



Design and Access Statement

**A167 Low Copelaw Access Works,
Newton Aycliffe**



CPAL Project Team
Durham County Council
February 2023

CONTENTS

Page Number

1	Introduction	4
1.1	Application	4
1.2	Applicant	4
1.3	Proposal Summary	4
1.4	Principal of Development	4
1.5	Scope of this Document	4
2	The Application Site	5
2.1	Site Location	5
2.2	Site Boundary & Description	6
2.3	Site Size	7
2.4	Site History	7
2.5	Site Context	7-8
3	Site Characteristics and Usage	9
3.1	Site Ownership	9
3.2	Site Features and Usage	10
3.3	Site Images	11-12
3.4	Site Access Constraints & Opportunities	13
4	Planning Policy and History	14
4.1	Planning Policy	14
4.2	Planning History	15-16
5	Design and Access	17
5.1	Design Scope	17
5.2	Design Standard	18
5.3	Design Layout	18
5.4	Design Safety Audit	18-19
6	Transport	20
6.1	Transport Assessment	20-21
6.2	Walking & Cycling	21
6.3	Public Transport	22

CONTENTS

Page Number

7	Drainage	23
7.1	Flood Risk	23
7.2	Water Management and Surface Water Drainage	23-24
8	Landscape, Ecology and Geology	25
8.1	Existing Natural Features	25
8.2	Arboricultural Impact	26
8.3	Landscape Overview	27
8.4	Landscape Strategy	27-29
8.5	Ecology Appraisal	29-30
8.6	Ground Investigation	30
8.6	Ground Conditions	31
9	Historic Environment	32
9.1	Heritage	32
9.2	Conservation	32
9.3	Archaeology	32
10	Construction Management	33
10.1	Construction Management Plan	33
10.2	Air Quality and Noise	33

1.0 Introduction

1.1 Application

The application is for road works to provide suitable access that will enable future development of the Low Copelaw site to the east of the A167, making land available for housing. The works proposed are located in the public highway and in adjacent land to the east.

1.2 Applicant

The design and access statement has been prepared by the Durham County Council Corporate Property & Land Project team (part of Regeneration, Economy and Growth) who are the applicant for these works.

1.3 Proposal Summary

The application comprises of works within public highway which include realignment and widening of the A167/B6443 Central Avenue signalised junction and works on adjacent land comprising the construction of a new 200m long highway standard access road. The proposal summary is as follows;

- widening of the existing A167 and B6443 highways
- construction of new traffic lanes, islands and footways
- new traffic signal control infrastructure and LED heads
- new 200m access road to link with the existing signal junction
- a sustainable surface water drainage attenuation system
- a new LED system of street lighting columns
- earthworks/tree removals/replacement landscape features
- removal and topsoiling of the existing unclassified road “Cedar Drive”

1.4 Principal of Development

The application site comprises adopted highway and land in private ownership (leased to DCC) that is allocated for housing (within the adopted County Durham Plan). The application seeks to secure suitable vehicular access to unlock the site and ensure it can be developed in the future.

1.5 Scope of this Document

The Design & Access statement will provide details of the proposals and demonstrate that the principles applied during the production of the designs that shape road and junction works encompass ‘good design’ and that they accord with the ‘National Planning Policy Framework’, the Council’s adopted ‘County Durham Plan 2020’ and local development policies.

2.0 The Application Site and Surrounding Context

2.1 Site Location

The site is located on the eastern boundary of the town of Newton Aycliffe, at the junction of the B6443 Central Avenue with the A167 (see figure 2A).

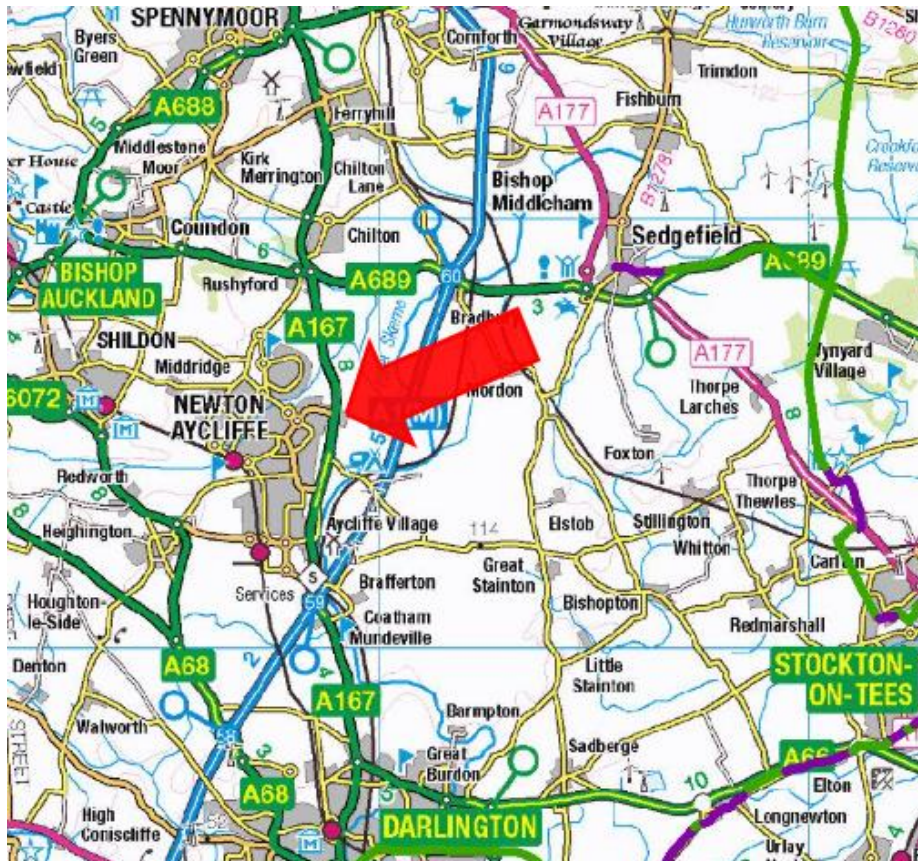


Figure 2A
(Site Location)

Ordnance
Survey
National
Grid
Reference
NZ 28876,
25396

Newton Aycliffe is situated approximately 7km south-east of Bishop Auckland and a similar distance north of Darlington town centre. The site is ideally situated to directly access existing road transport links via the A167 to the A1(M) motorway interchanges, with junction 59 only 1.5km to the south and junction 60 approximately 4km to the north.

The existing settlement of Newton Aycliffe lies to the west of the A167 and is regarded as a key town with its town centre categorised as a 'Large Town Centre' within the County Durham Plan. The town centre is located approximately 750m to the west of the site and offers a number of retail and leisure services including a large supermarket, national and local retailers, cafés, restaurants, banks and a large leisure centre.

Newton Aycliffe train station is located to the southwest of the town approximately 2.7km from the site and provides rail transport on the Northern Line which connects with the East Coast Main Line offering direct and fast rail links to London, York and Edinburgh with gateways to the rest of the UK.

2.2 Site Boundary and Description

The application site boundary (Figure 2B) occupies both Council maintained highway and land in the ownership of The Department for Education which is currently under a long-term lease to Durham County Council.

The portion of the site in highway includes the A167/B6443 Central Avenue junction at Newton Aycliffe which is primarily carriageway, footways and verge. The portion of land in leasehold to the east includes neutral grassland, dense scrub, mixed plantation woodland and a private tarmac access road (Cedar Drive) that provides access to the site and the businesses located there.

