to enter the lime depot yet to be built. Also, a gap in the wall just above the red arrow pointing to the site of the depot – this would be filled with a curved sandstone wall still extant today.

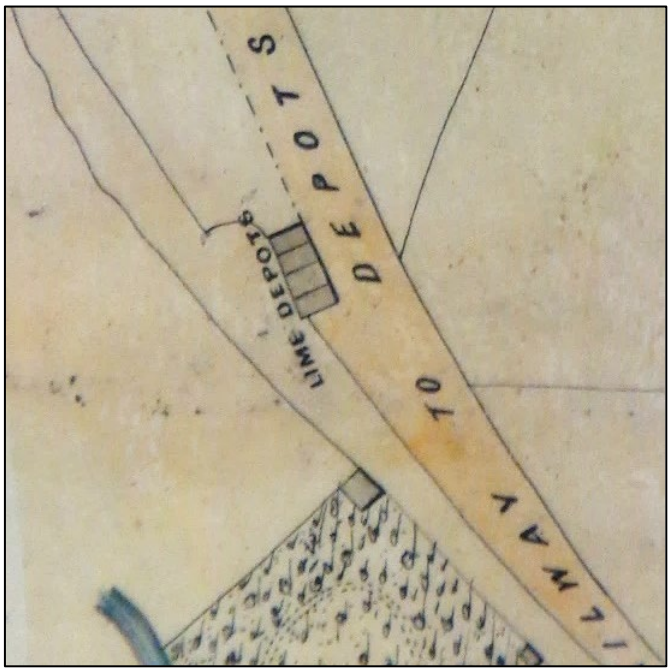

Figure 13: Extract from Sowerby's map of 1847 showing the lime depot divided in to four cells. The gap in the wall has been filled and replaced with a curved wall to the NW creating a forecourt where carts could pull up to collect lime (Centre for Local Studies at Darlington Library, reproduced with permission) [31]

Figure 14: The Lime Depot with sidings entering the NW gable end as mapped at 1:2500 in 1855. (Reproduced from the 1856 OS map)

By the mid-20th century, the lime depot was used as a welder's shop (Northern Welding Service, owned by Johnnie Galloway), but parts were also rented out at various times, as a blacksmith's and the lower levels of at least one cell used for storage and another as a garage.[32] While it was a welder's shop, iron gates were hung outside the front elevation to show off the business's wares (fig 16).

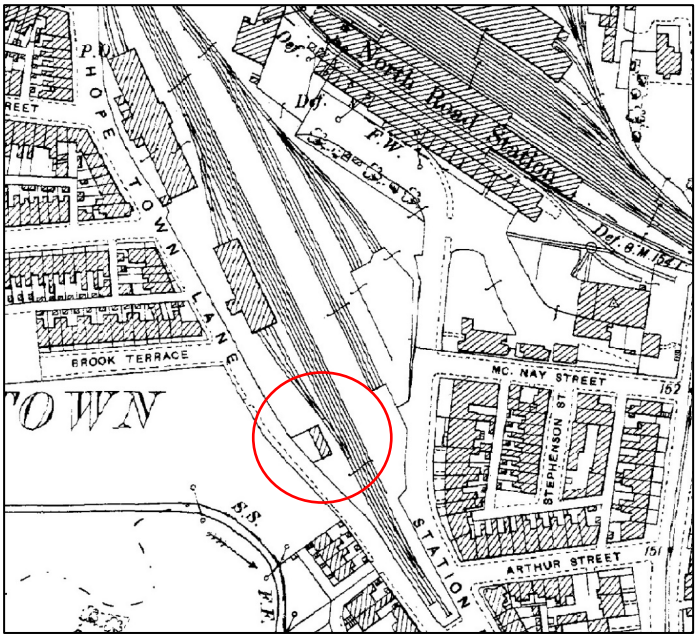

Figure 15: The lime depot as depicted in 1896, now isolated from the track network (reproduced from the 1898 OS 1:2500 map).

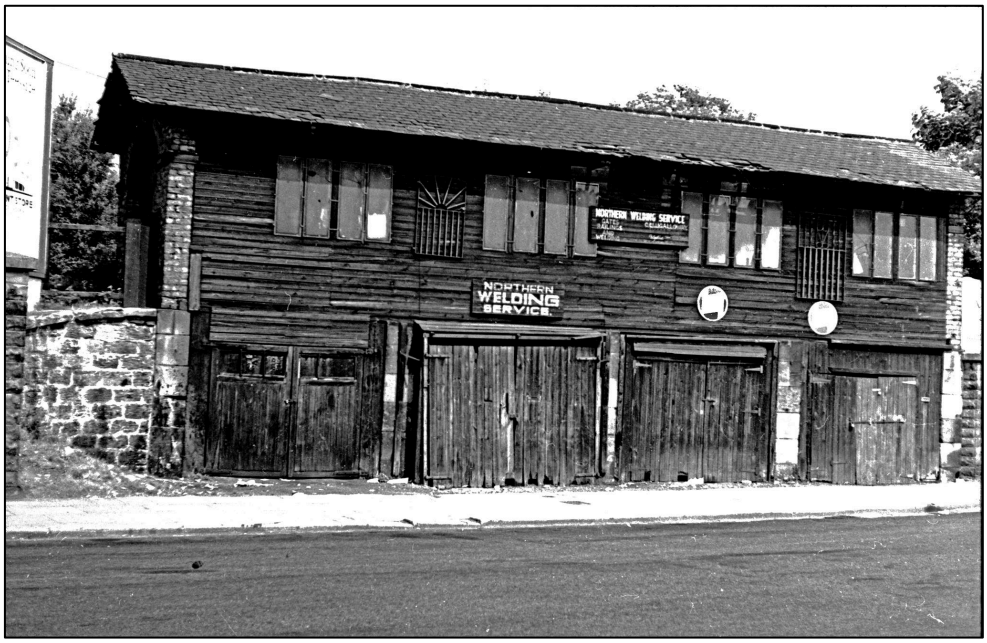

Figure 16: The lime depot in the 1960s when it was used for Northern Welding Service (Wrought Iron and Light Structural Works). Gates were hung outside the street elevation as an advertisement for its wares. © Richard Gaunt, reproduced with permission.

The former Lime Depot was listed grade II for its architectural and historic interest in 2006.[33] In 2011 it was the subject of a planning and listed building consent application for conversion into a day care centre. Although the necessary consents were granted, the works never took place and the permissions expired. The building has been vacant ever since and is now boarded up to prevent vandalism.

Who built the lime depot?

None of the S&DR Committee minutes seen refer to the building of a new lime depot at Darlington. The only relevant reference to building works taking place on the branch line is an application by Richard Appleton in 1840-1, approved by the S&DR, for a merchandising warehouse or granary on company land.[34] The land on which it was built was to be leased from the S&DR and Appleton also had to pay a ground rent. Richard Appleton is listed as a corn merchant in the 1847 Trade Directory for Darlington, but not subsequently.[35] This is good evidence that what he proposed to build was indeed a granary, but there is no firm evidence for where on the branch line it was to stand.

On 16 April 1841, the minutes refer to a short wall being required at Hopetown and John Pease and William Kitching were instructed to commission it and to cut down any trees obstructing it. This was a subsequent agenda item consisting of a request from Richard Appleton to cut down trees next to the granary/warehouse he was building.

There are elements to both of these minuted items that fit rather well with the lime depot, particularly the reference to the short wall: a short section abuts the depot which was not there in 1839 but had been built by 1847. However, even allowing for the use of lime as a fertilizer, it seems improbable that Appleton's building would be referred to as a granary or a merchandising warehouse unless its intended function changed before construction got underway.

If the depot is not Mr Appleton's warehouse, then it must have been a lime depot from the outset and so would have been used by a lime agent or a builder. Certainly, the ground floor cell walls were keyed into the back wall suggesting that the cells were part of the original design (see below p39). However, no lime agents or references to a new lime depot occur in any of the local Trade Directories between 1839, when Dixon's plan showed sidings but no lime depot, and 1847, when maps by Thomas Sowerby and the tithe plan both show the lime depot and the sidings.

Although the trade directories make no mention of a lime collector before 1848, an advert in the Darlington & Stockton Times and the Ripon & Richmond

Chronicle on 1 April 1848 makes it clear that James Coates was the agent at the Northgate Bridge depots which belonged to the S&DR. At that time, he was advertising coal, Stanhope lime, fire bricks, gravel and stone flags, the same range of commodities that could be purchased from the original depot from 1825 onwards. In 1855, James Coates is listed as the S&DR's lime agent with offices at Northgate. Northgate could refer to the S&DR offices in the town centre rather than the depot at Northgate Bridge. Therefore, while it is clear that the S&DR had their own agent dealing in lime from at least 1847-1855, it less clear where he was operating from.

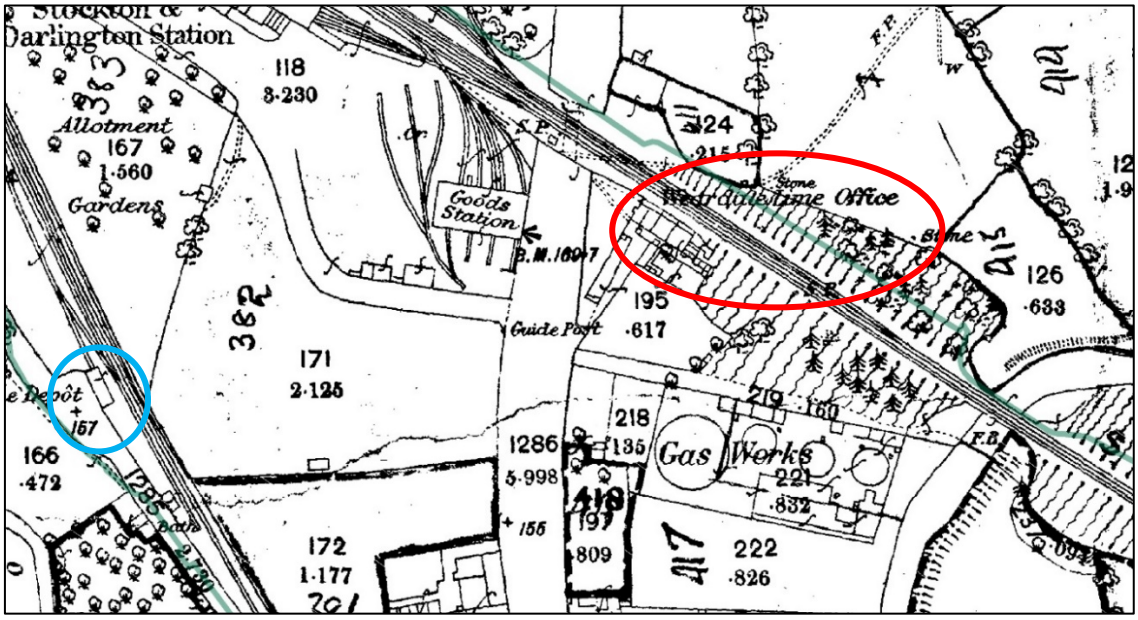

Figure 17: The Weardale Lime Office occupying the former Merchandising Station on North Road (circled red). The lime depot of c.1840 circled in blue as mapped at 1:2500 in 1855 (Reproduced from the 1857 OS map).

The first reference to any other lime agent or collector is in the 1848 Slater's Trade Directory where under 'Coal Depots, Northgate Bridge' were 16 collieries and 'Woodhouse Close and Stanhope Lime Depot' where George D Lightfoot & Sons were collectors.[36] If James Coates was the S&DR lime collector at this time, then Lightfoot is presumably not an S&DR agent and could be associated with the depot on Hopetown Lane.

Slater's 1855 Trade Directory listed under 'Coal Depots, Northgate Bridge' a 'Wood Close [sic] & Stanhope Lime Depot'. It also listed 'Maddison Henry (lime), Albion st' under Darlington agents. Albion Street was likely to be an office address rather than a depot.

A 'Weardale Lime Office' is mapped at 1:2500 in 1855 (fig 17 reproduced from the OS 1857 map) located in the original S&DR Merchandising Station. The former station was no longer used as such and had been adapted as cottages and then offices.[37]

There is no further reference to the S&DR having a lime agent in later trade directories; all further references are to private companies, most notably Ord and Maddison. By 1859-60 the Lime Merchant Maddison had been joined by Ord and was listed at 40 Priestgate, Darlington. Again, this appears to be an office address and not a depot one. In the 1858 Post Office directory by Kelly (p48 and 391) their advert listed three types of lime or stone:

> STANHOPE OR WEARDALE LIME - ARRANGEMENTS HAVE BEEN MADE FOR AN INCREASED SUPPLY OF THIS LIME, so much in request by Agriculturists.
>
> CARLBURY LIME, An excellent Hydraulic Lime, which is highly valued for Building purposes;
>
> COCKFIELD BLUE STONES & WEARDALE LIMESTONE (For Roads); can be had on shortest notice. [38]

By 1864, Slater's Directory listed under 'Coal Owners and Coal Merchants ... Ord & Maddison, Weardale Lime Office', who had now moved to High Row from Priestgate (the former office of the Weardale Lime Office was demolished in 1864). Ord & Maddison stayed at High Row until the 1890s when Kelly's Directory listed them at Northgate and I'Anson Square. Here they continued to supply:

> ...the Weardale agricultural lime; lime for building, plastering & purifying purposes; every kind of road material in granite, whinstone, limestone & slag; screenings for footpaths, asphalting & concrete work; Yorkshire flags & flag blocking, sand & loam & brass & metal castings, ground basic slag; agricultural machinery & implements of every description.

They also had their own quarry and offered to deliver to any of the NER stations.[39]

By 1914 Kelly's Directory still listed Ord & Maddison, but they were now concentrated on agricultural implements, mechanical engineering and manufacturing, referring to their Victoria works. The only mention of lime in Darlington was: 'Dobson F W & Co. lime burners, Pensbury street' adjacent to Bank Top Station which had its own depot. This fits with the mapping evidence which shows that the lime depot was no longer joined to the railway by sidings, implying its use must have changed.[40]

Ord & Maddison (and their predecessor Lightfoot?) may therefore have been the owners and builders of the Hopetown Lane depot of *c*.1840. Their use of the business name the 'Weardale Lime Office' creates a link with the former S&DR Merchandising Station over the other side of High Northgate from the lime depot. By 1868 they not only had their own quarry at Middleton in Teesdale, but also their own steam locomotives that could have delivered the lime direct from their private sidings near Middleton Station to the depot from the Hopetown sidings.[41] Whichever agents used the lime depot, the period between 1840 and 1870 was certainly one where there was a significant demand for lime for the building trade and agricultural uses.