Supporting Document: Drawing 1383228_DCC_HE_PA_02 - Red Line Boundary Plan

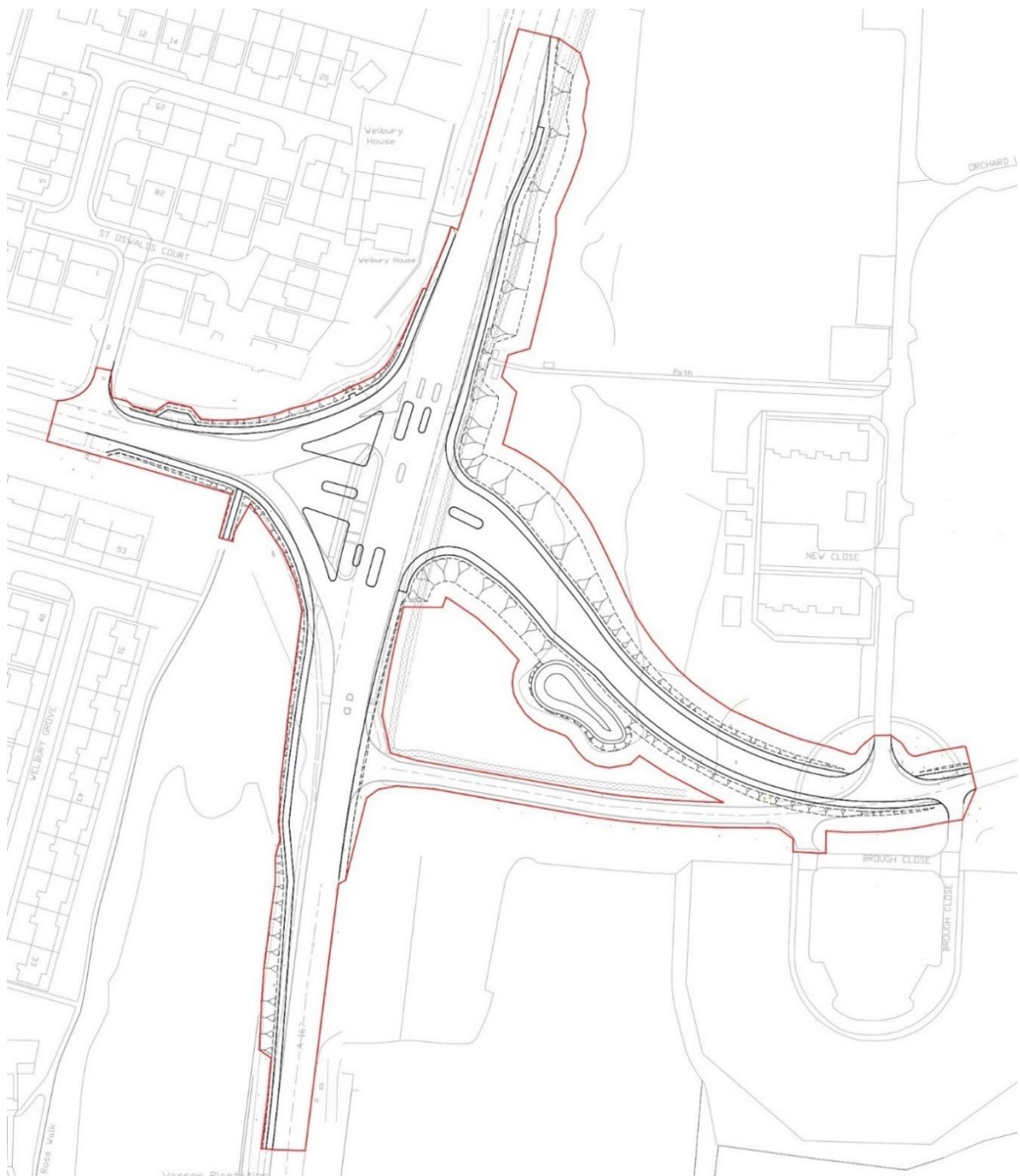


Figure 2B - Application Boundary & Proposed Works

2.3 Site Size

The application site boundary contains the areas required to undertake widening, new traffic lanes and upgrade works to the existing signalised junction and to also construct a new highway standard link road to connect the site to the improved A167 junction. To enable construction of these works and removal of the old road that would become redundant, the area of the red line boundary shown in Figure 2B is 1.98 Hectares.

2.4 Site History

The application site contains land which was in use by Aycliffe Young People's Centre, which has been managed by Durham County Council since the Authority took control of the premises in 1973. The grounds were established in the early 1940's and started as 'Aycliffe School for Boys' which was the first establishment in the country to be designated as a 'classifying school' for young people who had been committed to confinement by the courts. The Centre was rebuilt in 2011 and many of the redundant buildings were demolished, paving the way for the potential to provide improved access to unlock the site.

2.5 Site Context

The wider Low Copelaw site (approx. 91.46 Ha) is a strategic housing site for County Durham and is central to the Council's housing delivery plans, with the potential to unlock land that could accommodate approximately 1400 homes, alongside a new local centre and primary school. The development site boundary is shown in Figure 2C. The site will further diversify the housing mix within Newton Aycliffe, supporting the ambition for an increase in quantity and quality of housing within the County and supporting economic growth near to the County's largest employment centre at Aycliffe Business Park. As set out in the adopted County Durham Plan (2020), Housing Strategy (2019) and Inclusive Economic Strategy (2022) the site will support housing needs, help meet demand and through the delivery of the Low Copelaw Masterplan in collaboration with The Church Commissioners for England, the Department for Education and Homes England, the Council will bring forward new housing growth. As a marginal housing site, enabling infrastructure and ensuring high standard site access to the north of the site is paramount to meeting long term housing ambitions for Newton Aycliffe.

Grant funding has been secured to support the delivery of enabling infrastructure and to address some of the viability gaps that have been impeding the delivery of housing at this site. Proposed junction improvements at the Central Avenue junction on the A167 will enable access to the northern part of the wider site whilst enhancing existing routes of access for the existing occupants at the Secure Centre and adjacent private owner the North-East Autism Society.