Figure 18: Cell/bay numbering used throughout the report

Phase One: Lime Depot *c.*1840

Building Exteriors

The lime depot consists of a rectangular pitched-roofed, two-storey structure with four bays or cells in line at ground level facing the street and (originally) a single open space at first-floor level to receive and unload rail waggons. The design of the building created a well-ventilated space, roofed in Welsh slate to protect the lime from rain; the roof has deeply oversailing eaves to the front and the rear. The slate roof, supported on beams, has had some patchwork repairs with new slate, but otherwise appears to be original. The date of the Lime Depot at *c.*1840 at first glance seems quite early to have a roof of Welsh slate, but this material was already on sale in the region prior to the advent of the railways.[42]

The front elevation of the upper, track-level, storey is clad in timber (now hidden behind metal sheeting for security). This timber cladding is a later addition but the sandstone facing of the cross-wall between each cell at ground-floor level can still be discerned from the street front. Otherwise, the building is mostly of unfrogged stock brick with stone dressings; the brick is mainly laid in English Garden Wall Bond with three, five or six stretcher courses for each

header course. However, there are exceptions to this in places where fewer courses are required and in the arch fill to the south-east elevation. An examination of this brick where exposed confirms that it has no maker's marks and is generally about 9½ inches (240mm) long x 4½ inches (120mm) deep x 3 inches (80mm) high, although there are modest variations. While most are traditional stock red brick, there is a scatter of blue/black bricks throughout.

The building is built into the higher ground on the east side of Hopetown Lane and so is 'back to earth' on three of the four sides of the lower storey. Originally there were additional sidings to the rear (north east) which bypassed the lime depot and extended further south east to the rest of the branch line and a small enclosure (now the site of the green island area).

The building has a single arched entrance on the north-west gable through which fully-laden waggons were shunted ready for emptying into one of four cells below (fig. 19). Both sides of the segmental arch spring from decorative sandstone impost mouldings which continue round to the front and rear elevations (fig. 20). The doors in the entrance archway are later additions; it is not clear if the arch was originally open permanently or whether it was provided with doors. Two wooden slots on the east side of the arch are positioned where a hinge could be placed, but there is no evidence of a hinge on the opposite side of the arch and no evidence of fixings on the wooden slots. Internally, a hole in the east sandstone impost band (fig 20) appears to be a later feature rather than evidence of an earlier door fixture.

The opposite south-east gable end (fig 21) contains a wide first-floor relieving arch of three-centred design, in rubbed and gauged brick and springing from stone imposts that again continue along the front and rear elevations: this creates an eye-catching decorative feature. This arrangement mirrors that of the north-west gable; the relieving arch plays a structural role as well as an aesthetic one.

Figure 19: The north-west elevation. This archway was the entrance into the building for fully-laden chaldron waggons containing lime. The doors are a later addition

Figure 20: Impost band detailing on SE corner (interior view) with vertical tooling marks and

Figure 21: The south-east gable – this appears never to have been used as an entrance or exit. Inset: detail of brickwork showing that it is not bonded into the archway.

Historic mapping shows that the track never exited from this end, so waggons returned the way they came after unloading the lime. The brick infill in this gable is not bonded into the archway, but the coursing is unbroken and the brick size and colour is identical: it may, therefore, have been a decorative pier-and-panel construction from the outset or a later infill. The presence of an infill to the arch detracts from the impost mouldings which extending from the exterior to the interior were presumably designed to be seen in the round. If later, this may suggest that an open end was either for ventilation or to allow for a future

exit should the track be extended to the south. However, the base of the arch sits on a plinth of brick headers, which continues across the outer piers. This is an

Figure 22: The rear (north-east) elevation with only the upper floor above ground. Each ventilation slit is in the centre of where the individual lime cells are located below. Four slim brick buttresses add support to where the cell walls join below.

architectural device not seen on the opposite (north-west) gable end and suggests a different function for both archways from the outset.

The rear (north-east) elevation (fig 22) is divided into four equal parts by slim brick buttresses (equating to the division of the ground floor into four equal-sized cells). Each division of the rear elevation is provided with one slit vent at upper floor level which would have provided ventilation to the upper floor interior. This elevation appears to be largely unaltered.

The curved wall to the north-west of the building (see left of the building in fig 18) is built of dressed stone with stone coping. On plans dating to 1839 by Thomas Dixon (see fig 12), before the Lime Depot was built, there was a gap here between existing walls but by 1847 this gap was closed, preventing access to the sidings (see fig 13). Historic mapping shows that the street widened out here forming a yard area, presumably where carts could wait for loading.[43] Based on the internal floor covering of cobbles, it is likely that the yard would have been treated in similar materials. Probing in this area during recording certainly confirmed that there was a hard surface here, although large amounts of debris were also present.

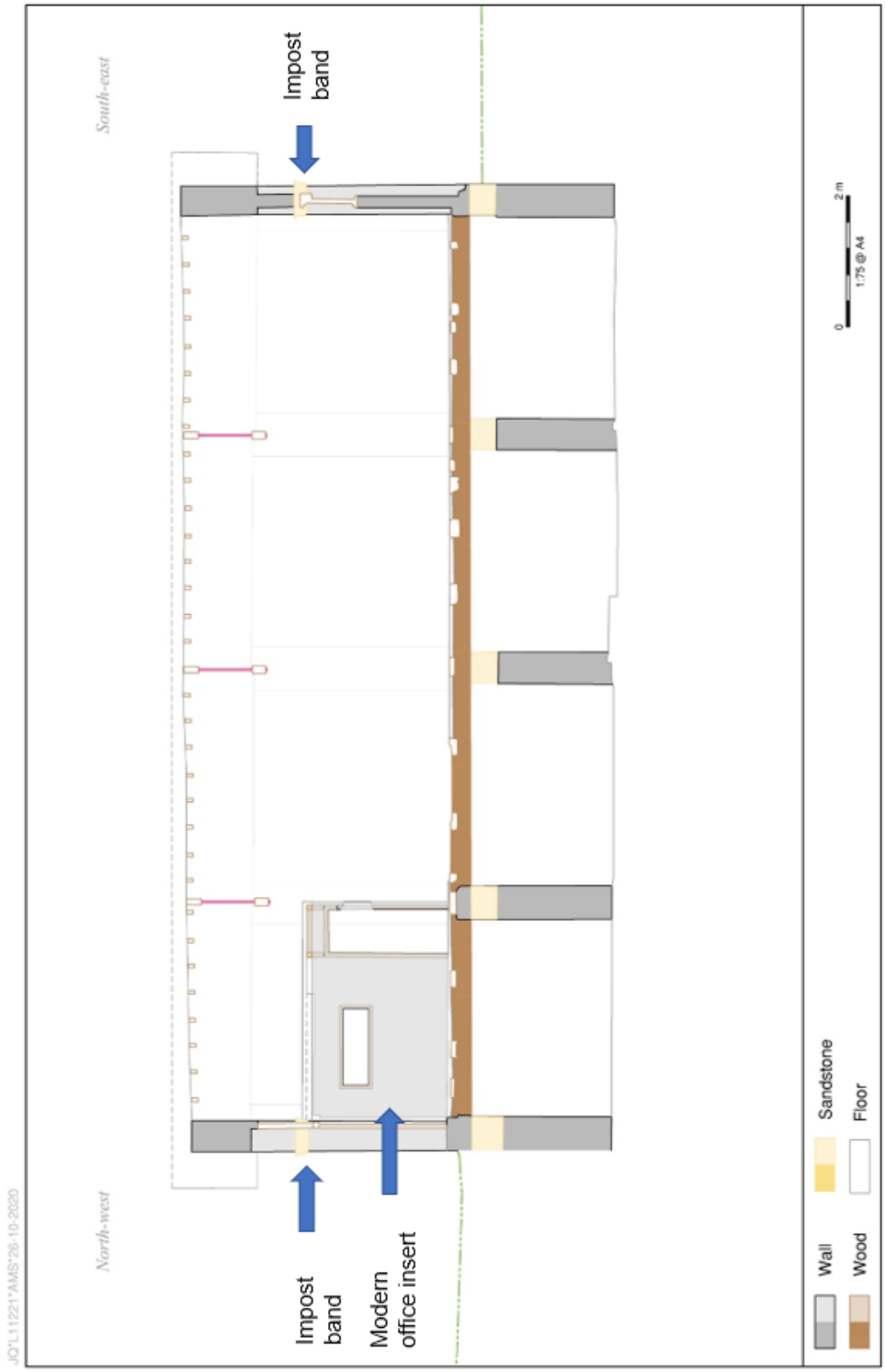

Figure 23: A long section through the centre (roof apex) of the Lime Depot. Lime was delivered on chaldron waggons from the left at first-floor level. They were positioned over the four cells below and the lime dropped in the gap between the rails where it could be collected later by cart at street level. The waggons exited the same way.

Interior – upper floor

Lime was brought in on hopper waggons through the north-west gable end arch at first-floor level. Allowing for the violently reactive nature between quick lime and water, the lime must have had some sort of covering on the waggons to protect it from rain. This presumably consisted of a tarpaulin (tarred canvas) tied over the top.

As the rail spur entered the building, it was supported on two 6 inch (152mm) wide waybeams running the length of the interiors. The space between the beams, measuring 4 feet 4 inches (1.22m), was originally open but on either side, timber flooring consisting of floorboards 13 inches (330mm) wide and two inches (50.8mm) deep created working platforms for the lime attendants who had the job of manoeuvring the waggon(s) into position and releasing their trapdoors so that the lime could fall through into the cells below.

Figure 24: View along the upper floor looking SE. Original timberwork survives to the left and right of the modern openings and formed platforms where attendants could stand to operate the waggons' bottom-opening doors and deposit the lime into the cells below. The narrower central planks are all later insertions to block the gap between the waybeams. The ranging poles mark the positions of the ground-floor walls that divide cells 2, 3 and 4 below.

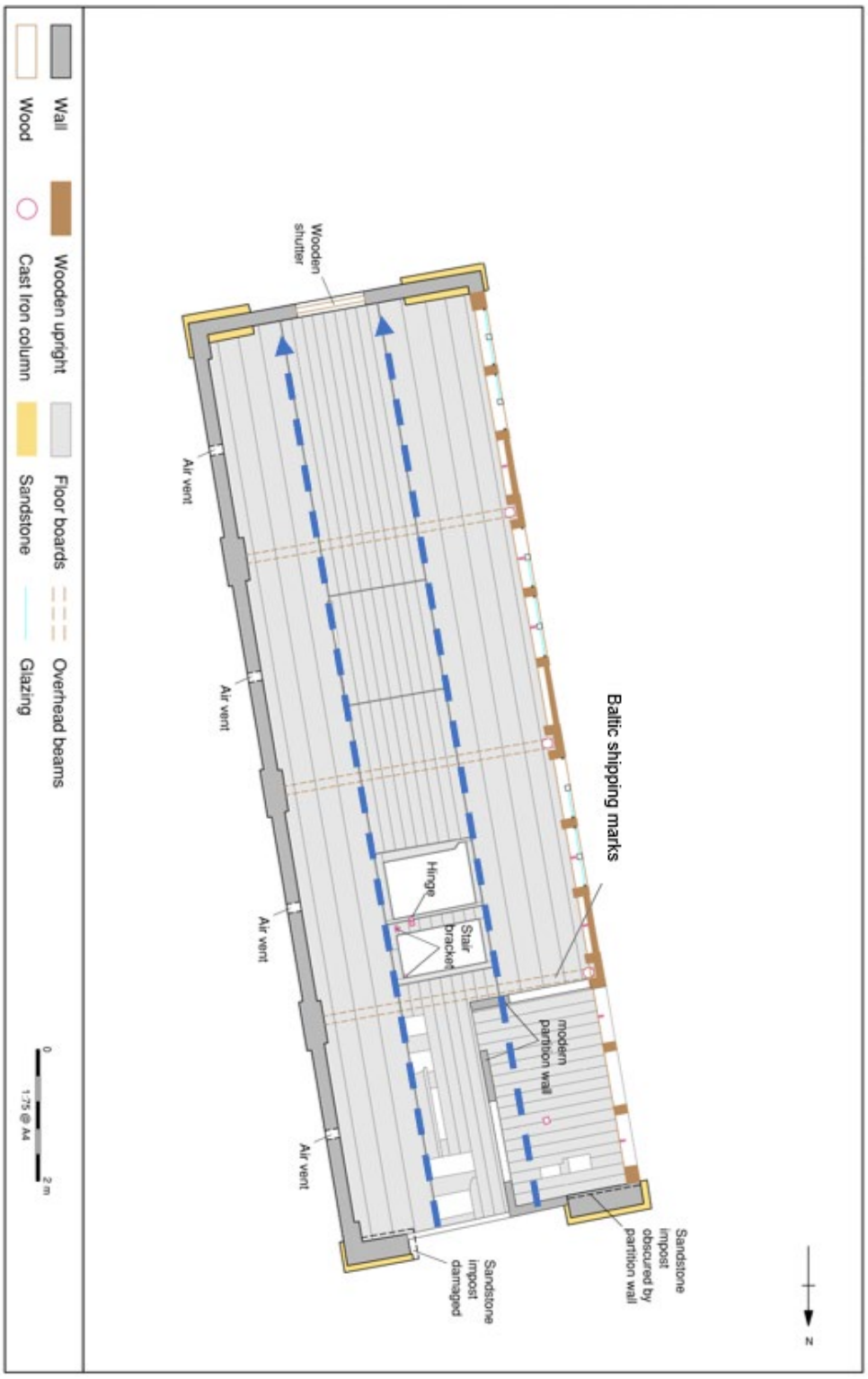

Figure 25: First-floor plan. The blue dashed arrows mark the direction of approach of fully laden waggons running along a track supported by waybeams below. The narrow timber planking between and trapdoors is later.

Figure 26: The simple truss roof structure. The cast-iron columns (see left) are however too short to support the tie beams so slivers of metal have been added to make up the difference and to provide a solid level surface to support the tie beams and wall plate (see below, fig 28)

Figure 27: Three cast-iron columns with lily leaf decorated capitals are located along the building frontage, positioned on the upper floor in the division points between the cells below.

Figure 28: Left: The original flooring has been cut so that the columns sit on the level stone surface below in order to create greater stability. Right: This may have resulted in the columns being too short, so a piece of metal was inserted above each column so that it supported the wall plate and tie beam. The tie beam and wall plate are joined with an iron strap.

Figure 29: Left: The capitals of the columns are cut into the timber uprights. Right: catches at the base of each louvre opening were presumably part of a mechanism to open and shut the louvres

Three cast-iron columns with decorative lily leaf capitals stand below the tie beams supporting the roof structure along the main west elevation. The columns have been set into a square cut in the original flooring so that they sit on the stone walls below for extra stability. A consequent slight shortfall in height of the column was made up with a fillet of metal between the top of the column and the wall plate and tie beam. An iron strap is used to tie the wall plate and tie beam together above each column. The columns are keyed into the

vertical timbers of the framework which supported louvres at the base and the top.

This timber framework runs along the front of the upper floor behind the columns and supports the wooden wall plate. The vertical posts, each with a dowelled edge, are keyed into the wall plate with a mortice and tenon join. They are also given additional support with a further iron strap joining them to the base timber of the framework. Each upright has a series of regularly spaced dowel holes 6 inches (152mm) apart inserted into them which may be evidence for the presence of louvres.

Louvres would have provided ventilation and light and protected the lime from the elements. Evidence of the individual louvre shutters can also be seen on some of the uprights as shadows. Based on the position of the vertical timbers there were three sets of louvres to each cell width or bay, so a total of 12. The remains of a mechanism associated with the louvres can still be found at the foot of seven of the louvre openings; others are now missing (but scarring in the timber is evidence of their location in three openings and two have the base timber missing altogether). These were probably part of the system that allowed the louvres to be opened and closed.

Figure 30: Dowel holes on uprights mark where louvres were attached, the shadows of the shutters can still be seen.

Both sets of gable end arches have distinctive sandstone impost bands with vertical tooling and margins which curve around the interiors and exteriors of the walls; this decorative and presumably expensive feature was surely designed to be seen in its entirety, but it has been obscured by the end upright timber post supporting the wall plate which has been cut around it.

The building is covered by a simple truss roof with tie beams over each division point between cells and with through-purlins. The tie beam over cells 1 and 2 has Baltic shipping marks on it. Such marks are to be found on timber imported from Norway and countries around the Baltic Sea in the 18th and 19th centuries, but the peak of the Baltic trade into Great Britain was in the 1850s. The marks were cut into the timber with a timber scribe or race knife and consisted of a series of numbers or sizes relating to the grade of timber and the shipping port.

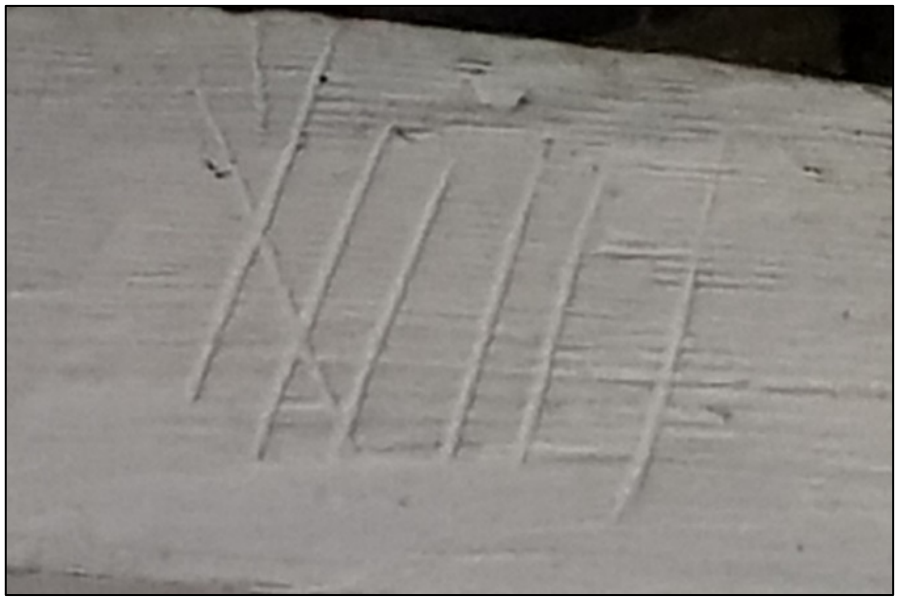

Figure 31: Baltic shipping marks on the tie beam above cells 1 and 2

Figure 32: The timber upright supporting the wooden wall plate has been cut around the stone impost bands. This suggests that the impost design was added before the timber frontage added.

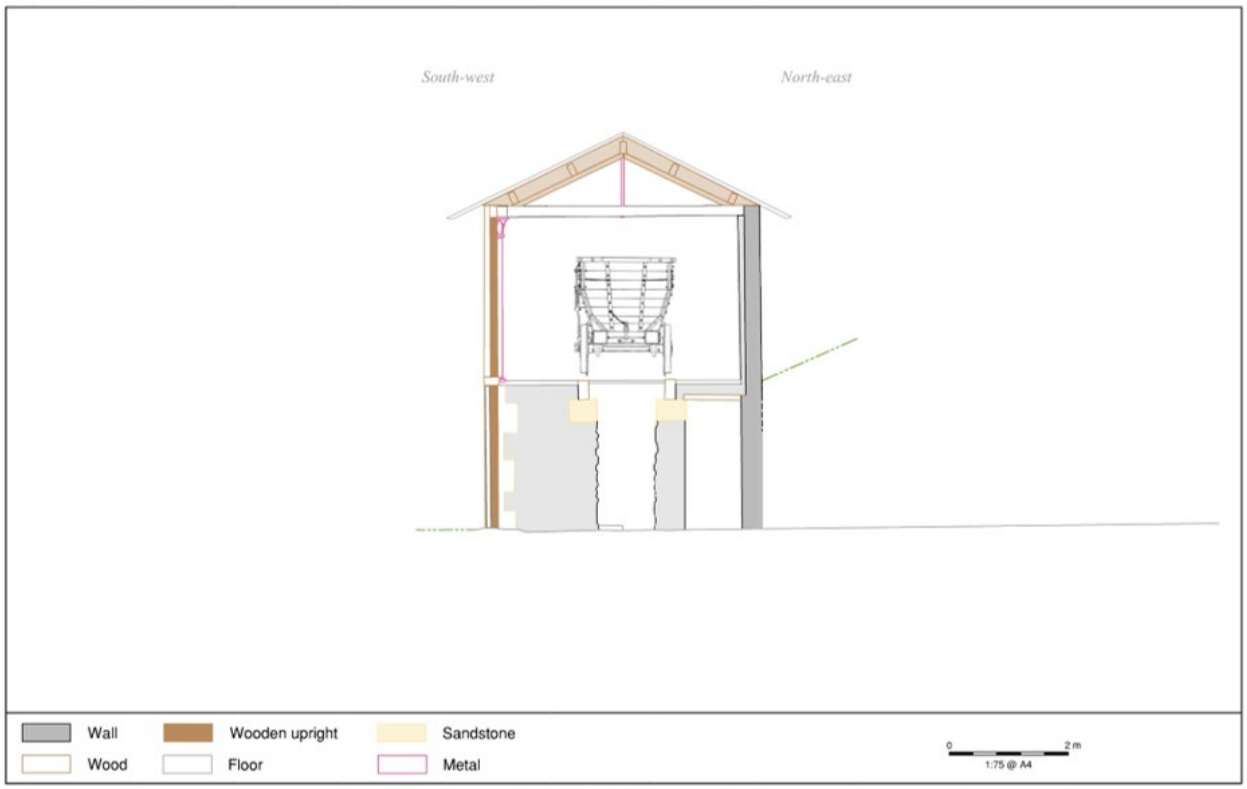

Figure 33: Cross section through the lime depot showing: at first-floor level, the area where waggon unloading took place (waggon added for illustrative purposes only and not to scale) plus the iron decorative columns to the street front; and at ground-floor level, the later breaks in the walls between cells 3 and 4, the sandstone pads supporting the waybeams and the ashlar-fronted walls dividing the cells at street level.

Interior – ground floor

The ground floor is divided into four separate rectangular cells, 3.1m wide, into which lime was dropped from the railway waggons above and stored pending its onward transfer by road. Each dividing wall is keyed into the rear wall.

Two chamfered-and-stopped waybeams run through the length of the building and originally supported the rails above. The beams are supported on sandstone pads built into the top of each cell wall and the gable ends. The waybeams also support additional timbers running at right angles to the rear and front walls which supported the lime-attendants' platforms.

Regularly spaced timbers with chamfered edges (and some with Baltic shipping marks) are located beneath the lime attendants' platform facing the street; two from each set are rebated into the waybeam. The central timber in each case has had an iron hoop, although the hoop only survives in cells 1 and 4; others have holes where fixings were attached. As these hoops were located towards the street front it is possible that they were used to help hoist sacks of lime on to waiting carts.

The cells originally had cobbled flooring, although this can now be seen only in cell 3 where the later concrete floor has been cut away. It is not clear if each cell had a door to the street front when the building was in its original state. Any fixings have been obscured by later doors and jambs made from reused sleepers.

Figure 34: A typical set of three chamfered timbers below the street front lime attendants' platform. The central timber has an iron hoop, and this arrangement appears to have been repeated in all four cells. It may have supported a hoist for moving sacks of lime from cell to cart.

Figure 35: Exposed original stone cobble floor surviving beneath the later concrete.

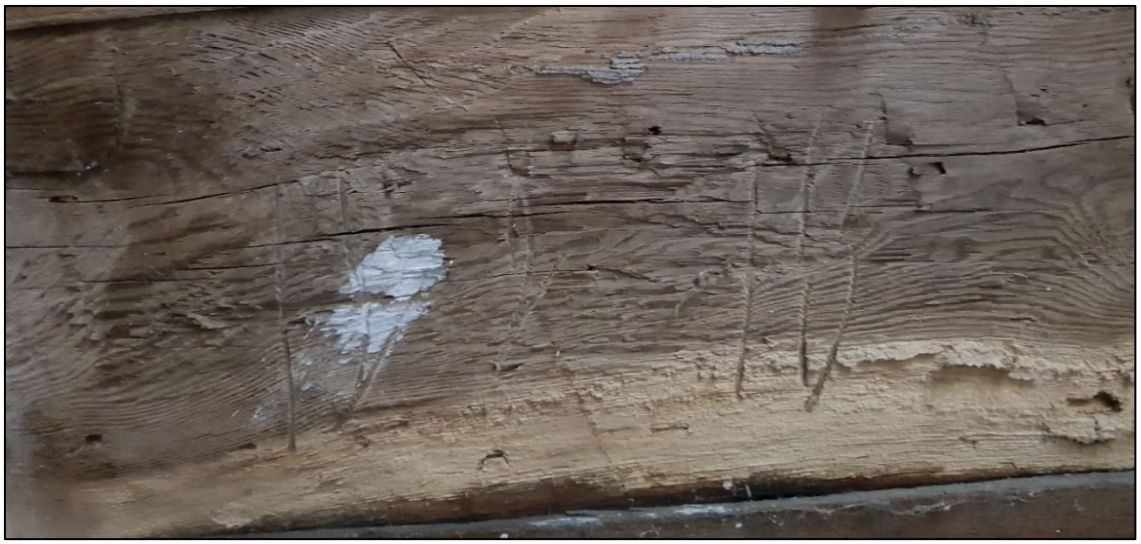

Figure 36: Baltic shipping marks on the underside to the attendants' platform above cell 2. The marks possibly indicate third- or common-grade timber.

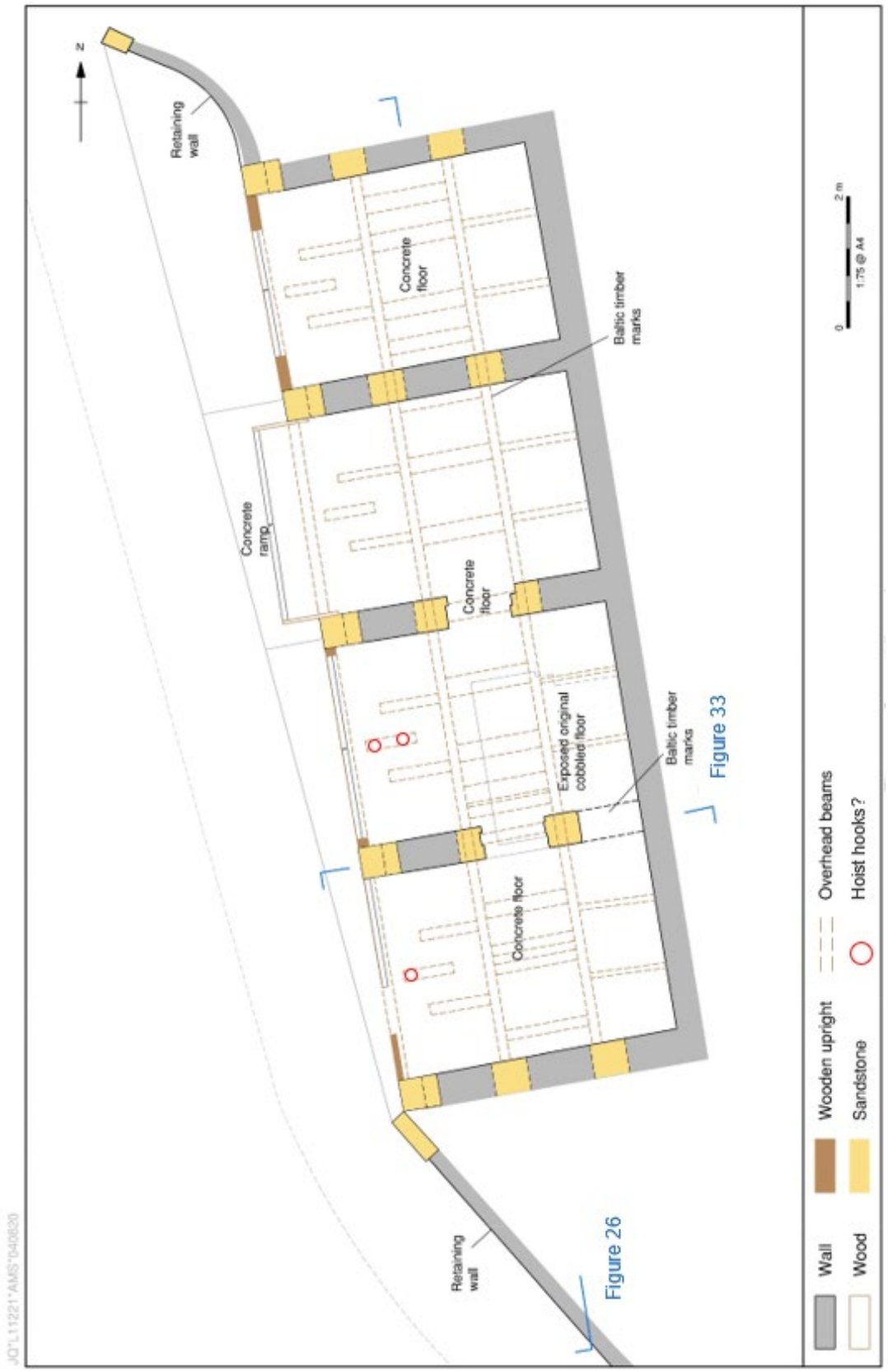

Figure 37: Ground floor plan (larger version of the plans can be seen in Appendix 1).

Later phases – post-Lime-Depot Use

While the building retains much from its original construction in the 1840s, the materials used on its street frontage largely reflect its later uses as a light industrial unit and for storage and garaging. The south-west facing Hopetown Lane elevation is faced with timber cladding at first-floor level. This cladding is of more than one phase having been patched up and altered to accommodate different window openings at different times. At first-floor level, the timber framework which once supported louvres survives, but the louvres were first replaced with four 4-light fibreglass windows (one above each cell) and one of these at the north end was subsequently enlarged to a 3-light window to create additional light for the modern office space. These windows survive in part, but most of the upper floor is faced with an assortment of timber cladding.

At ground-floor level access to the cells was controlled with four double-leaf doors, one for each cell. Timber door jambs were added to hang the doors, and these were made of reused sleepers; some still retain the markings of rail chairs. The doors to cell 1 resemble mid-20th-century garage doors. As they were smaller than the original door opening, the lintel area has been filled in with additional timber planking. The doors on cell 2 have been extended outwards to create additional space. Based on historic photographs these doors are replacements from between the 1960s and 1971 (see figs 16 and 38).