2.5 Site Context (continued)

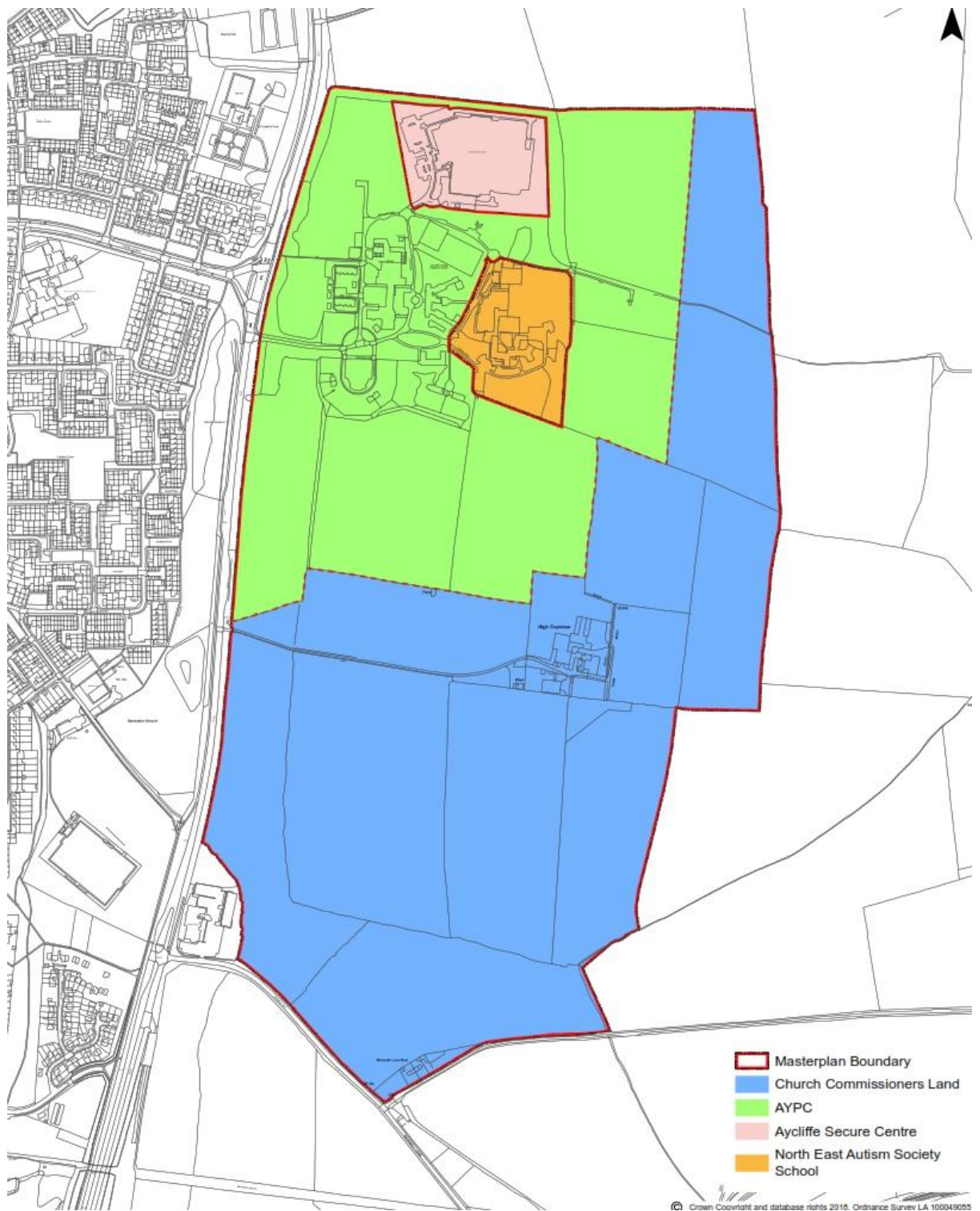


Figure 2C – Low Copelaw Site Masterplan Boundary

3.0 Site Characteristics and Usage

3.1 Site Ownership

The land within the application boundary comprises of DCC owned adopted highway to the west (seen as red/green in Figure 3A) and land tenured in a long-term lease to Durham County Council to the east (crosshatched, Figure 3A).

Land to the east is in the ownership of the Department for Education, leased for 999 years to DCC and the particulars of the lease agreement allow for development. The Church Commissioners For England (CCFE) have mines and mineral rights below the subsoils of leasehold lane. The proportion of land within the application is contained within the following registered titles:

- (i) DU280597 : Leasehold, Title Absolute : Durham County Council
- (ii) DU279903 : Freehold, Title Absolute : Department for Education
- (iii) DU357378 : Freehold (Minerals), Title Absolute : Church (CCFE)

Figure 3A below shows the land terrier overview of ownership/use for the wider area surrounding the application site.

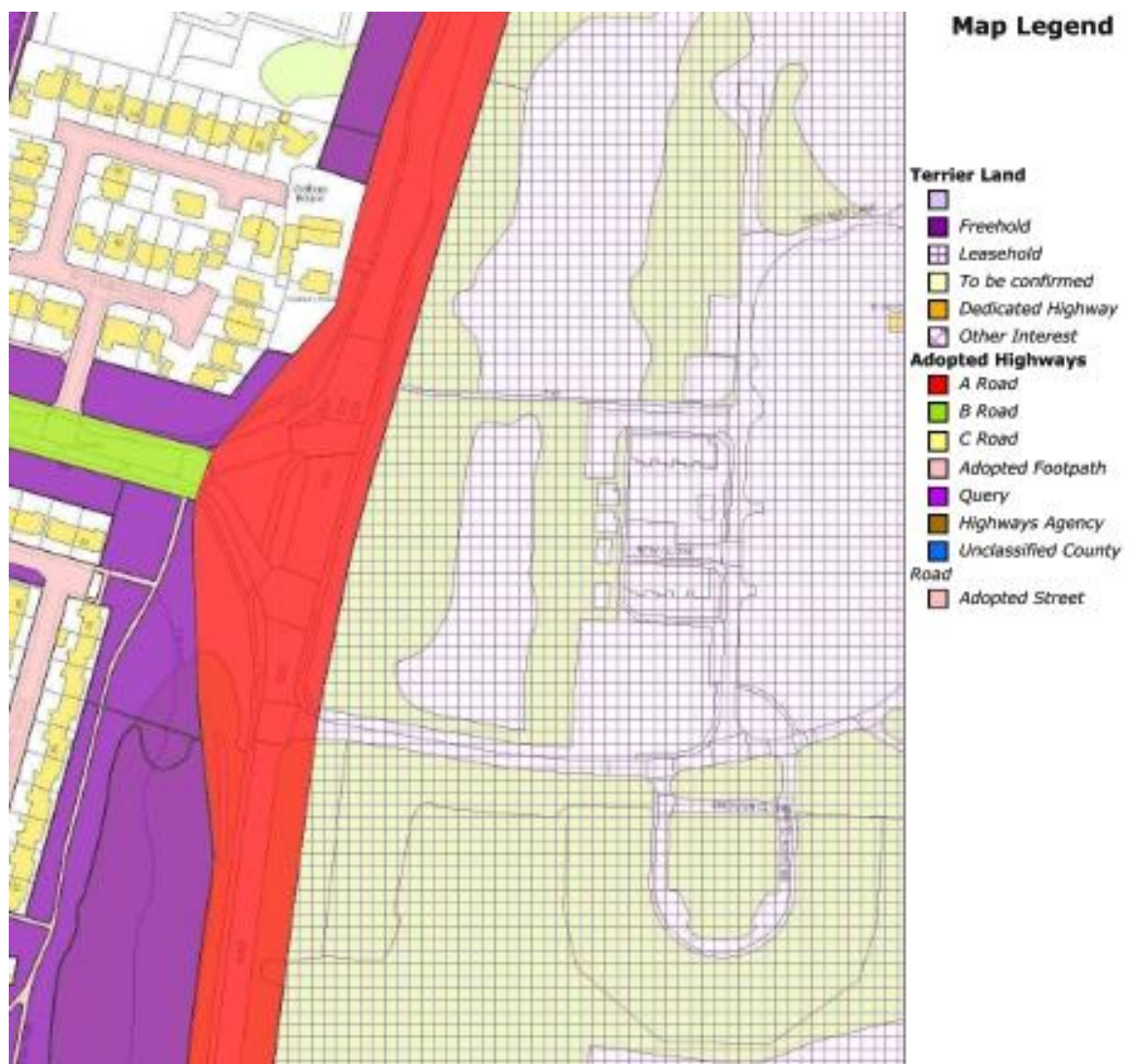


Figure 3A – Land Terrier Plan

3.2 Site Features and Usage

With reference to figure 3B, the application site comprises;

- 1 B6443 adopted highway (DCC maintained access to Newton Aycliffe)
- 2 A167 adopted highway (DCC maintained primary route Darlington/Durham)
- 3 A167/B6443 traffic signal junction (DCC maintained)
- 4 woodland plantation mature mixed species tree belt (DCC maintained)
- 5 open space grassed areas (currently not in use/land owner maintained)
- 6 Cedar Drive (private road used to access the site by residents and employees of businesses located on site to the north and east)
- 7 Orchard Lane/Cedar Drive (leading to Young Peoples Centre and Autism Centre – landowner maintained)



Figure 3B – Site Features

3.3 **Site Images** (cross reference images with figure 3B)



Image 3B-1 B6443 Central Avenue (taken October 2022)



Image 3B-2 Principal Trunk Road A167 (taken October 2022)



Image 3B-3 A167 / B6443 Traffic Signal Junction (taken October 2022)

3.3 Site Images (continued)



Image 3B-4 Woodland adjacent A167 (Dec 22)



Image 3B-5 Field / former open space (Dec 22)



Image 3B-6 Cedar Drive (private road) taken October 2022



Image 3E-7 Orchard Lane (private road) taken October 2022

3.4 Site Access - Constraints & Opportunities

The site currently takes vehicle and pedestrian access from a narrow private road named Cedar Drive (image 3B-8) that connects with the A167 via a priority junction with right turn pocket to the west (image 3B-9) and with a small network of private roads that serve the existing business on the site.



Image 3B-8



Image 3B-9

The current site access is unsuitable for increased levels of traffic, therefore stemming any future development of the wider allocated site. Funding has been made available from Homes England's Housing Infrastructure Fund (HIF) to unlock the development potential of the Low Copelaw site. The designed access road and A167 junction upgrade seen in Figure 2B provide the area with a grant funded opportunity to create a suitable highway adoption standard junction improvement that will:

- (i) give suitable access to the site opening up new development opportunities that will bring work to the area for many years and much needed residential housing growth for Newton Aycliffe.
- (ii) provide an adoption standard public access to the development that will be suitable to carry additional traffic associated with development and therefore future proof such access as demonstrated in the accompanying Transport Assessment.
- (iii) provide an upgrade to the A167 signalised junction, enabling new current infrastructure and technology to be installed including energy efficient LED heads and new pedestrian indicators that will improve crossing time for pedestrians and will serve to ensure the junction will operate more efficiently now and in the future as traffic and people numbers increase.
- (iv) allow the existing narrow poor quality unlit private road to be removed and the priority junction can be permanently closed off as it will no longer be required.

4.0 Planning Policy & History

4.1 Planning Policy

This proposal will be assessed against the relevant local planning policies from the adopted County Durham Plan, as well as the latest revision of the National Planning Policy Framework (NPPF). The NPPF published in March 2012 and most recently revised 20th July 2021, sets out the Government's planning policies for England and how these are expected to be applied. The NPPF advocates a presumption in favour of sustainable development and seeks to significantly boost the supply of new housing.

“Good” and “Sustainable” design principles were key to the evolution of the junction proposals during the course of the scheme development. Paragraph 58 of the NPPF emphasises that such principles should stand centrally when designing a scheme and that the supporting policies and decisions should aim to ensure the scheme proposals will;

- Function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- Establish a strong sense of place, using streetscape to create attractive and comfortable places to live, work and visit;
- Optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public spaces as part of developments) and support local facilities and transport networks;
- Respond to local character and history, and reflect the identity of local surroundings and materials while not preventing or discouraging appropriate innovation;
- Create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion;
- Be visually attractive as a result of good architecture and appropriate landscaping.

County Durham's 'Local Plan', the County Durham Plan that was adopted in 2020, sets out a vision for housing, employment and the environment until 2035, as well as a range of planning policies that govern new development in the County. The Plan identifies Newton Aycliffe as having one of the County's larger town centres, with a good range of local services and facilities. CDP Policy 6 relates to the development of unallocated sites which in this case falls within an existing built-up area, and well related to the main settlement of Aycliffe Village. This statement outlines how the application proposals aim to accord with all relevant CDP development plan objectives and core principles, whilst the accompanying Planning Statement provides further detail relating to how the proposals conform with the local plan policies.

Supporting Document: Central Avenue Junction, Planning Statement, Feb 2023

4.2 Planning History

The Copelaw site was identified as an urban extension for Newton Aycliffe within the Council's vision for housing set out in the County Durham Plan.

The current site housing allocation and the description of the enabling works required for the junction are detailed within Policy 4 of the current Plan Period (2020-2035) and shown as site H30 on the accompanying Policy Plan Map (figure 4.2A).

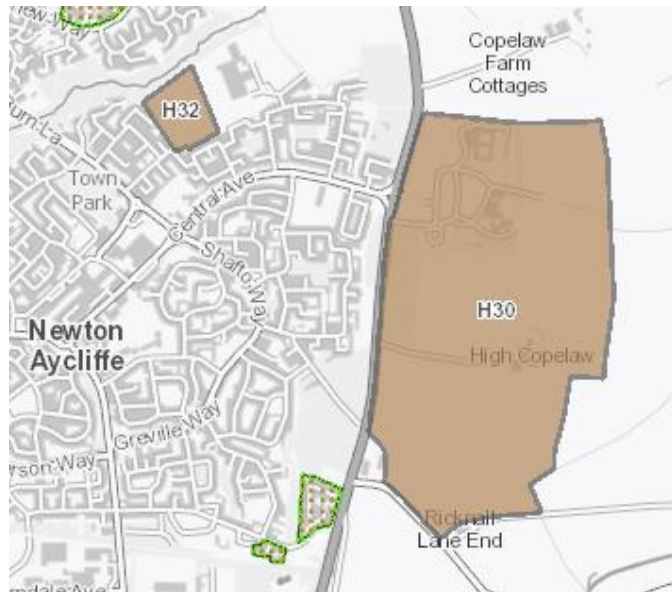


Figure 4.2A Policy Map (County Durham Plan)

The chronology of the site featuring as a strategic allocation within the evolution of the Plan's versions to the current Plan (adopted 2020) has been as follows:

County Durham Plan (1st Version)

- 2010 - Issues Paper
- 2011 - Issues & Options
- 2012 - Preferred Options (Copelaw was first identified as a strategic housing allocation at this stage)
- 2013 - Pre-submission draft
- 2014 - Submission and Examination of the Plan
- 2015 - Inspector's report, Judicial review of the report and withdrawal of the plan.

County Durham Plan (2nd Version)

- 2016 - Issues & Options
- 2018 - Preferred Options (Copelaw was again identified as housing allocation under Policy 4).
- 2019 - Pre-submission draft
- 2019 - Submission and Examination of the Plan
- 2019 - Inspector's report (17th September)
- 2020 - Adoption of the Plan by Council

4.2 Planning History (continued)

The site has been assessed as suitable for development within the current Strategic Housing Land Availability Assessment (SHLAA) 2019 (site ref 7/NA/313), which highlighted the extent of highway improvements that are necessary to enable suitable access to the site and which could bring forward the plans for development.

More recently Durham County Council have progressed the site as part of the wider growth plans for Newton Aycliffe, with the Housing Infrastructure Fund (HIF) seen as a way to unlock the site and release the land for housing. £7.135m of HIF funding was secured in 2018 from Homes England to deliver enabling infrastructure by the end of 2023/24 – this application being the next stage of this commitment.

5.0 Design

5.1 Design Scope

The SHLAA assessment (Appendix 1) had already identified that highway improvements were required on the local network to bring the site forward for development. The housing yield of the Copelaw site was estimated at 1500 when initial modelling of the current junction was undertaken by the Council's transport and infrastructure team in 2018. Based on the indicative yield figures (as no masterplan existed), the levels of anticipated future traffic movements were calculated and loaded on to the County road network models to understand the impact the development would have on the local road network. The modelling and assessments identified a series of measures that would be necessary at three locations:

- 1 A689/A167 Rushyford Roundabout (3.5 km north of Central Avenue)
- 2 Ricknall Lane (1 km south of Central Avenue)
- 3 Central Avenue (improvements contained within this application)

Both 1 and 2 encompass measures solely within the current highway boundaries and therefore the works would be categorised as highway improvements to be brought forward by the Council's Transport and Infrastructure team under powers governed by the Highways Act 1980. Subject to funding and resources, works to Rushyford Roundabout and Ricknall Lane would either be carried out concurrently with the works at Central Avenue, or subject to a conditioned completion as part of the site development planning application to come forward later this year.