The doors on cell 3 have had some timbers replaced since the 1960s but it is not clear to what extent the whole door has been replaced. The doors on cell 4 are set within an opening that has been reduced in size with timber and so are clearly not original to the structure.

Once the building was no longer being used as a lime depot, the waggon entrance through the north-west archway was fitted with timber plank doors. Over time these doors were patched with metal sheeting and plyboard. In the 1970s the timber arch infill had two portrait openings cut into it, now covered over with plyboard. Some repointing or patching has taken place at the top right side of the arch which is reflected in some internal scarring.

The south east gable arch may have been blocked with brickwork to match the existing. It is not clear when this took place, but as it is not keyed into the main arch structure (see fig 40), the arch was either designed to be open when first built or this is a purely decorative feature. Later still, it had a square timber framed ventilation opening punched through the brick fill which in turn was

Figure 38: The lime depot in 1971 with new doors in cell 2 replacing the doors shown in the 1960s in fig 16 (photo: John Proud, courtesy of Win Proud)

Figure 39: The north west elevation in 1971 (photo John Proud) and in 2019. There appears to have been some historic damage to the arch, also visible internally

blocked with corrugated iron. An aerial photograph dating to 1949 shows a small pitched roof building attached to this elevation which may account for the current depression in the ground.[44]

Figure 40: South-east gable end. The base and jambs are bonded in English Garden Wall Bond. The arch fill is in a simple stretcher bond because it requires no structural strength. The arch fill is also not bonded into the jambs suggesting that it could be a later fill or was designed as a decorative pier and panel construction from the outset. Differential pointing methods might simply reflect periods of repair or alterations associated with a short-lived single storey extension seen on aerial photographs dating to 1949. The brickwork above string course height is different from the rest of the arch infill. The brick plinth along the base is not seen on the opposite gable.

The rear elevation appears to have had no subsequent alterations to it, but beyond the lime depot, there have been significant changes to its surroundings. The present-day retaining walls on either end of the lime depot are concrete composites designed to look like a typical mid-to late-19th century rusticated wall. They may have been built between 1938 and 1950 when the sidings to the rear of the depot were shortened and the area landscaped with a new road constructed towards North Road Station.[45] They appear to replace an earlier boundary shown on maps from 1839, but this was of an unknown height and form. This laying out of the street and the removal of sidings, plus the loss of a substantial railway building to the north-west of the lime depot has undoubtedly altered ground levels in places and created barriers to moving around the building.

Figure 41: Composite stone walls abut the depot. These were probably part of a landscaping scheme from between 1938 and 1950.

Internally, when the lime depot went out of use, the first floor was altered to create a solid floor area. The gap between the lime attendants' platforms was filled in with slim wooden planks each measuring 6½ inches wide (165mm).

This infill flooring was supported with a regular series of reused timber sleepers, about three per cell and positioned between the dividing brick walls. The sleepers were crudely cut into the top of the waybeams and the new timber planks positioned on top. The sleepers were positioned with scarring from chairs facing downwards and they were a variety of different sizes; mostly between 10 and 12 inches wide (254 to 304mm) and 2½ to 5 inches thick (63 to 127mm). This suggests that they came from a variety of sources and are not original to the building. Over time some of the reused sleepers from cell 4 were replaced with narrower timbers.

Figure 42: Left: the former iron staircase from cell 2 to the first floor (image courtesy of Darlington Borough Council). Right: the fixings for the metal stair survive in the waybeam. The trapdoor door, complete with circular handle, lies on the floor below in two pieces.

Two trapdoors above cell 2 were inserted, possibly at different times. The larger one would allow better access for big pieces of equipment or raw materials and the smaller one accommodated an iron staircase. The metal bracket above cell two marks where the metal staircase was added, and a metal hinge is evidence of the trapdoor which lies below (see fig 42).

The north-west corner of the upper floor has a much later office inserted into it. It has been formed from plasterboard on a timber frame and has a free-standing floor and ceiling. It was presumably the construction of this office space for which the first-floor four-light window was enlarged to its present form.

The impost band on the north east gable end was chiselled back to create a flatter surface and a hole drilled into it for a now missing fixing. The opposite impost band on the south-east corner survives behind the office plasterboard.

The use of modern plasterboard internally appears to have been added relatively recently, perhaps in preparation for further alterations to the building.

Figure 43: view from cell 4 through later gaps in the cell walls towards cell 3 then 2. The gap on the right is neater and has properly finished edging to the brickwork on the other side; it is an earlier gap possibly late 19th century when the lime depot was repurposed for light industrial use. The sandstone pads supporting the waybeams which supported the rails above can be seen.

Once the building was re-purposed for light industrial use, the inability to pass between the cells at ground floor level became inconvenient. The first cell wall to be broken through was between cells 3 and 4. Here a section of dividing wall was taken down immediately adjacent to the rear wall; the footings of the dividing wall can still be seen in the floor. This gap has a timber lintel inserted with Baltic shipping marks visible. The marks consist of the letters F and T which might refer to the shipping ports of Filipstad or Carlstad in Sweden and then a reference to the class of timber, 3rd or 4th class. Two courses of brick fill the space between the lintel and the floor timbers above.

Figure 44: Wall footings visible where a gap was inserted between cells 3 and 4 sometime after the lime depot changed use, possibly in the late 19th century

Other gaps knocked between cells 2 and 3 and 3 and 4 are much more recent and have been crudely executed; the rubble resulting is still inside the cells. Cell 1 remains separate and can only be accessed from the street front.

Figure 45: Baltic shipping marks in a later lintel insertion between cells 3 and 4

Figure 46: Left: reused sleepers cut into the waybeam to support the infill flooring. Right: reused sleeper used as a door jamb in cell 1.

One of the waybeams to the front of cell 1 and a sleeper in cell 2 both display crescent-shaped wear marks. The cause of this is not clear, but it may have been

caused by some repetitive action presumably when it was used as a blacksmith's or welder's shop.

Over time, the need to create a little additional floor space in the ground floor resulted in cell 2 being extended forward slightly; the extension material appears to be timber and plywood. The doorway in cell 4 was reduced in size.

Figure 47: Crescent-shaped wear marks in the waybeam (left) and a reused sleeper (right)

Figure 48: Cell 3 looking towards the street frontage. Dressed sandstone ashlar blocks terminate the brick dividing walls to the street front. The door surround is formed with reused sleepers.

The original uneven cobbled floor surface was later buried beneath a concrete floor throughout.

Building Analysis

Establishing a relative chronology

The lime depot contains a number of features which are original to its use and therefore those features are of the highest significance. The original features are generally distinctive from later additions because they are of high quality with simple decorative finishes. For example, internally, the waybeams are chamfered and stopped, the timbers added to the undersides of the platforms facing the street front have chamfered edges, the cast iron columns have decorative capitals and the louvre upright timbers have a moulded edge. Externally the brickwork is enhanced with the decorative stone impost bands and the orange rubbed brick arch on the south gable which may only ever have had a decorative function.

Later additions appear to have made use of reused materials such as sleepers and are crudely cut into original timbers. Over time the character of the lime depot frontage became one of makeshift repairs.

The features original to the lime depot are therefore:

- The external brick walls including two archways with stone impost bands (the SE one with its arch ring formed of orange rubbed brick)
- The rear elevation including the four air vents and buttresses
- The roof structure and probably the materials
- The yard area to the front (now grassed over; it was originally larger)
- The curved stone wall which abuts it.
- The brick internal dividing walls (remains of) which created the four cells at ground-floor level, with their ashlar stone facings on the elevation overlooking Hopetown Lane
- The sandstone pads supporting the chamfered and stopped waybeams
- The attendant's platforms on both sides of the first-floor track
- The cast iron columns, wall plates and timber framework for the louvres including floor catches
- The cobbled stone floor at ground level (preserved below the concrete)
- The chamfered timbers below the platform facing the street with iron hoops (some with Baltic shipping marks)

There are a number of architectural features which definitely are not original:

- The concrete flooring
- The timber doors into the cells

- The timber infill between the waybeams
- The gaps in the cell walls

As the doors into the cells are all mid-20th century or later, it is not clear if the depot as built had any doors at street level. There are not many extant lime depots of this date that can be used for guidance. Rowley lime depot of 1834 (built by the Pontop & South Shields Railway at West Boldon, Tyne and Wear), now reconstructed at Beamish, is built entirely of stone. Its first floor is enclosed and fitted with window openings but has no doors at ground level (fig 54); however, it was located within a yard which would have offered some security. Goathland lime depot (North Yorkshire) built in 1865, designed by Thomas Prosser for the NER, has neither windows nor doors (fig 55) and was also located in a yard. Images of the derelict S&DR lime depot at Eaglescliffe/Yarm show it had simple cells at ground-floor level although there is no evidence of the building that covered them. Nor do any detailed images survive of the first depot in Darlington. Further discussion of comparative building types is provided in the following section on National and Regional Contexts.

The S&DR Company minutes make a number of references to the need to restrict access to the depots and the Merchandising Station by fitting gates. This was instructed for the depot at Darlington in 1836 and on 2 June 1837, the engineer was instructed to place a gate at the merchandising yard 'to keep the public out'.[46] These concerns regarding unauthorised access to the depots in the mid-1830s would suggest that a depot that faced directly on to the street would have some means of controlling access. Unfortunately, any fixings to the sandstone ashlar blocks on either side of the openings are obscured by the existing timber jambs and the only markings visible on cell 4 are inconclusive and could be the result of erosion.

As the building sat in isolation outside the larger original depot to the south east, there were no apparent facilities on site to weigh and purchase the lime. This could have been done elsewhere (there was a weigh machine further up the branch line) or relatively small bags of lime could have been weighed inside the building using a spring balance or similar; there are a number of hooks screwed into the base of the lime attendant's platform on the south side (street front) which could have supported such a mechanism. Access into the cells was presumably controlled by an agent so that only those with a claim on the lime could take it away. Alternatively, if the same company provided the lime as used the lime, then the need for security may have been reduced since the lime delivery would be expected and loaded into carts the same day. If lime was to be left overnight, doors would have been required.

THE SETTING OF THE LIME DEPOT

The setting of the lime depot is the story of the pioneering days of the railway and the impact that it had on Darlington. It is an area of great change; most of this change being brought about by the need for workers' housing, a need created by the railway and associated industries. It is this association with the railway heritage that has justified the area being designated as the Northgate Conservation Area and is also now part of the Heritage Action Zone.

Prior to the Stockton & Darlington Railway being built between 1822-5, the area consisted of fields with an occasional spring and the tree-lined Cocker Beck winding its way towards the Skerne. Whessoe Lane with its profusion of violets[47] ran from North Road, where the stage coaches travelled north and south, to Patches Lane and Aycliffe.[48] It survives as Station Road (south part), renamed in the light of the railway station built 1842, and Hopetown Lane, named because it led to an area of workers' housing around Alliance Street and Otley Terrace known as Hope Town. The Cocker Beck is more constrained by buildings and roads now, but still retains some lush surroundings as it passes through the former gardens of Henry Pease, set out in 1837 adjacent to the coal and lime depot, and now known as The Denes.[49]

Important elements of the setting of the lime depot are the surviving elements of the pioneering railway heritage and the associated workers' housing.

Workers' Housing

Although the S&DR built the branch line and the first depot here, other impacts on this rural environment were minimal until 1830 when the railway attracted industry to the area, such as Kitching's Foundry, Hope Town Foundry, further building by the S&DR in the 1830s and 40s and the gas works. Workers needed housing and so the streets south, west and east of the lime depot are lined with terraced houses which contribute to the character not just of Northgate Conservation Area but the surrounding townscape as well. This character is defined by the use of brick with stone dressings, slate-covered roofs and buildings of predominantly two storeys; the lime depot conforms to this character. Render has been added as a later addition to a number of houses and the substantial S&DR Carriage Works of 1853 to the north west of the Lime Depot is also rendered and had stone dressings. Although the new development of Pullman House opposite the lime depot is three storeys high, its height has been minimised by setting it into the ground. There is therefore a distinct character to the area defined by scale, massing and materials.

Figure 49: The Denes are what survives from Henry Pease's gardens of 1837 and which originally bordered the 1825 coal and lime depot. In the distance are the houses of Westbrook, built in the 1860s-70s for railway managers.

Henry Pease's Gardens and Westbrook

In the context of the increasing industrialisation of 1825-40s, Henry Pease decided to capture some beauty by leasing, then purchasing, land from the S&DR to create, in 1837, gardens bordering the Cocker Beck immediately south-west of the first (1825) coal and lime depot. The depot wall still retains scarring created by lean-to greenhouses associated with these gardens. The border with Pease's garden on Station Road appears to have had cottages and a bath, all decorated in a neo-Gothic style; elements of these survive as blocked windows and doorways in the early stone wall facing the road, nearly opposite the Lime Depot. The large houses of Westbrook which were subsequently built on Pease's gardens in the 1860s-70s also have a railway connection, being built for railway management staff. Westbrook has a distinctive character of its own as it overlooks the former gardens and has retained some of the garden character created by Henry Pease. It consists of highly-ornamented Gothic

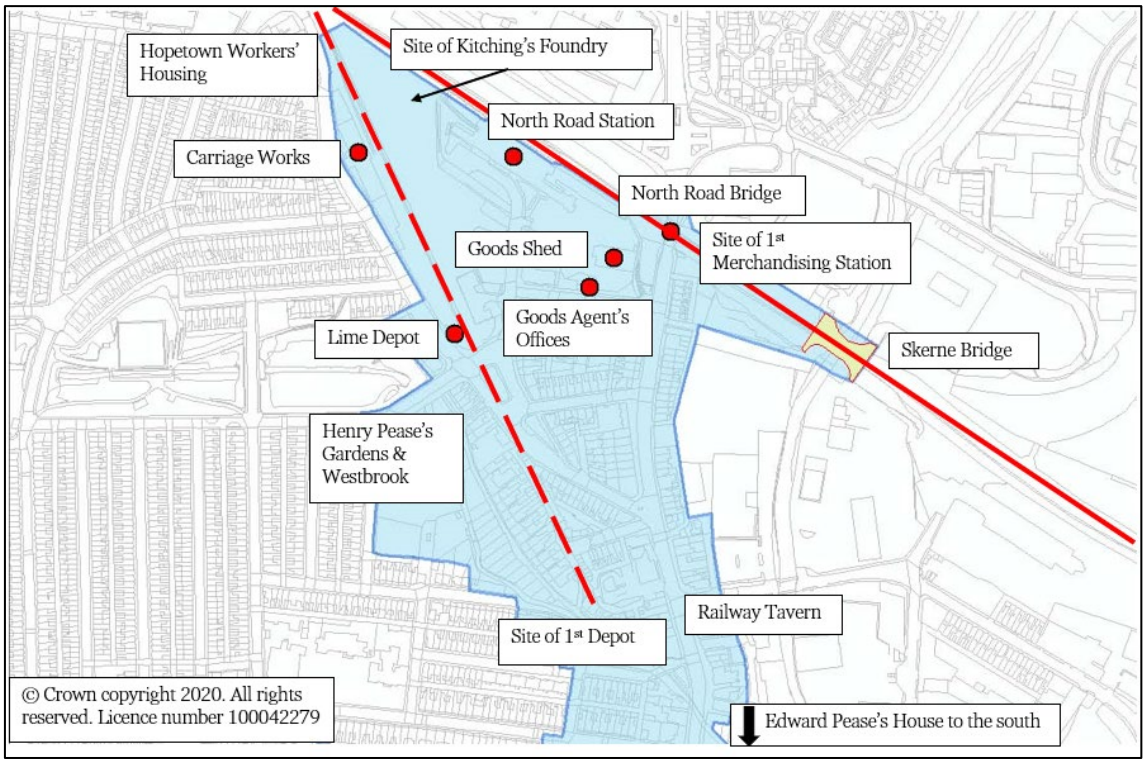

Figure 50: Railway related buildings and places (blue shaded area is Northgate Conservation Area; red dots are listed buildings; green shading is a Scheduled Monument, solid red line is the S&DR mainline; dashed red line is the Darlington branch line)

Revival houses exemplified by the work of the architect G. G. Hoskins and the mason Robert Borrowdale.