The Central Avenue proposal (3) included both highway improvements and new road works that were to extend beyond the highway to provide suitable access into the site and therefore were to be governed by current planning legislation. The modelling assessment of the A167/B6443 junction indicated a vehicle capacity issue caused by the impact of the additional volumes of traffic. This assessment shaped the scope of the proposed design, which was to be commissioned with the Council's Highway Design Team.

The design brief was issued in 2018 to produce an improved junction design that would include additional vehicle lanes on the A167 and the B6443 to separate traffic movement (left turn/ahead/right turn) and to bring the junction to a standard suitable for the predicted traffic levels. The brief would also include a new highway standard access road link between the junction and the existing internal road network, that would give suitable access to the site for future development. The new road link would serve to unlock the development potential of the site and provide a high standard of access to the current site occupants and future development occupants.

5.2 Design Standard

Owing to the size of the site and the predicted increase in traffic flows that the new access road and junction could serve in the future, the new road and the junction upgrade were designed to the highest standard in accordance with the specifications set out in the Department For Transport's Design Manual for Roads and Bridges. The designs shown have been subject to strict quality assurance procedures, checks and further intensive scrutiny under a safety audit process to ensure the design standard is suitable for adoption and integration into the Councils adopted highway network, so that the newly constructed areas can be maintained as public highway following completion.

The designs were completed in 2020 prior to the adoption of the County Durham Plan (paragraph 4.2). Since the original commission, the housing allocation was amended for the Plan and reduced to 1200 units as the development proposal will now include a primary school located on the site. The associated reduction in development traffic generation did not affect the design standards, but for reassurance, the submitted planning application transport assessment (paragraph 6.1) have tested the proposals using the most up to date standards and traffic flow data.

5.3 Design Layout

The design represents a coherent junction and road layout to tie in with the current public highway network that will serve both current occupants of the site and a future residential development and has been designed giving due consideration to the constraints of the site. The impact of the design on the surrounding environment is discussed in Section 8. Figure 5A shows the designed layout and includes the proposed road marking layout to demonstrate the separation of traffic movements that will contribute to a more efficient junction operation.

5.4 Design Road Safety Audit

The design process has included a 'Stage 2 Road Safety Audit' where qualified auditors have reviewed the detailed design layouts checking the road safety implications of the proposal. Auditors made a series of recommendations which included modifications and improvements to the proposed designs. All of the recommendations put forward by the safety auditors have been incorporated in the current layouts and the Stage 2 Audit was concluded and signed off by DCC's Head of Transport Services.

Supporting Document: Central Avenue Stage 2 Safety Audit



Figure 5A - Highway and Road Markings Design Layout

Support Drawings: 1383228_DCC_HE_12_01 & 02 - Traffic Signs & Road Markings rev P03

6.0 Transport

6.1 Transport Assessment

In line with pre-planning good practise, a Transport Assessment scoping note was prepared and submitted to the Local Authority and National Highways with regard to the assessment criteria for future traffic generation associated with the Low Copelaw development that included the wider network impact of the development. Following discussions, the scope of the assessment was agreed with both parties. When it was decided recently that the access works at Central Avenue (presented in this statement) were to be brought forward under a separate planning application, it was agreed with DCC to review the junction impact as a stand-alone assessment, preceding the main assessment which will be completed as part of the subsequent planning application for the Low Copelaw masterplan.

The transport assessment for the Low Copelaw masterplan, will therefore be prepared to reflect the scale and impact of the future housing development, which will include distribution on to the wider network and will contain assessments that will incorporate measures identified at the A167/A689 junction (Rushyford Roundabout) and a development access to the south on to Ricknall Lane. The scope for this applications transport assessment is therefore only concerned with the infrastructure shown in Figure 5A which will give access to the site and the assessment will demonstrate its suitability as access for current occupants, access for a future housing development and also ensure that the junction improvement has capacity to carry additional traffic associated with the emerging development proposal (para 2.4).

Once the new road and junction improvements at Central Avenue are operational, the development plots could be constructed starting from this northern access. When the junction was modelled in 2019 to inform on capacity requirements, there was an assumption made that half of the Copelaw site traffic would use the northern access and half would use the southern access on to Ricknall Lane. These proportions were also agreed within the scoping note for the main development transport assessment. The site unit numbers are based on the The County Durham Plan (2020) allocation (page 56) which details a yield of 770 to 2035 and a further 630 to be constructed beyond the Plan period (totalling 1400). This application assessment will therefore look at two scenarios;

- Scenario 1 : If just over half of the development site was built and occupied and were taking access from the north to join the A167 Central Avenue junction. This will be calculated on the 770 unit allocation and will demonstrate that the proposals are suitable should half of the site be constructed and only take access from the north.
- Scenario 2: If all of the development was built and occupied and were taking access from the north. This will be calculated on the 1400 unit allocation and will represent a sensitivity test on the junction to understand when the A167 junction would be over-capacity.

6.1 Transport Assessment (continued)

It is accepted the development site cannot be entirely built out from only one access to the north and this is already agreed within the scoping exercise undertaken with DCC and National Highways, so the transport assessment that will support the Low Copelaw development planning application will have to demonstrate a solution that will include a northern access and an additional southern access on to Ricknall Lane.

Overall, the proposed junction scheme provides new (but not excessive) capacity for current traffic, committed growth, and planned future growth in line with DCC's design requirements and policy.

Supporting Document: Transport Assessment Report 107163-PEF-ZZ-XX-RP-TR-000773.

6.2 Walking and Cycling

New 2m wide footways have been designed on both sides of the new access road to connect pedestrian traffic navigating between the A167 and the site. There are no formal public rights of way in the immediate area to connect with, the nearest being 1km away. Pedestrian links will therefore be constructed to a street lit adoption standard tarmac path, to link with the existing adopted path network and the private paths in the site that serve premises near Cedar Drive, York Road and Orchard Lane. The A167 junction signal crossings have been designed with improved pedestrian push button equipment and new ped detectors to run pedestrian crossing phases more efficiently.

There are no formal national cycle routes in the surrounding area nor any off-road routes to link with on the A167. There is a signposted leisure route called 'The Great Aycliffe Way' to the west of the A167 that traverses the town boundary and offers an attractive leisure route linking the towns residential areas and amenities. The proposals currently do not show any new cycle infrastructure, however it is accepted the A167 represents a barrier between the site and the routes connecting to the town centre, though this will be addressed when the site masterplan emerges. DCC's Transport Infrastructure Team leading on delivery of the works determined that new cycle facilities will be incorporated once the masterplan for the site is established and there is more information available regarding the developments cycling strategy, its infrastructure and cycle connectivity. Cycle facilities at the junction are expected to form part of contiguous high-quality routes with the details of associated infrastructure to be finalised post-planning and brought forward as a non-material amendment to the current design plans. As there are no cycle lanes on the carriageway signal heads incorporating cyclists are not required, however when cycle infrastructure is added to the designs, pushbutton panels will be changed to show both peds and bikes. All new off-carriageway cycle facilities will be incorporated in line with current standards and with reference to current guidance including Local Transport Note 1/20.

6.3 Public Transport

There are existing weekday, evening and weekend services running on the A167 and B6443 Central Avenue that provide connections between Darlington – Peterlee (X21) and Spennymoor – Darlington (8). The service stop on the B6443 Central Avenue provides connectivity into the nearby town centre and its bus station. Existing bus stop laybys with shelters (green points on Figure 6A) are ideally located to serve the current site premises via a path that links the site to the highway (route arrowed in Figure 6A).

Further public transport assessments will need to be made to support the development travel plan once the masterplan emerges, but there are no plans to amend or affect bus services as part of these proposals. There will be some modifications made to the A167 southbound bus-layby infrastructure by moving it approximately 10m north, to enable services that will be turning right at the signalised junction, to comfortably manoeuvre into the dedicated right turn traffic lane.

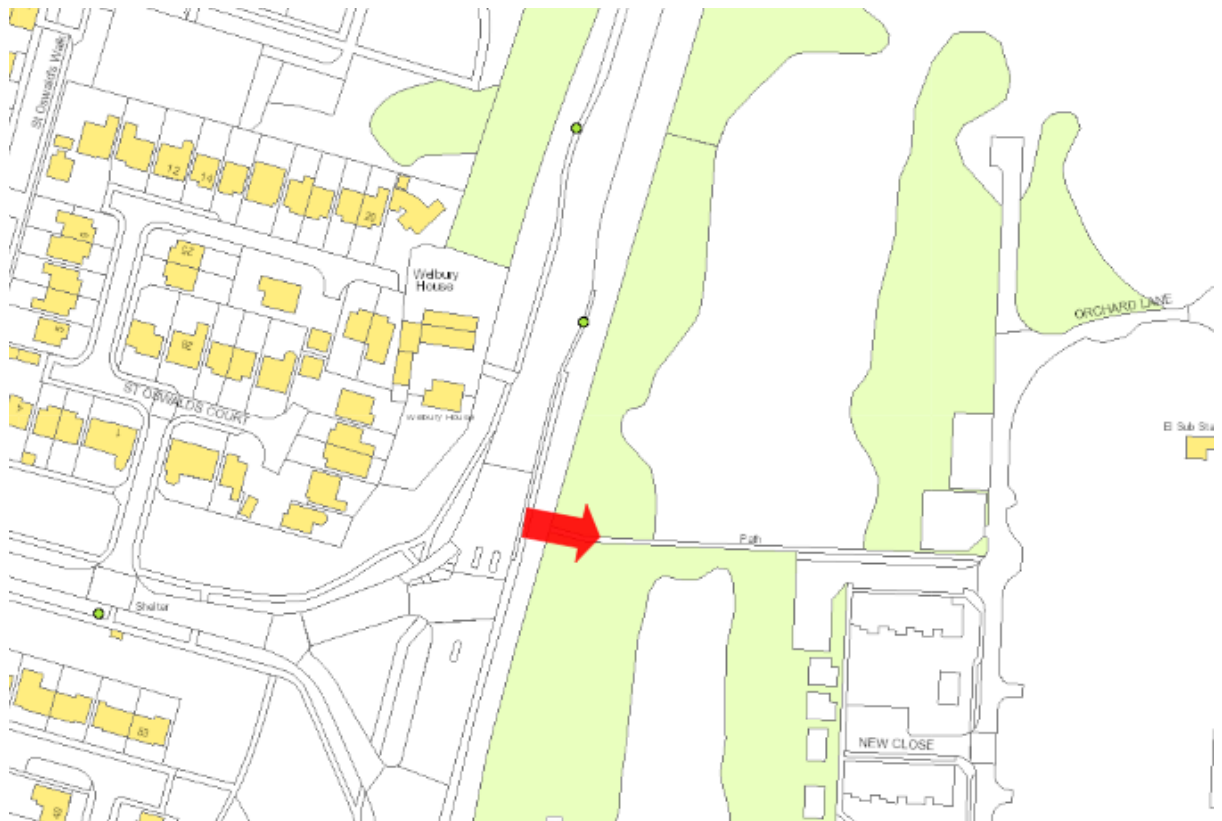
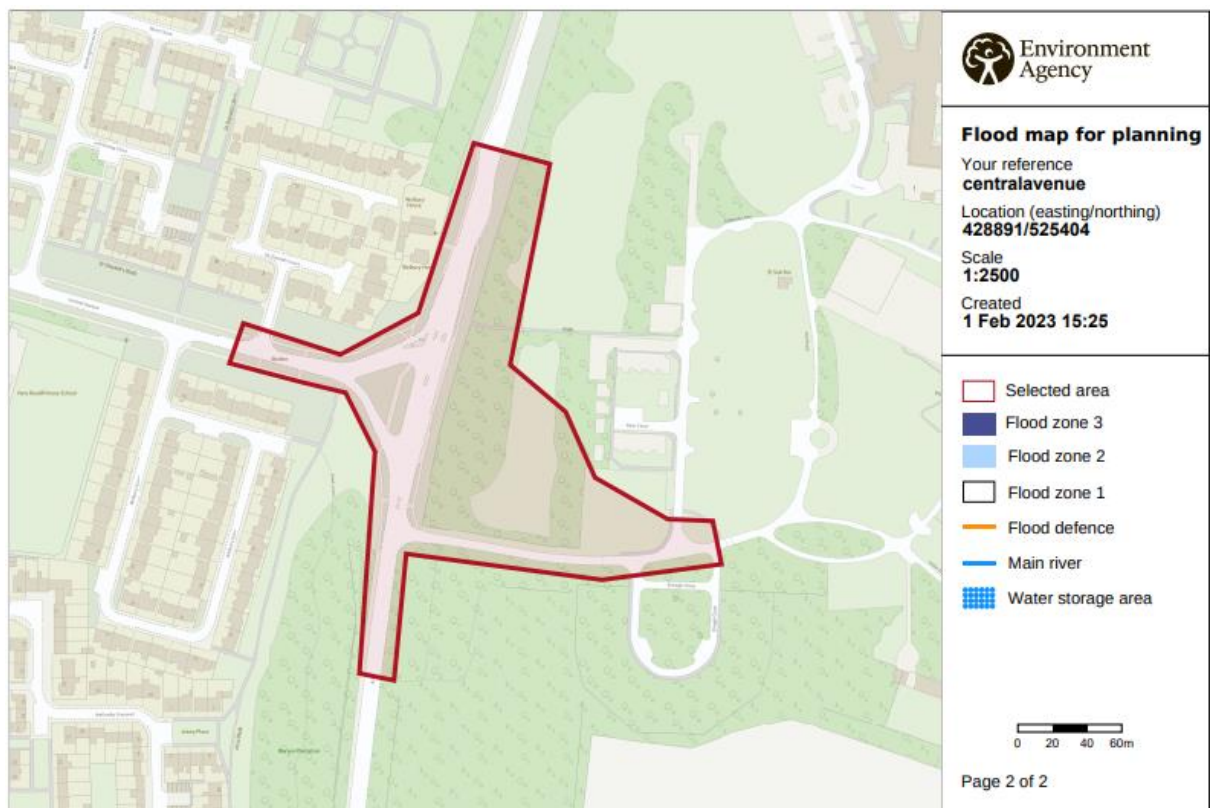


Figure 6A – Proximity of local bus stops

7.0 Drainage

7.1 Flood Risk

The National Planning Policy Framework (NPPF) requires that a site-specific flood risk assessment must be carried out to demonstrate that the proposals will be safe for its lifetime with regard to flood risk and drainage, taking into account the vulnerability of its users, and be developed without increasing flood risk elsewhere. The site is in Flood Zone 1 with a low probability to flood (Figure 7A). The supporting Flood Risk Assessment and Drainage Strategy report demonstrates that the proposed development will not increase flood risk to the local area and the strategy consists of a concept design which manages surface water on the application site to the requirements set out by NPPF.



© Environment Agency copyright and / or database rights 2022. All rights reserved. © Crown Copyright and database right 2022. Ordnance Survey licence number 100024198.

Figure 7A – Flood Risk Map

7.2 Water Management

Information pertaining to the types of existing strata evident on the site does not promote the use of soakaways, therefore infiltration will be ruled out as the primary solution for water management of the new access road. The proposal instead comprises highway that will be positively drained via a series of adoption standard gullies and drainage kerbs that will be connected to a piped surface water system taking rainwater to a water retention basin system installed within the grassed area adjacent to the highway verges as seen in figure 7B.