The pioneering railway buildings

In 1831 Alfred Kitching set up an ironmongery and foundry business opposite the existing station and this sparked further development around the railway. The key buildings associated with this embryonic, and at times, experimental phase of railway development, were located in this part of Darlington. In addition to the Lime Depot, these buildings include the Goods Shed, the Goods Agent's Offices, North Road Station, Hopetown Carriage Works, Skerne Bridge, the bridge over North Road, and the buried remains of the first merchandising station, Kitching's Ironworks, Hope Town Foundry, and the first (1825) depot. The large open green space between the station and the Hopetown Carriage Works was allotments in the 1850s reflecting its current use as green space (and disguising its intermediate use as a locomotive scrap yard). Collectively these designated and non-designated buildings and structures form a distinctive character area whose historic associations are with the birth of the railways. They all contribute towards different parts of the development of the railway.

The Goods Shed, listed grade II* (NHLE 1121262), pre-dates the lime depot, representing the S&DR's experimentation with single-storey off-loading and storage of 1833.

The Goods Agent's Offices, listed grade II (NHLE 1121282), are broadly contemporary with the lime depot dating to 1840. It was designed as a freestanding office building within sight of the Merchandising Station for use by the S&DR Goods Agent and his staff. It borrowed some architectural features from the Goods Station such as the use of rusticated stonework and string coursing to divide the elevations, but it also had its own distinctive and modern window style and was domestic in scale. [50] It has good intervisibility with the Goods Shed and to a lesser extent with the later station.

The Station is listed grade II* (NHLE 1322962) and, although its original 1842 layout is altered, it retains its basic Italianate style which represents the early days of railway station design. Being broadly contemporary with the lime depot it may also share some other associations such as influence by the same architects or builders (John Harris and Thomas Storey for example). Like other buildings in the area, it is low lying, is built of stone and brick, but is unified with lime render and has good intervisibility with other railway buildings.

The Hopetown Carriage Works of 1853, listed grade II (NHLE 1121229), are located along Hopetown Lane and are the next buildings to the lime depot. They reflect the shape of the station which it faces with long single-storey wings and a small central three-storey section. The use of render with stone detailing reflects the station's appearance and a number of architectural details can be found in both sets of buildings where Joseph Sparkes, the S&DR architect, was responsible for both. They represent one of the last buildings to be constructed by the S&DR in the immediate area.

The association with the first coal and lime depot of 1825 is important, but much of this has been destroyed. Fragmentary remains of the depot wall and a jumble of architectural features that might belong to the 1825 depot, or might belong to Henry Pease's gardens at Westbrook which partly overlie them, are not well understood, but provide a context to the later depot. The neo-Gothic blocked arches in the stone wall on Station Road may be the remains of Westbrook Cottage, but the so-called Tallyman's Cabin behind the later houses of Westbrook was clearly inside the coal depot boundary and its now-missing crenellated top bears a remarkable similarity to two of the platelayers' cabins on the mainline at Simpasture (now destroyed) and Shildon. [51] The angle of Station Road from North Road has also fossilized the shape of the first depot in the street pattern. The heritage interest of the first depot is therefore harder to

Figure 51: The much altered 1825 Depot walls in 1972 with scarring where garden buildings leaned against them from 1837. The walls have been heightened in brick and reused for subsequent development (photo: John Proud, courtesy of Win Proud)

understand and more difficult to identify, but it still makes a contribution to the setting of the lime depot and to the special interest of the Conservation Area.

Skerne Bridge is a scheduled monument (NHLE 1002331) and dates to 1825. Designed initially by George Stephenson as an iron bridge but re-designed by Ignatius Bonomi in stone, it was the largest engineered structure on the mainline. As such it was a symbol of some pride for the S&DR and featured on most of their publicity and headed notepaper.

North Road Bridge, listed grade II (NHLE 1121286) was constructed in the 1840s with the support of the S&DR and with some input from Ignatius Bonomi to replace the level crossing that was first provided here.[52] The extensive cuttings that took place at that time have altered ground levels and removed the original approach to the Goods Station from North Road. This part of the mainline was also where passenger coaches appear to have joined the line from the town centre and is also adjacent to the site of the first merchandising station of 1826-7. This area was therefore an important part of the S&DR but extensive ground disturbance and development will have reduced its archaeological potential.

A little further afield are a few more important railway buildings, which could be considered to be part of the depot's setting and context. The Railway Tavern on North Road is one of three inns built by the S&DR in 1826-7 primarily to provide refreshments for depot workers and customers. It is still an inn today.

A little further south on Northgate is the house of Edward Pease – the founder of the S&DR. There are other smaller details in the area which are reduced sufficiently to be archaeological rather than architectural, such as the site of the first merchandising station of 1826-7, the Railway Tavern Brewery and Stables, the supermarket clock rescued from the works offices and the remains of the S&DR railway works which were established on Whessoe Road in 1863, but largely demolished after its closure in 1966.

This part of Darlington is therefore of considerable historic interest having been chosen as the location for most of the Stockton and Darlington Railway's subsequent development in Darlington and all of the key buildings on this site are therefore from the first generation of the Railway Age.

Place names

The railway heritage is also evident in the place names. McNay Street, developed in the 1870s, is named after the S&DR's Engineer and Secretary, Thomas Mac Nay. Stephenson Street developed at the same time was named after George Stephenson (1807-1881) who was a senior manager with the S&DR and later the NER until 1873.[53] Otley Terrace is named after Richard Otley, the S&DR's surveyor and secretary from 1825 who designed the new town of Middlesbrough in 1830. A few surrounding streets are named after members of the Pease family, such as Arthur Street named after Arthur Pease, son of Joseph Pease. Surtees Street may be named after the colliery owning family of Shildon who built the Surtees branch line through Shildon to the mainline in 1831.

Immediate surroundings of the lime depot

Closer to the lime depot, its setting has a number of features which help to understand its early use. The high ground to the rear and sides is where the sidings ran and the grassy enclosure in the junction of Station Road and Hopetown Lane is where some of the sidings terminated and could contain buried archaeological remains. It is not clear how the landscaping of 1938 affected the original ground levels and to what extent below ground remains might still survive here.

The lime depot sits in a relatively prominent position within the Conservation Area. Its run-down appearance therefore has a greater impact than a less prominent building might. The short length of curving wing wall next to the lime depot is a good quality piece of building, but the reconstituted concrete boundary wall features more strongly to the street front and frames the building. This probably dates to the post-1938 landscaping but replaces a boundary present on Dixon's 1839 plan.

Elements which contribute to the setting of the lime depot are therefore:

- Historic associations and intervisibility with the pioneering railway heritage provide an historic context
- The reinforcement of the rail heritage through street names
- Associations with the sidings to the rear and on the approach to the north west gable. Although much altered, these should be considered as areas of high archaeological potential.
- Associations with the workers' housing at Hopetown and the shared building materials, scale and massing

NATIONAL AND REGIONAL CONTEXT

The S&DR was pioneering in its approach to building a major piece of transport infrastructure, therefore it is difficult to find railway-related architectural references which might have influenced the design of its depots. The lime depot, as we have seen, was a variant on the coal depot, with the addition of a roof to protect the lime from rain. The coal and lime depot as a building type was distinct from the railway goods shed and was used in many rural stations until the Beeching cuts of the 1960s. Prior to the development of the railway, some areas of the country relied on the canal network to transport goods, but the North East region had no canals and so there are no canal-related buildings which might have influenced the design of the coal and lime depots. It was thus to the coal industry and its pioneering engineers that the S&DR looked when developing its railway and associated buildings.[54]

Edward Pease sent word to Killingworth engineer George Stephenson in 1821 to discuss the proposals for a railway and to consider the use of locomotives resulting in a new Act of Parliament in 1823. The appointment of Stephenson as the S&DR's surveyor in 1821 and engineer in 1822 was significant, because he set out to design the line, including its gauge, and associated structures such as the depots, around his expertise derived on the Hetton Railway, Tyneside and Killingworth in particular.[55]

Stephenson also persuaded colleagues and acquaintances, many of whom were engineers, carpenters, surveyors or builders, to join him on the S&DR. For example, Wylam and Walbottle engineer Timothy Hackworth joined him first at Forth Street in Newcastle and then on the S&DR. Thomas Storey was Stephenson's nephew and became the S&DR's resident engineer, while Stephenson's brothers joined him on the S&DR as engine drivers.[56] Therefore, the methods of transportation, delivery and storage of mineral freight were borrowed directly from the coal industry of Tyneside, evolved and improved on the S&DR and then exported around the railways of the UK.

The Lime Depot on Hopetown Lane continued the use of delivery via high level trackbed from which lime could be dropped into storage cells below, first used at the 1825 S&DR depots. This system was also derived from the Tyneside coalfield, in particular, the use of bottom opening chaldron waggons with sloping sides which assisted in rapid emptying. This method originated on the coal staiths of Tyneside where chaldrons had been running on wooden rails delivering coal since 1760 and by 1812 were being used on coastal coal drops. The S&DR appears to have adapted this method of unloading for their landsale depots. The lime waggon was an adapted coal chaldron waggon lined with iron plate to protect it from the heat of the lime.

The bottom opening chaldron waggon went on to be used at all the S&DR coal and lime depots along with the raised trackbed over the cells and continued in use long after the S&DR amalgamated with the NER. As general productivity increased due to advances in technology, the chaldron waggon had to increase in size, but remained in use until the late 1960s.

The waggons then developed into the super-efficient bottom emptying Merry-Go-Round Trains from the 1960s. Fittingly, prototypes were developed in Darlington and most batches produced in Shildon on the former S&DR. Coal continued to be the motivator here as they were used to carry coal to power stations until the decline of the coal industry in the 1980s.

If the S&DR looked to the coal industry for inspiration in its embryonic days, the S&DR itself influenced the development of railways and specialised depots, and the development of the chaldron waggon. This influence extended beyond the S&DR territories. In 1832 James Walker and George Smith visited the depots on the S&DR line and reported that what they had seen confirmed them in their designs of coal and lime depots at the termini of the Leeds and Selby Railway.[57] They were also to adopt the design of the S&DR waggons and they erected a sample coal staithe at Marsh Lane. As a consequence, the Leeds and Selby coal and lime depots also had road and rail access at different levels and the lime depot was roofed. [58] Neither survive however. The creation of specialised depots was continued to the extent that many rural stations had a coal depot, some also with a covered lime depot adjacent (see Goathland below).

The functional design of the depots on different levels with delivery via a bottom-opening chaldron waggon continued to develop on a larger scale too. In London at King's Cross, the Great Northern Goods Station, which consisted of a Goods Yard and separate Coal Drops Yard, began to be developed from April 1849, designed by Cubitt and completed in 1852. Here substantial coal depots, accessible by track, reflected the continuing dominance of coal from the North East and Yorkshire in terms of volume and profit, but no lime depots. The Eastern Coal Drops, built in 1851 consisted of a long, covered structure (with an adjoining brick viaduct) of three storeys, two consisting of arches, with the trains entering and leaving the shed via four tracks on the upper level beneath a wide-span wooden roof. The coal was dropped from the bottom-opening waggons through a gap into the middle ("hopper" or loose bulk container) level, carried on cast-iron columns and beams, where it was graded and then shovelled down chutes into sacks or carts at yard level. The structure, also not dealing in lime, was divided into 48 cells and represented a considerable expansion from the typical S&DR depot. The scale of these structures was exceptional, but it is not hard to see their functional origins with the S&DR depot and even the method of direct sales to customers from the railway company depot via agents. The King's Cross Coal Drops went out of use in 1870,

were redeveloped into warehousing and the Eastern Coal Drops have since been redeveloped into a shopping district. [59]

As with goods sheds, architectural embellishments on depots were rare[60] and perhaps the Quaker origins and tight finances of the S&DR precluded unnecessary ornamentation. The coal depot generally remained as rows of brick or stone cells below a trackbed, so there was little scope for detailing. However, the coal depot at Bowes Station (South Durham & Lancashire Union Railway, built by the S&DR in 1861) did have some modest decorative capping to the cell tops but was no competition for its neo-Tudor station house complete with half timbering, mullion and transom windows, finials and pinnacles. Only lime depots with protective roofing offered any significant opportunity for decorative features but surviving lime depots are all simple sturdy structures. The Hopetown Lane example with its stone detailing and rubbed brick arch is therefore slightly more decorative than other examples.

Many railway stations throughout the UK had coal delivered as the primary source of fuel for heating and industry, but the split-level approach with bottom-opening chaldron waggons was not universal. Railway companies beyond the S&DR and later NER territories developed other methods. Some favoured the use of a multi-purpose goods shed in a goods yard served with sidings which might handle the shifting of coal but also a wide variety of other goods. These had no retail function but handled goods in transit.

Figure 52: Tooled and margined coping to the cell wall tops at the coal depot, Bowes Station.

Overall, many depots (usually coal) in the NER territories photographed by railway enthusiasts before their destruction had a two-tier approach with coal delivered at a higher level and dropped into cells below (Hexham, Morpeth and Bowes for example). The use of archways to create the delivery ramp does not seem to have been extensive, but in any case, this design appears to have been reduced in the 1830s at some S&DR depots.

Figure 53: The remains of the coal cells at Bowes Station of 1861 (South Durham & Lancashire Union Railway, formed by the S&DR). No lime depot was provided here but the construction similarities are notable including large sandstone pads to support the waybeams, attendants' platforms either side of the track where the laden waggons would be opened and the coal dropped into the cells below and good ashlar facings to the cell walls creating the appearance of stone piers. To prevent the weight of the waggons pushing the walls outwards, the walls were battened back, and additional support provided with iron bars. No such extra strengthening was required at lime depots which had a first storey and roof structure to resist outward forces. Bowes Station and the coal depot are ear-marked for demolition when the A66 is widened.