7.2 Water Management (continued)

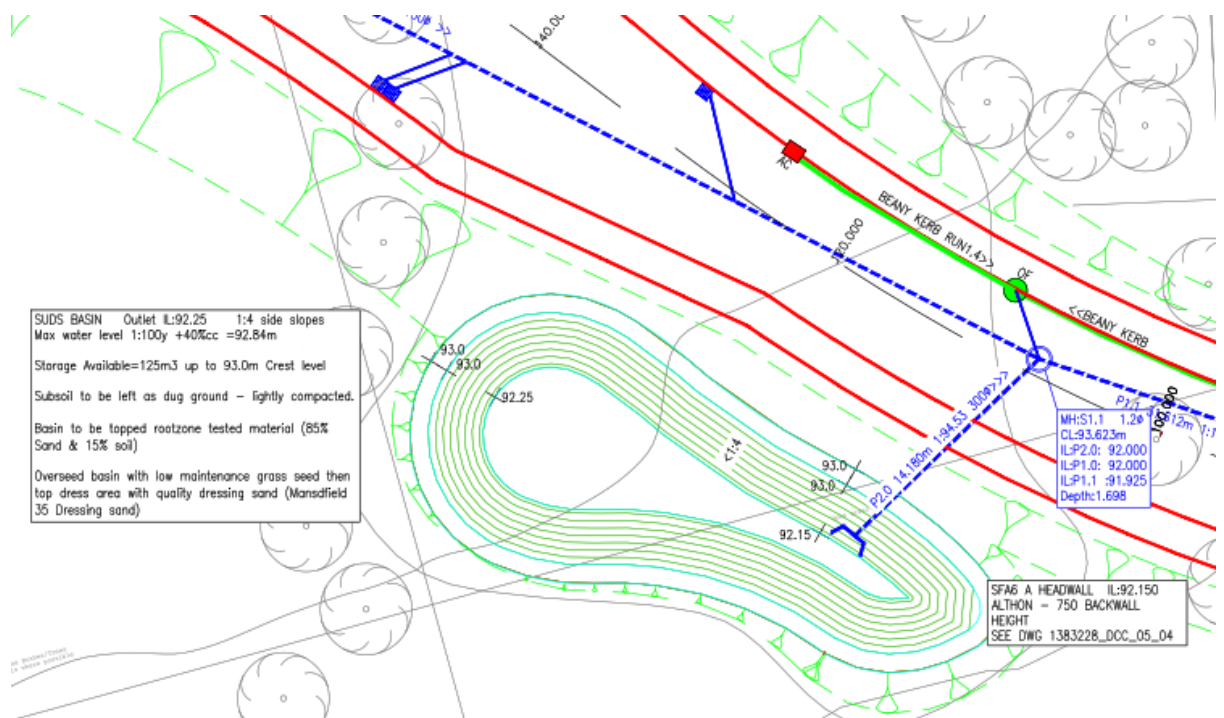


Figure 7B – SUDS Proposal

The land containing the SUDS feature will remain in the ownership of DCC and will be inspected and maintained under the Local Authorities highway regime. The sustainable drainage system proposed will utilise a landscape basin to manage both water quality (reducing pollutants leaving the attenuation) and quantity, so will be a suitable size to hold the calculated rainfall run off volumes and rainstorm scenarios in the capacity of the basin and pipes. If this is exceeded in exceptional storm conditions, the system includes a hydro brake in advance of a connection to an existing NWL sewer.

Drainage of the A167 will be by extension of the existing surface water drainage system and the DCC drainage team have calculated that the amended junction layout can be accommodated by the existing surface water network. New gullies will therefore make connection to the existing piped systems located beneath the highway.

Supporting Document. Drainage and Flood Risk Assessment January 2023

8.0 Landscape, Ecology & Geology

8.1 Site Existing Natural Features

The access proposal for the site has been designed to connect the existing junction with the current site road network and the opportunity for future development connectivity. Owing to the design requirements and the corridor identified for the new road connection, there will be impact on existing mature trees, hedges and grassed areas. An overview of the extents used for impact surveys that would be used to inform measures for the landscape strategy and ecological appraisal is shown in Figure 8A.



Figure 8A – Zone of landscape impact surveys

Image 8B



Image 8C



Images 8B and 8C above give an idea of the scale of trees affected adjacent to the A167. Images further into the site are detailed in Section 3 of this report.

8.2 Arboriculture Impact

There are a number of trees affected and that will need to be felled as well as retained trees that could be subject to various pressures and damage during the construction process. There are no tree protection orders on any of the trees identified. Prior to works commencing, the submitted Arboricultural Method Statement should be conditioned and directed to the site manager or contractor to be used as reference during the site clearance and construction periods. Tree loss, whilst not insignificant, still allows for the retention of much of the surrounding tree stock which will help visually mask the changes from longer views and the wider landscape. An overview of tree loss is shown in Figure 8B, where the red areas represent tree removal zones.



Figure 8B – Tree Impact Plan

Affected hedgerows on the site that represent a boundary between highway and the adjacent Copelaw site will be replaced. Given the restrictions of the site and the nature of the works, there is no scope on the site to provide all of the compensatory planting, therefore off-site compensation is proposed as part of the BNG requirement (paragraph 8.5).

Supporting Document :Arboricultural Impact Report ARB/AE/Acc/1990(Dec 22).

8.3 Landscape Overview

The existing landscape context is generally considered as urban. The site is situated outside of the 2020 County Durham Plan designated “Area of Higher Landscape Value” (figure 8C).

In 2008 the areas containing the site were classified in broader terms as mix of “Plantation” (Figure 8D), “Urban Green Space” (Figure 8E) and “Urban” (Figure 8F) in the Landscape Character Assessment.



Figure 8C – AHLV Area

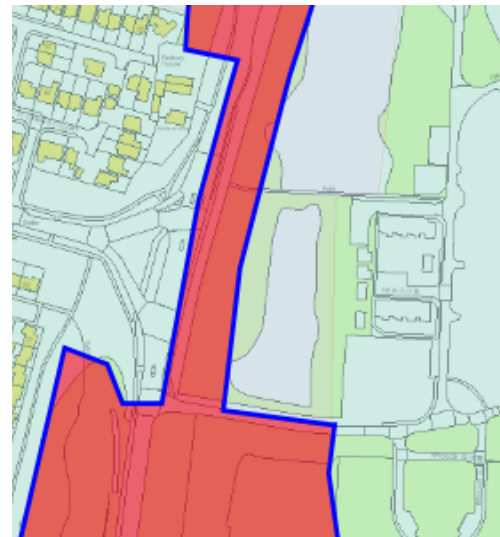
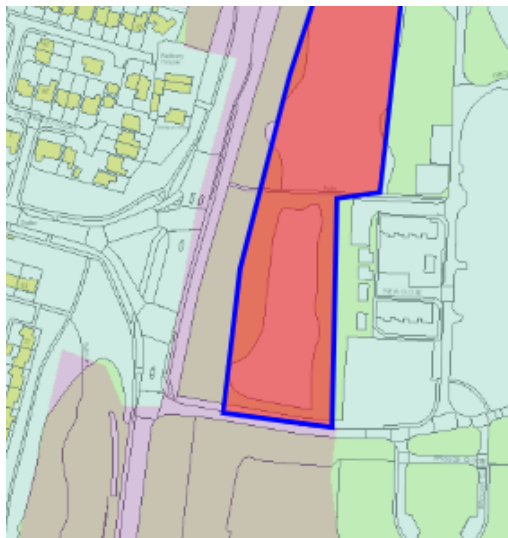


Figure 8C – LCA Plantation



8D – LCA Urban Green Space



Figure 8E – LCA Urban

8.4 Landscape Strategy

The principle of the landscape strategy plan (Figure 8F) is to generally try to add back in similar landscape typologies to what has been lost or impacted by the proposals, with the aim of keeping the landscape character similar and assisting with ecology and biodiversity net gain (BNG) requirements.