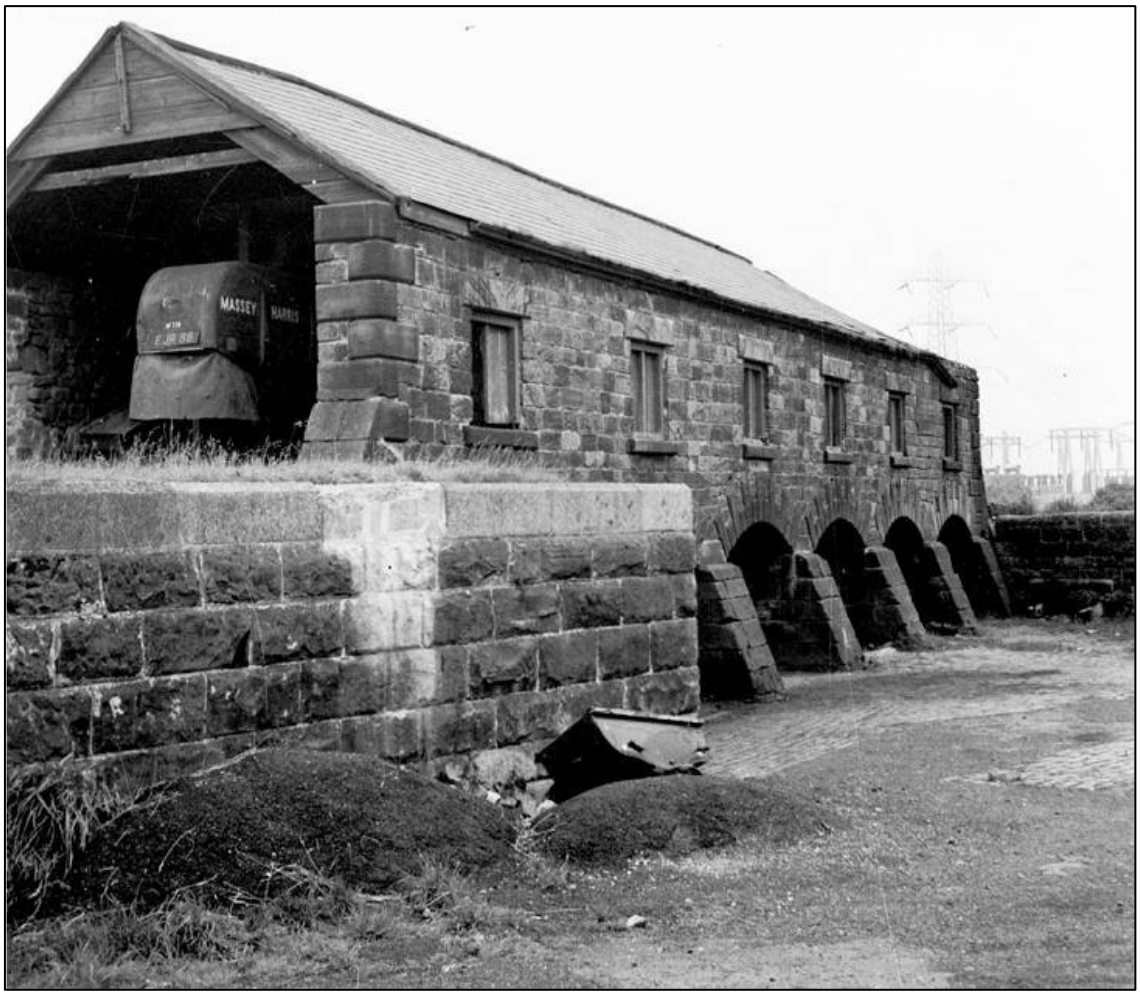

Figure 54: The Boldon coal and lime depot dating to 1834. It shares the high-level rail approach into a covered building with the Hopetown example. Six cells with buttressed supports and windows to the front elevation. (Photo: Beamish The Living Museum of the North NEG1581 reproduced with permission)

As to surviving lime depots across the country, the coal and lime depot at West Boldon which was part of the Stanhope & Tyne Railway (and therefore part of the S&DR Company) dates to 1834, although it was carefully demolished and rebuilt at Beamish Museum. It has two storeys with arched buttressed cells below. It is enclosed at first floor level, but with windows and a cobbled yard to the front. The cells at ground level had no doors, but unlike the Hopetown Lane depot, the building was within an enclosed compound where public access would be restricted. It was open at both ends at track level.

Figure 55: The covered lime depot at Goathland with the exposed coal depot beyond. No doors seem to have been necessary at either set of cells because they were part of a larger goods yard. The boulders to the front protect the dividing walls of the cells from careless reversing.

The coal and lime depot at Oakwellgate Station, Gateshead now known as Maiden's Walk Coal Drops is a potentially early example of 1838-44. They were added as a secondary feature to the Brandling Junction Railway's Oakwellgate station, built across open ground held by Cuthbert Ellison on lease from the Bishop of Durham. The drops consist of a series of 15 piers built of local sandstone rubble with dressed quoins. Two phases of construction are apparent; the eight southerly drops are shown on an undated plan by Thomas Bell. On Oliver's later plan of 1844 the seven southernmost drops are covered with a long building, while the remaining six are open. This is a typical layout for a combined lime and coal depot, with the lime being covered. The 1st edition Ordnance Survey Town Plan of 1857 for Gateshead surveyed at 1:500 confirms the function as a combined coal and lime facility depicting it as 'Oakwellgate Depot (Coal and Lime)'. The cells appear to have had timber chutes for dropping coal into the waggons below and may therefore be a combination of earlier

riverside/coastal staithes and the S&DR combined coal and lime depots with a retail function. These rare survivals are listed grade II (NHLE 1248565).[61]

The lime cells at Goathland are part of a station complex designed by Thomas Prosser dating to 1865 and so they are much later than the lime depot at Darlington. They too conform to a style of a two-storey covered building with the rail track at a higher level and two street-level cells open to the yard. It has no openings at first floor level apart from the entrance for the waggons. It is adjacent to a three-celled coal depot which has no protective roof. It is listed grade II (NHLE 1295785) and sits within the Goathland Conservation Area; however, the lime cells are not mentioned in the listing and so are excluded from database searches of lime depots. [62]

The lime depot at Norham Station, Northumberland for the York, Newcastle and Berwick Railway was of a different design. Here the lime store was located in an open shed of one storey with side walls only and a pyramidal roof. The lime was stored in the pit beneath. Again, the position within a larger station yard may have afforded the lime (and coal in the adjacent depot) all the security that was required. The main market for this lime must have been agricultural, given its rural setting. This lime store and the adjacent station building also dating to 1849-1851 are listed grade II (NHLE 1303572) and represent one of the few lime depots to carry such statutory protection.

Velvet Hall in Northumberland had a four-cell lime depot as part of the wider goods yard of the station complex originally built about 1849 but extended subsequently. It was part of the York, Newcastle & Berwick Railway and the original station building was designed by John and Benjamin Green. Here the covered lime depot was approached by sidings that passed all the way through and continued to the coal depot and the weigh machine.[63] Given its rural nature, the main market for the lime here was certainly agriculture. The station at Velvet Hall survives, but most of the goods yard has been destroyed. One small, single-storey building survives close to the road which may be part of the original goods yard. [64]

Very few lime depots are represented in the national designation records or local Historic Environment Records. Indeed, the depot as a type, whether coal or lime, is not recognised in Biddle's gazetteer of historic railway buildings or Binney and Pearce's book on railway architecture and as with other publications, is overlooked in favour of the goods shed.[65] Lime processing sites are better represented, particularly as scheduled monuments, although some of these sites also include a lime depot for storage such as the Mealbank Quarry and limeworks near Ingleton.[66] This depot was a relatively late addition of 1892 and part of the complex designed to link the quarry and kilns to the railway for

distribution. Similar and also later lime works included the Craven and Murgatroyd lime works near Langcliffe Mill, also scheduled.[67]

The remains of a lime depot of 1836 may have been incorporated into a later (1881) NER goods warehouse and engine shed on London Road in Carlisle. By default it is listed because of the architectural interest of the later goods shed, designed by John Bell for the NER, but not enough survives to understand its form or design.[68]

With the growth of road traffic after the war and the Beeching closures, many coal and lime depots became obsolete and were swept away by subsequent development. The structures are difficult to reuse without loss of significance and so tend to be wholly demolished, although coal depots have been reused within a residential development as parking spaces at Scorton (1846, York & Newcastle Railway). The former Gilesgate Station in Durham of 1854 is more typical where the station buildings have been reused as a hotel and there is some fragmentary survival of goods yard structures in the car park, but the coal and lime depot has been lost to road widening.

Overall, it appears that there are only four sets of lime depots or cells which carry statutory protection which represent the storage and delivery of the lime rather than its processing. These are:

- The Hopetown Lime Depot in Darlington
- Goathland Station (but the lime depot is not referred to in the listing)
- Coal Drops, Maiden's Walk, Gateshead (but the lime depot is not mentioned in the listing)
- Norham Station

A wider assessment of this distinctive railway building type along with the coal depots (as opposed to goods sheds) and associated railway inns would be beneficial and help to ensure that their significance is adequately represented in the national lists and local Historic Environment Records.

STATEMENT OF SIGNIFICANCE[69]

Very few lime depots survive nationally and only three are currently listed in England. Others may survive but are often described in record systems as coal depots or railway depots and sit within railway complexes that have gone on to be developed for other uses. Lime depots are therefore under-represented in national and regional records and consequently may not have adequate protection through the planning process.

At Darlington, a substantial amount of the building fabric survives, and the building is of **considerable evidential value** because of the information the fabric contains which helps to explain the process of how quick lime was delivered by rail to depots for onward sale and distribution. The surviving fabric is particularly important because there is little documentary evidence that tells the story.

The building's evidential value extends to its setting. The building materials are similar to those used on the nearby workers' housing of brick and dressed stone, although most post-date the lime depot. The street pattern and street names also have links to railway heritage. It is particularly enhanced by its geographical association with the other railway buildings which collectively document the story of the modern-day railway network from 1825 to 1863.

The evidential value also includes below-ground remains. At the lime depot, the earthwork remains of sidings survive, although they are much altered. This archaeological interest might also extend to the grassy island in the junction between Station Road and Hopetown Lane where the sidings to the rear of the depot once extended. On the yard in front of the building, it is likely that the original ground surface, probably of cobbles, survives and inside the building it is clear that the cobbled surface has survived under the modern concrete floors.

Those elements of the greatest evidential value are:

- The street frontage appearance of four bays to the ground level
- The brick internal dividing walls (remains of) which created the four cells at ground floor level
- The external brick walls including two archways with decorated stone impost bands (and one with rubbed orange brick)
- The sense of a through-way to the NW gabled archway
- The slate roof with overhanging eaves and exposed corbels
- The dressed stone facings to the cell frontages
- The padstones and the stop-chamfered waybeams which rest on them
- The unaltered rear elevations with its four vents and buttresses
- The attendants' platforms on both sides of the first-floor track (and the clear distinction between materials used for the platforms and the

subsequent filling in), plus chamfered timbers below the platforms with iron fixings
- The stone cobbled floor at ground level
- The yard space to the front
- The cast iron columns and timber louvre framework
- The street frontage at first floor level for evidence of its changing methods of providing shelter and ventilation
- The sandstone curved wall abutting the NW end
- The remains of altered sidings to the north, east and possibly to the south
- Baltic shipping marks on internal timbers

Future works to the building should seek to add to the archaeological record and understanding of the building's original form by recording evidence of door and rail fittings which are currently obscured by later adaptations.

The building is of **considerable historical value** because of its likely association with the pioneering phase of the Stockton & Darlington Railway. From the outset, the railway promoters saw the improved transportation of lime as being a major benefit to farmers and landowners and it formed a critical element of their business plan.

Although it is not in the first phase of S&DR depots, it has a context based on the increasing demand for coal and the need to supply lime outside the original coal and lime depot of 1825. It also reflects the evolution of railway depots since 1825 while still sitting well within the pioneering or heroic phase of railway development (as defined in the Historic England Listing Selection Guide for Transport Infrastructure 2017, 2-3).

It is associated with the boom in building necessitated by the industrialisation brought about by the railway. It also pre-dates the boom in the iron industry of the 1850s when the demand for lime would shift in favour of massive quantities of crushed lime for the blast furnaces and lead to larger scale production and transportation focused around Witton Park and Teesside. This depot with its domestic scale would be too small for this industrial phase of ironworking and not in the best location.

The lime depot is of **some aesthetic value.** It occupies quite a prominent position within the Conservation Area being located on a corner and a junction. Although of relatively modest architectural detailing compared to station buildings and even some goods sheds, for a building of its type it is of unusually positive aesthetic value with its sandstone ashlar detailing and ornamented cast-iron columns facing the street frontage and its gable end arches with impost mouldings. This positive aesthetic value is currently obscured and marred by

the patchwork of later boarding, makeshift repairs, mis-matched utilitarian doors and self-seeded trees.

Its later light-industrial uses as a garage, storage and welders did not lend itself to much investment in the building's external appearance. Alterations were largely short term to meet an immediate need and rarely contributed towards its aesthetic appearance.

Perhaps because it has been an insalubrious looking building for so long, and not obviously connected to the railway network when seen at street level, the lime depot has not featured in many photographs, even those by renowned railway photographers.

Those features which make the greatest contribution to the building's aesthetic value are:

- The brick archways and the SE archway with its feature rubbed orange brick arch in particular
- The stone impost bands
- The 19th-century brickwork in various bonds
- The dressed stone facings to the lower storey's dividing walls
- The pitched slate roof with overhanging eaves
- The curved sandstone abutting wall
- The cast-iron columns with lily leaf capitals

The lime depot has potential to increase its aesthetic value through the removal of many of the later, makeshift additions and by thinning out or removing trees from its immediate surroundings. The building will still need a frontage and the NW gable end will still need to convey that it was a doorway, but the clever introduction of appropriate materials, some visually permeable, could help to make a more positive contribution to the streetscape and considerably enhance the building's appearance. Such alterations could also help to better appreciate the building's original form and function and so enhance its evidential and communal values too.

The railway heritage of Darlington in general terms is of **considerable communal value** to those interested in railway heritage. Those who value the railway heritage are in effect an international community, but specific note needs to be made of the Friends of The Head of Steam Museum, the A1 Steam Locomotive Trust, The Darlington Railway Preservation Trust, the North Road Railway Charitable Trust, the North Eastern Locomotive Preservation Group and the Model Railway Company, all based in and around the historic heart of the S&DR and whose presence makes the area more than just a heritage site, especially with the work of the A1 Trust building new locomotives.

The wider work of the Friends of the S&DR is also helping to raise the profile of the railway heritage to non-railway enthusiasts and as a result there is a greater appreciation and sense of pride amongst the wider population in the contribution of Darlington to the world wide railway revolution. This wider appreciation has led to significant investment in the railway heritage and the railway triangle around North Road by Darlington Borough Council, the Tees Valley Combined Authority and the Rail Heritage Board. This communal value is also reflected in the Heritage Action Zone status of the S&DR corridor.

The communal value of the area's railway heritage is therefore of considerable significance, but that does not equally apply to the lime depot. While it forms part of the Heritage Action Zone, the fact that it has been largely ignored by many railway enthusiasts in the past and has suffered from vandalism suggests that its value is not appreciated by everyone. Its designation as a listed building was part of a process of realisation that the building had such strong historic associations with the S&DR and this helped to overcome some ambivalence towards what was otherwise an untidy building. Social media would also support a growing sense of interest and pride in this building as seen in postings reflecting concern for its future and the hope that it can be found a new and sustainable use. The building is therefore of **some communal value**.

CONCLUSION

The lime depot on Hopetown Lane dates to *circa* 1840-7 and is the second such depot on the Darlington branch line. It replaced or added to the earlier 1825 coal and lime facilities erected at the end of the line. The waggons travelled through the north-west arched gable end and into the building at first-floor level. Waggons were positioned by lime attendants standing on platforms on either side of the track over the four cells below. The attendants opened the doors in the base of the waggons and the load would fall through the gap in the floor between the waybeams. The lime would then be stored in the four cells ready for collection at street level. A yard area outside allowed carts to position themselves in readiness for loading. The building had ceased to be used as a lime depot by the end of the 19th century and went on to have a number of light industrial uses; it is now vacant.

The building has a number of original architectural features which have survived since its use as a lime depot and these are of the highest significance. They include the roof structure, the original brick walls with stone detailing to the front, rear and the gable ends. Internally original or very early features which are of the highest significance include the dividing walls which create the cells at ground floor level, the lime attendant's platforms and waybeams supported on stone pads, the timber framework to the front elevation and the cast iron columns on the upper floor. The significance of the building is also enhanced by its association with other S&DR related buildings and structures and the wider railway heritage of this part of Darlington.

Very few lime depots of this type survive nationally and only three are currently listed in England. Others may survive but are often labelled as coal depots or railway depots and sit within railway complexes that have gone on to be developed for other uses. They are therefore under-represented in the national and regional records and consequently may not have adequate protection through the planning process.

ENDNOTES

[1] Although passengers were only included in the revised 1823 Act of Parliament which also switched the method of traction from horse to locomotive.

[2] This branch was an alteration of the branch route into Darlington proposed by George Stephenson in 1822, which in turn was an alteration of the branch line proposed by George Overton in 1820. Presumably other considerations such as hostile landownership and a spiralling budget came into play resulting in a new, shorter route by 1825 (Robinson 2018, 23).

[3] This is now called Station Road but prior to the railway, was called Whessoe Lane

[4] Fawcett 2001, 26

[5] Darlington Lib., U418a40, Plan of the Town of Darlington, 1826, surveyed by John Wood

[6] Plan in Darlington Library, origin and absolute date unknown, but found amongst Board of health plans of 1850. The plan must date to between 1827 and early 1830 based on what buildings are present. Ref: U418q E810021764.

[7] TNA RAIL 667/9

[8] TNA RAIL 667/9 9 September 1836

[9] Whishaw 1842, 416 (first published 1840)

[10] TNA RAIL 1037/482 and RAIL 1037/456. Plan of Part of the Town of Darlington together with the Railways and Lands in the Immediate Vicinity 1839 (N.B. both sets of these plans were clearly used long after 1839 and had buildings added to them as they were constructed. Consequently, one shows North Road Station, not built until 1842. No. 9 is 'coal depot and yard'.

[11] TNA RAIL 667/1601a Sale of Deanery Coals at Darlington Depot included Best, Splint, Small Coal, Nuts and Cinders

[12] Grahame 2006, 6

[13] Ibid

[14] S&DR Committee Minutes, 7 Oct 1825, TNA RAIL 667/30

[15] TNA RAIL 1037/454

[16] TNA RAIL 667/1359

[17] TNA RAIL 1037/455

[18] Tomlinson 1915, 51

[19] Tomlinson 1915, 53

[20] Tomlinson 1915, 89

[21] TNA RAIL 667/1449

[22] Tomlinson 1915, 122

[23] The Newcomen Society 1971, 5, 9

[24] Grateful thanks to Brendan Boyle for providing photographs of the Records Book. Actual Lime & Coals Sold at Darlington, from July 1st 1827 to June 30th 1829 (a monthly sales breakdown; TNA RAIL 667/1357. In summary:

- 1827-28 coals: 21,979 tons - 14 cwts - 3 qrs;
- 1828-29 coals: 21,854 - 9 - 3.
- 1827-28 lime: 160 - 13 - 1 (only 3 months' sales, Apr-June 1828);
- 1828-29 lime: 427 - 4 - 2 (12 months).

[25] TNA RAIL 667/31 (thank you to Brendan Boyle for providing this reference)

[26] TNA RAIL 667/9

[27] There are two Dixon surveys dating to 1839 of Darlington in The National Archive. TNA RAIL 1037/456 is the most detailed and shows the trackbed and sidings. TNA RAIL 1037/482 depicts a much wider area and is less detailed. It shows no sidings at the site of the lime depot but does show North Road Station which was not built until 1842.

[28] Thomas Dixon plans 1839 and OS 1st edition 1855

[29] Holmes 1974, 45. The Livingstone Buildings were built over part of the depot. However, part of the depot appears to have remained in use for coal until the 1930s but not by any railway company

[30] The lime cells at Hopetown are 3.1m wide each, those at the first depot measuring over 5m (18 feet) wide according to Whishaw and Tomlinson

[31] Local Studies Library, Darlington: Ref U418a40

[32] Gordon Nowlin, Moira Coley, Mark Evans pers comm via Facebook (Darlington As It Looked 1880-1980)

[33] List entry no. 1391819

[34] TNA RAIL 667/12

[35] 1847 White's Trade directory. His office was at 45 High Row.

[36] GD & JS Lightfoot, agents' had been mentioned in 1847 White's Trade Directory, but listed under coal merchants

[37] Fawcett 2001, 18

[38] Post Office Directory of Northumberland and Durham. Printed and published by Kelly & Co., 1858. London.

[39] Ord & Maddison 1867. In 1863, the S&DR had been absorbed into the NER.

[40] OS 2nd ed 1897

[41] see http://www.disused-stations.org.uk/m/middleton_in_teesdale

[42] The earliest Welsh slate mentioned in the North East was imported by James Archbold, slater in Gallowgate, Newcastle in 1815 along with Westmorland, Lancashire and Scotch slates (Tyne Mercury; Northumberland and Durham and Cumberland Gazette 29/8/1815). Closer to the S&DR an advert appeared in 1823 for Welch [sic] slates for sale at Robert Botcherby & Co's timber yards at Stockton and Darlington or Thomas Overend, slater, Staindrop (Durham County Advertiser 9/8/1823). Those sold by Archbold in 1815 were 'imported', so presumably by sea and so the Overend slates may have also been imported by sea to Stockton.

[43] Thomas Sowerby 1847 and the tithe map 1847

[44] Britain From Above. EAW027393 ENGLAND (1949). Albert Hill Railway Junction and environs, Darlington, from the east, 1949.

[45] OS 6-inch LV NW revised 1950 when the present day street pattern appears compared to OS LV NW revised 1938 when the sidings still extended down the original route of Station Road

[46] TNA RAIL 667/9 4.1.1836

[47] Bouesfield 1881, 48-9

[48] Nicholson 1949, 48-9

[49] TNA RAIL 667/9

[50] Archaeo-Environment 2013, 16

[51] Historic England declined to list this building in 2016. One of the reasons given was that it appeared to be part of Pease's garden not the coal and lime depot. But Dixon's plan and the OS 1st edition show it to be inside the coal depot. "The association of the small building with the Stockton and Darlington branch line at this date is unconfirmed, and for it to be confirmed as a purpose-built early railway building, we would require firm evidence of this and a clear view of its function. It seems most likely that it originated as a stone garden structure associated with the garden and is suitably embellished with original detailing including arched openings with hood moulds." HE Ref: 1433395

[52] TNA RAIL 667/13 5 November 1841

[53] Boyle 2020, 13-14

[54] Darsley 2006, 237

[55] Tomlinson 1915, 81

[56] Hartley, R. F 2019, 38-9

[57] Tomlinson 1914, 117

[58] Fawcett 2001, 26

[59] Riding, J undated

[60] Biddle, G 2011, 20

[61] SMR 4860 (thank you to Ian Ayris and Rachel Grahame for drawing attention to these structures. LB List Entry No. 1248565. Listed only as a coal depot.

[62] Archaeo-Environment 2018 and List entry no:1295785
[63] OS VI 1st ed surveyed 1860 and 2nd ed revised 1897 OS VI NE
[64] Seen on Google Earth image date 7.1.2018
[65] Biddle, G 2011, 15-24, although coal drops feature in the index which in some instances includes coal depots (Binney, M and Pearce, D 1979).
[66] List no: 1020889
[67] List no: 1020888
[68] List entry no: 1430159
[69] Definitions of Significance are:

Considerable Significance. Aspects of the site considered as seminal to the historical, architectural, or aesthetic character or development of the site, the unsympathetic or ill-informed alteration or loss of which would destroy or significantly compromise the integrity of place. This category may be determined by the date, rarity, completeness, duration, setting or the representative quality of the element discussed.

Some Significance. Aspects that help to define the historical, architectural, or aesthetic character of the site, without which the character and understanding of place would be diminished but not destroyed.

Limited Significance. Aspects which may contribute to, or complement, the historical, architectural, ecological or aesthetic character of the site but are not intrinsic to it, and in some circumstances may be intrusive, and the removal or alteration of which may have a degree of impact on the understanding and interpretation of the place.

Marginal Significance. Those aspects which have only a minor connection with the historic, architectural and aesthetic character of the site and could be considered intrusive, the removal or alteration of which could have a limited or even beneficial effect on the understanding of place.

The values used to describe the type of significance in this report have been set out by English Heritage (now Historic England) in their 2008 publication Conservation Principles:

Historical Value. This derives from ways in which people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative, for example it might be an association with an architect or illustrate through visible connections with the past how communities used a place

Evidential Value. The potential of a place to yield evidence about past human activity.

Aesthetic Value. This derives from ways in which people draw sensory and intellectual stimulation from a place. It can relate to the design of a place, or the patina of age which adds to local distinctiveness and character.

Communal Value. This derives from the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.

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APPENDIX 1 PLANS AND ELEVATIONS

Cross section through the building NW-SE

First floor plan (figure 25 in report)

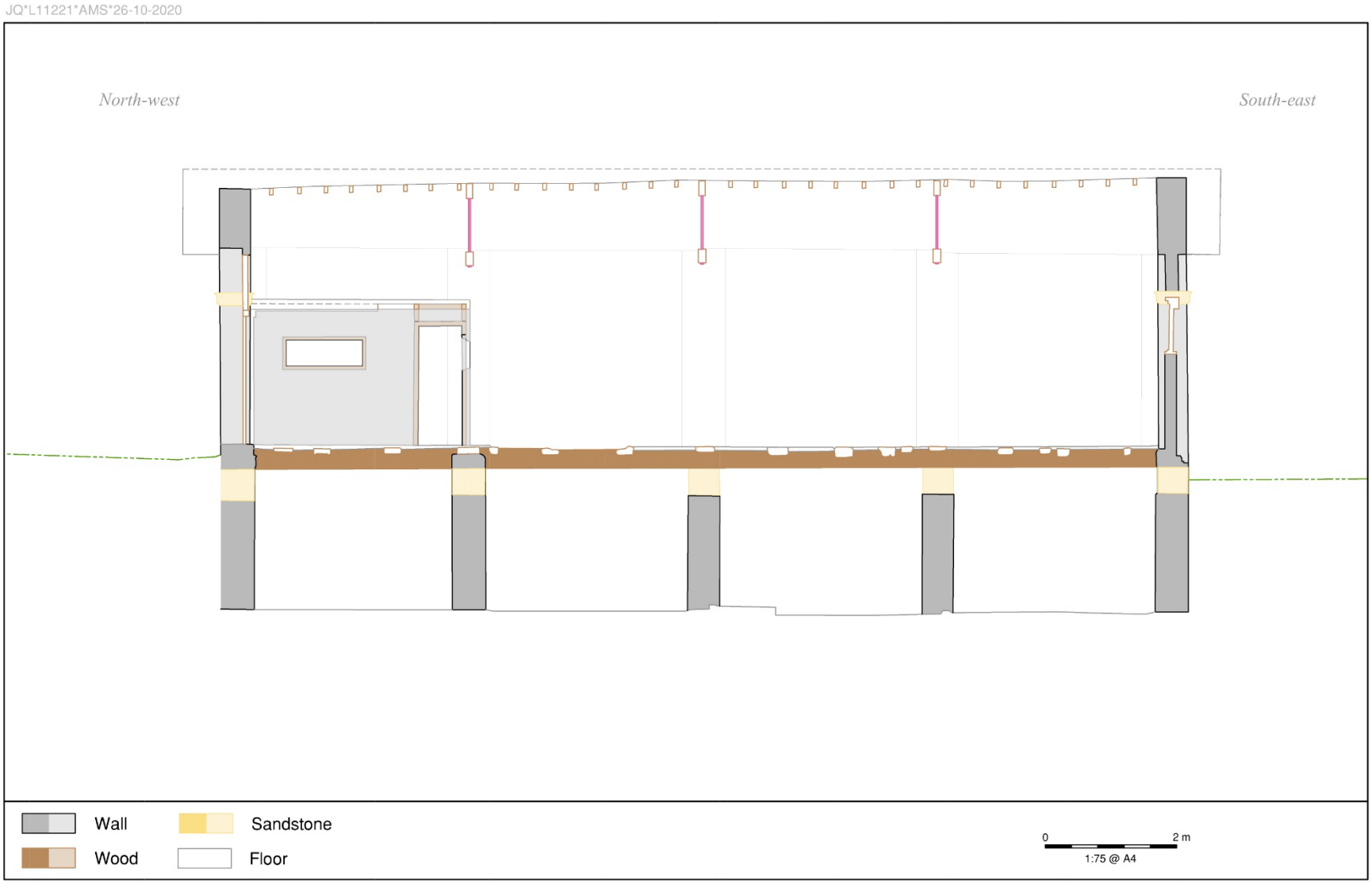
Typical cross section (figure 33 in report)

Ground floor plan (figure 37 in report)