8.4 Landscape Strategy (continued)



Figure 8F – Supporting Document: Draft Landscape Strategy Plan, January 2023

8.4 Landscape Strategy (continued)

The below figures represent estimated quantities for the landscape features shown on the plan (Figure 8F) to compensate for loss and to assist with BNG:

Woodland areas to be removed	- 5101m ² /0.510ha
Individual trees to be removed	- 25 no.
Proposed woodland planting	- 3361m ² / 0.336ha
Proposed individual trees	- 84 no.
Proposed native shrub planting	- 450m ² / 0.045ha
Proposed native hedge planting	- 476 ln/m
Proposed seeding to verges	- 5455m ² / 0.545ha
Proposed wildflower seeding	- 746m ² / 0.074ha
Proposed species rich seeding to SuDS	- 320m ² / 0.032ha
Proposed emergent/marginal planting	- 44m ² / 0.004ha

8.5 Ecology Appraisal

An ecological impact assessment has been undertaken to support the planning application and formal surveys were implemented in September 2022 for habitats, badgers, newts and foraging/commuting bats, and the potential presence of other ecological receptors were risk assessed. The submitted report would identify nearby protected sites, describe existing habitats, evaluate the site's importance for nature conservation and identify potential significant ecological impacts and finally recommend mitigation and enhancement options. This assessment and the landscape strategy would feed in to a second report that has set out the biodiversity net gain requirements on the application.

The surveys and assessment concluded that badgers were not present at the site and there are no opportunities for bats to roost in the working areas of the site boundary, therefore no further pre-construction surveys are necessary. There are no statutorily designated sites within the development area nor any nearby and the appraisal concluded that no priority habitats would be affected by the proposals.

In accordance with paragraph 170 (d) of the NPPF and local planning policy, the appraisal included the use of the latest version of the DEFRA biodiversity impact assessment calculator to provide a baseline value for the site prior to development. The report shows there is a deficit of 4.55 biodiversity units (BU) from the baseline and that *“for area habitats an additional 4.66 BU are required to provide a 1 % net gain, whilst 5.65 BU are required to provide a 10 % net gain”*. The report concludes that delivery of net gain on the site will not be feasible given the small size of the site and recommends that off-site compensation will be required. Habitat surveys of candidate land will be required to provide a baseline score to work from. When addressing off site compensation, it may be necessary to provide new, or enhance existing, woodland, medium distinctiveness grassland (such as other neutral grassland, as opposed to amenity/modified grassland), and scrub habitats to satisfy habitat trading rules.

8.5 Ecology Appraisal (continued)

The provision of hedgerow in the landscape plan will result in a 161.60% gain for linear habitat types, so no further action is required hedgerows within the Metric.

In pre-planning discussions with Durham County Councils principal ecologist, it was agreed that Durham's ecology team would review the application and the net gain requirements against existing sites in Newton Aycliffe where compensatory measures could be delivered and the BNG requirement on the application may be able to be committed by way of securing a financial contribution to cover those costs. This will be advised during the application deliberation period.

Supporting Documents:

Ecological Appraisal Report

Biodiversity Net Gain Report Ref P22-803

8.6 Ground Investigation

A phase 1 desk study has been undertaken which has shown that the site is unlikely to have been exposed to anything other than construction/demolition waste as a result of site development and recent demolition works. The site is not located within a development high risk area for mining and quarrying, so no further investigation is required to mitigate against mining risk. The study reported very low risk of ground gases and low risks of ground contamination. A phase 2 site investigation was however recommended to provide data for the road foundation designs and any determine any risks posed to the construction process.

Ground investigation fieldwork was carried out in August 2020. Six trial pits were excavated and ground samples were tested. No elevated levels of ground contaminants were recorded nor were any asbestos fibres encountered. Given the site's proposed land use, the levels of contamination recorded on site gave no concern that they posed any risk to the current and future users of the site. The results of the investigation and lab tests determined that no pre-construction remediation strategy would be required but advises additional scrutiny and analysis of the earthworks during construction. A design code and earthworks specification has been prepared in accordance with current British Standards and details the sampling and geotechnical requirements that will need to be complied with by the contractor during the earthworks and construction stages of the scheme.

Supporting documents: Phase 1 Desk Study Report S200824 (Solmek)

8.7 Ground Conditions

Made ground was proven in all trial pits with generally soft cohesive material (reworked clay) with localised granular made ground underlain by firm and stiff glacial clay. Topsoil was encountered across the site to a maximum depth of 0.40m and was noted to be generally free from debris. Ground water was encountered in one of the excavations but with only minor seepage and no drainage concerns are noted. Additional tests were carried out to verify ground conditions and load bearing capacities to inform a suitable design for the access road.

Supporting documents:

Central Avenue, Design Statement S200824/DS (Solmek)

Central Avenue, Earthworks Specification S200824/ES (Solmek)

9.0 Historic Environment

9.1 Heritage

There are no designated heritage assets within the proposed development site.

9.2 Conservation

The site does not affect any areas that have special architectural or historic interest (conservation area).

Part of the site falls within an area classified broadly as a “Conservation & Improvement Priority Area” in the 2008 Landscape Character Assessment (Figure 9A).



Figure 9A – LCA 2008

9.3 Archaeology

The site does not feature in any areas of archaeological Interest as defined in Local Planning Policy Documents nor is it contained within the ‘Archaeological Assessment of the Aggregate Producing Areas of County Durham’. It should be noted that the mines and minerals rights below the subsoils of the site are registered to the Church Commissioners For England (CCFE). CCFE are a development partner for the wider emerging housing proposal and there is agreement through this partnership that the owner will exclude any rights for the purpose of the excavations required for the proposed access works.

10 Construction Management

10.1 Construction Management Plan

Transport & Highways have not prepared a construction management plan as this will be organised once works for other junctions associated with the future development site have been planned. Highway improvement measures at Rushford Roundabout and Ricknall Lane (not part of this application but will feature in the Low Copelaw development application) are to be carried out under Highway legislation, but are to be planned and delivered by DCC's Transport & Highways Service. It was therefore requested in pre-planning discussions that the construction management plan be conditioned.

10.2 Air Quality & Noise

During road construction the site will generate noise and dust in proximity to existing sensitive receptors, adjacent to the A167 junction and the existing premises on the Copelaw site. The construction management plan will include the following:

- A Dust Action Plan including measures to control the emission of dust and dirt during construction
- Details of methods and means of construction noise reduction
- Details of measures to prevent mud and other such material migrating onto the highway from construction vehicles;
- Designation, layout and design of construction access and egress points;
- Details of contractors' compounds, materials storage and other storage arrangements, including cranes and plant, equipment and related temporary infrastructure;
- Details of provision for all site operatives for the loading and unloading of plant, machinery and materials
- Details of provision for all site operatives, including visitors and construction vehicles for parking and turning within the site during the construction period;
- Waste audit and scheme for waste minimisation and recycling/disposing of waste resulting from construction works.
- Detail of measures for liaison with the local community and procedures to deal with any complaints received.

The management strategy shall have regard to BS 5228 "Noise and Vibration Control on Construction and Open Sites" to guide the implementation of site activities and operations. The approved Construction Management Plan shall also be adhered to throughout the construction period and the approved measures shall be retained for the duration of the construction works. This is a statutory requirement on the appointed contractor and this requirement is detailed within the supporting 'Central Avenue Design Statement' document reference S200824/DS (Solmek).