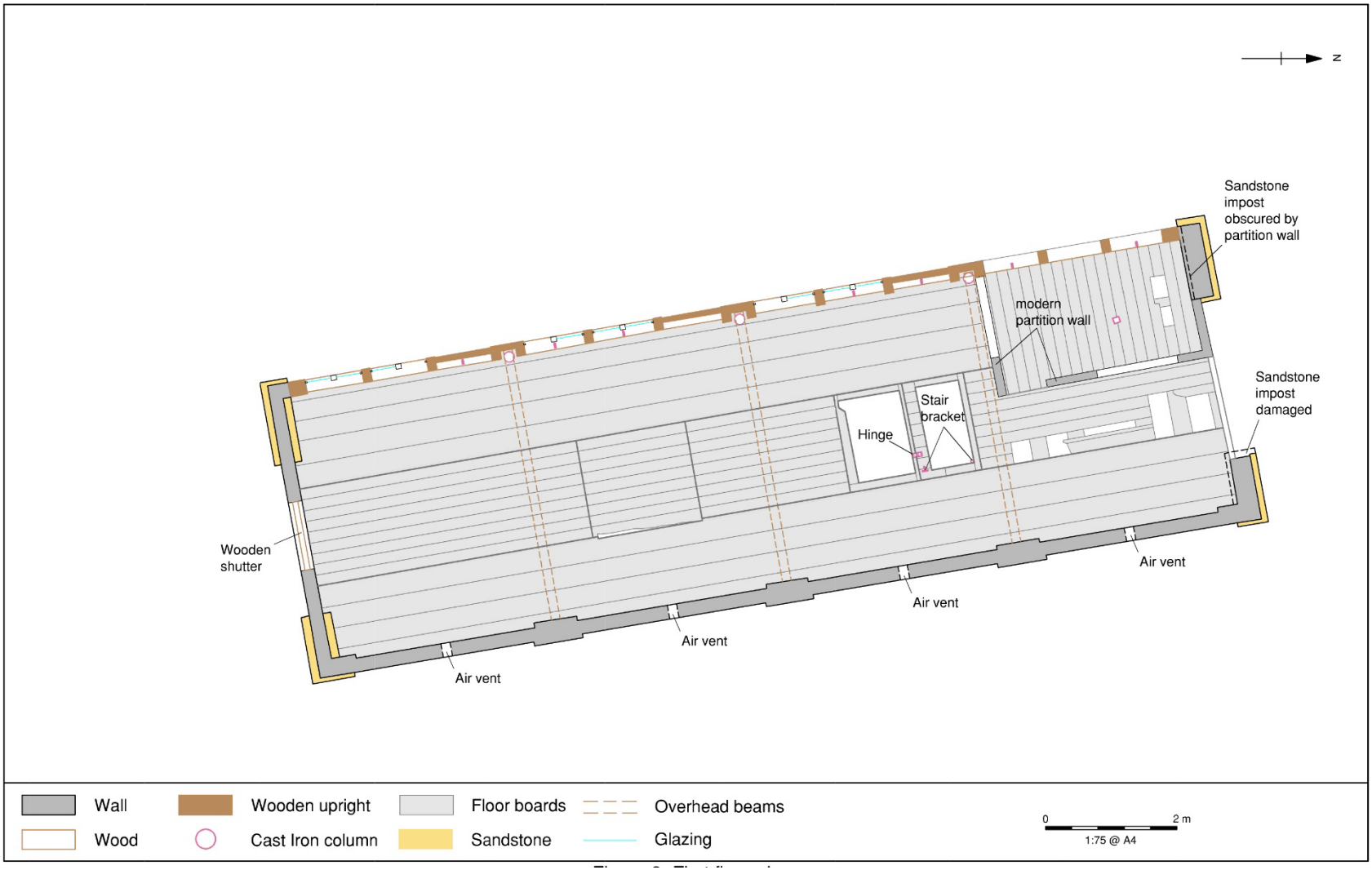
Front (west facing) elevation

Rear (east facing) elevation

Gable ends (south-east and north-west)

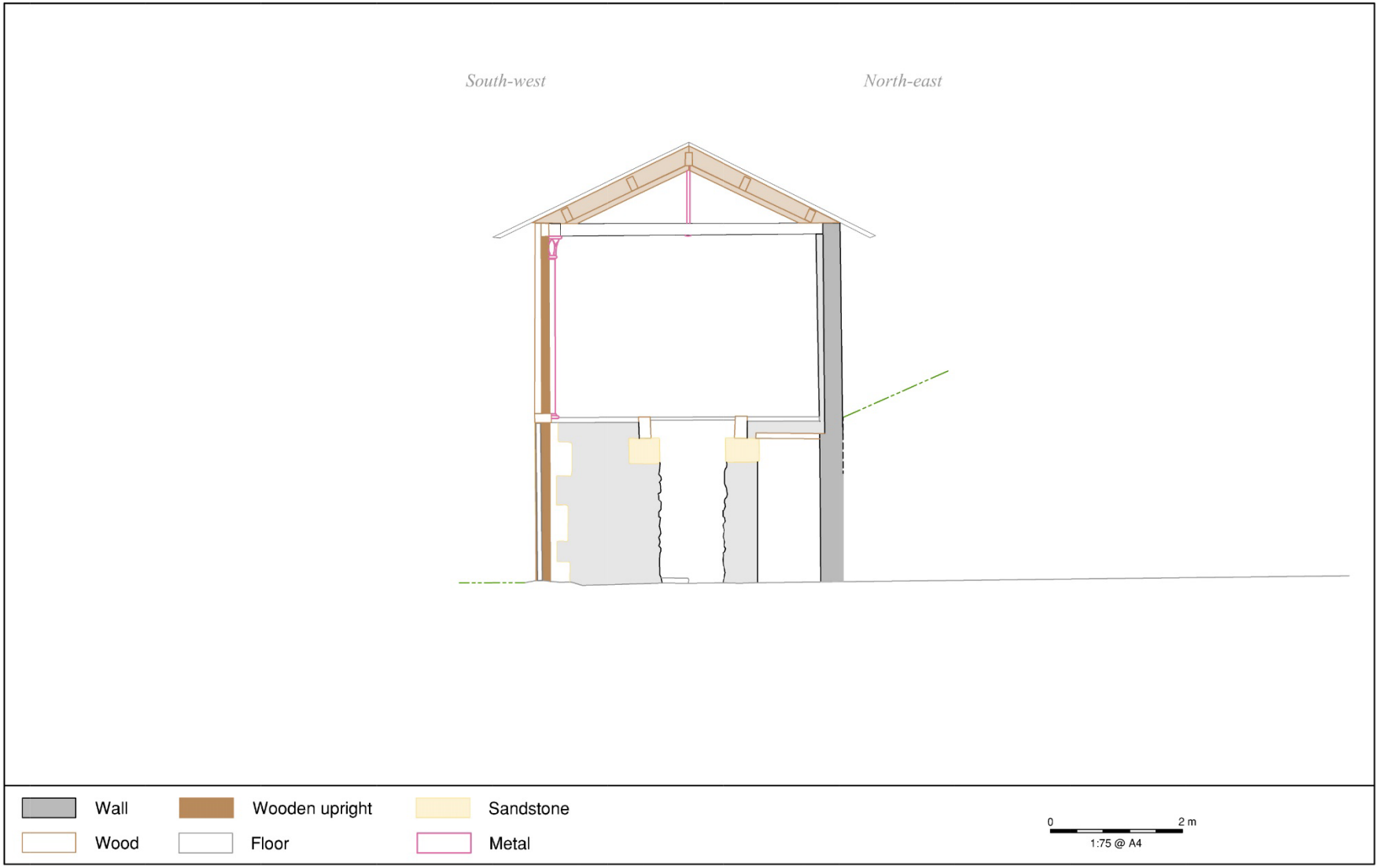


App 1. Cross section NW-SE

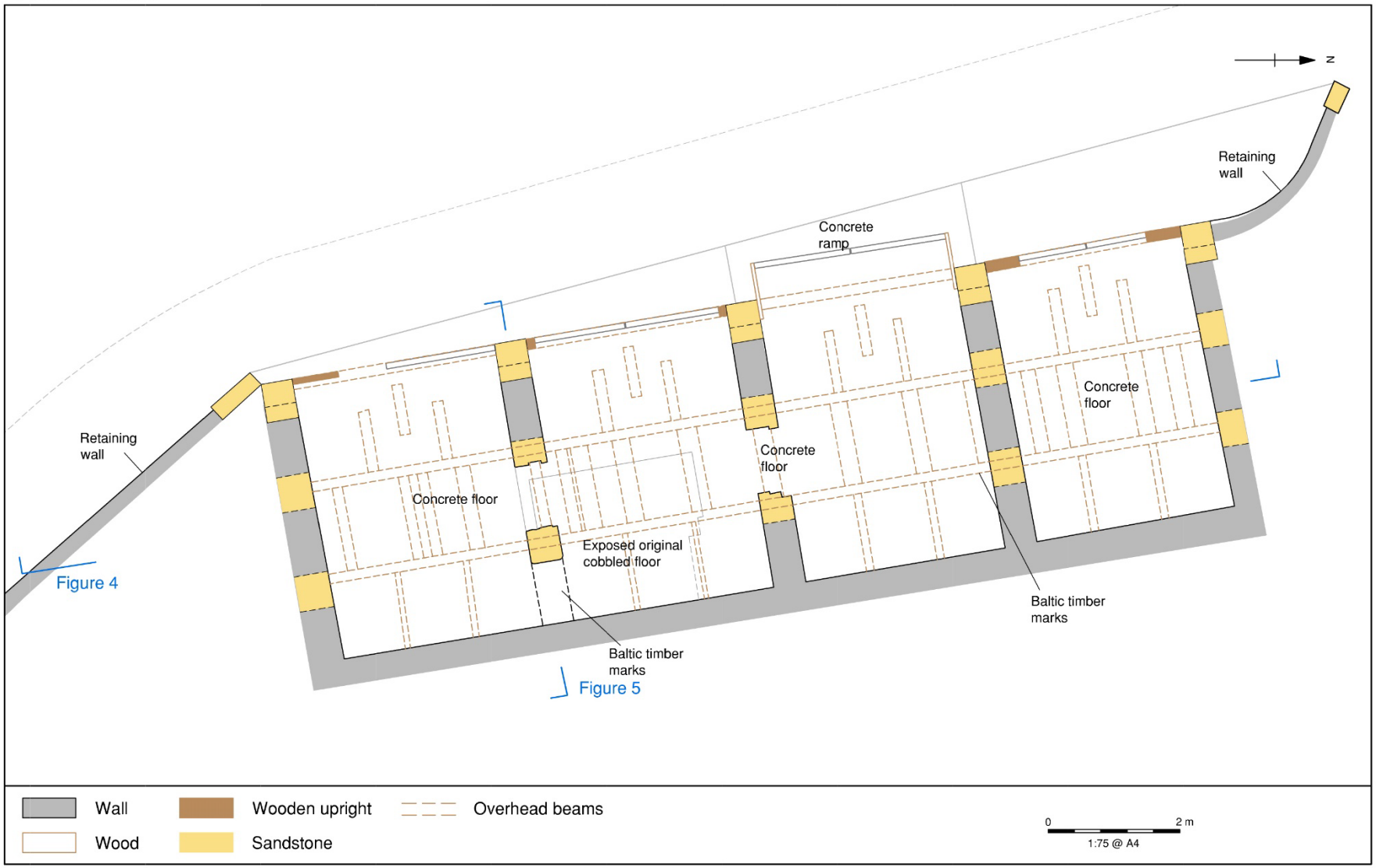


App 2. First floor plan

JQ*L11221*AMS*040820



App 3. Typical Cross section



App 4. Ground floor plan

JQ*L11221*AMS*26-10-2020

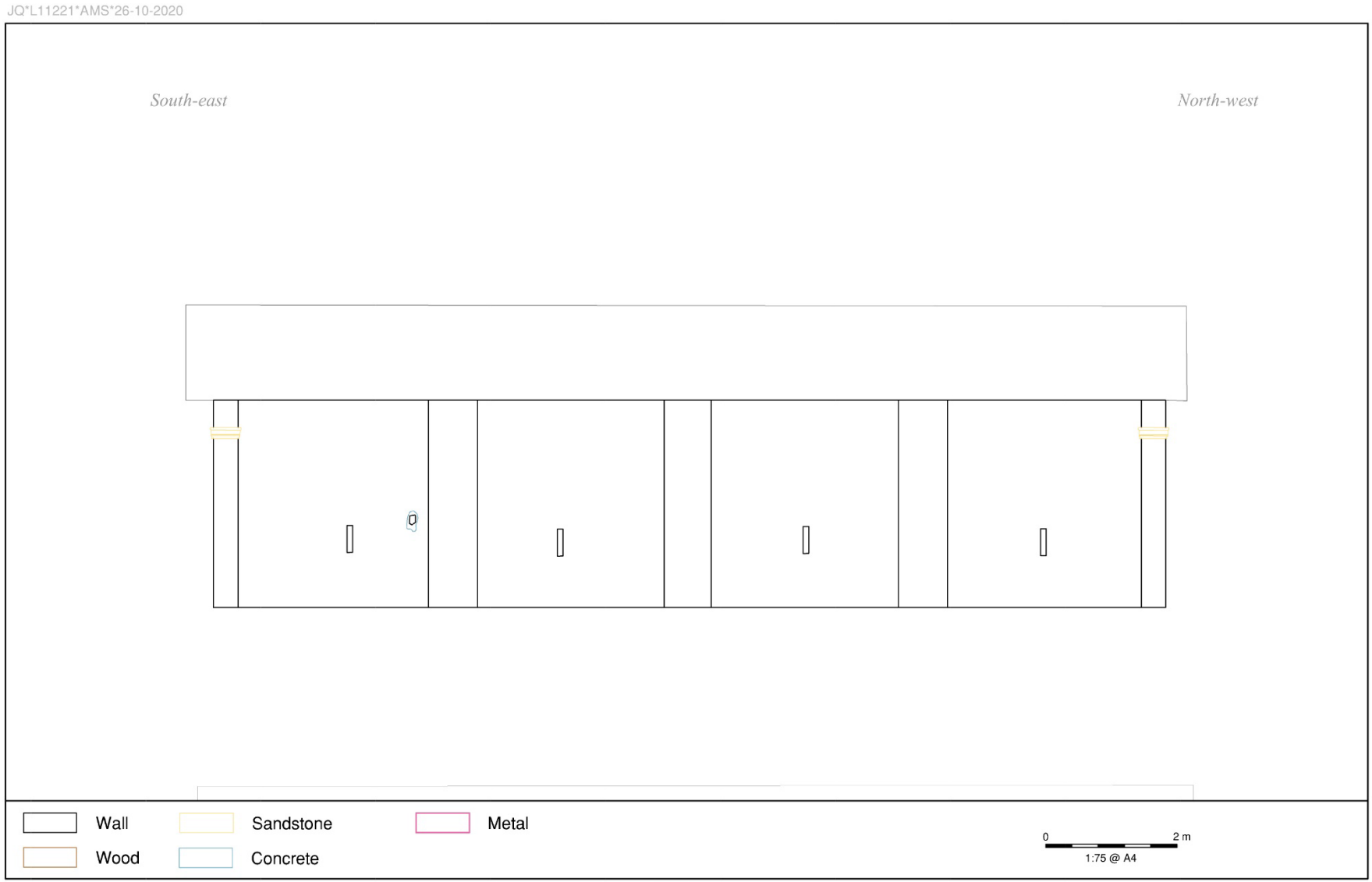
North-west

South-east

0 2 m

1:75 @ A4

App 5. Front (west facing) elevation



App 6. Rear (east facing) elevation

JQ*L11221*AMS*26-10-2020

App 7. Gable ends (south-east and north-west)

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