



Engineering excellence to unlock
planning and development challenges

ARDENT
CONSULTING ENGINEERS



Ardent have worked with Bellway Strategic for several years and have provided robust technical information on a number of sites from pre-offer right the way through to the submission of planning applications and evidence for planning appeals.

The team is dynamic, well resourced and has a raft of expertise to provide a full package of technical services to meet our requirements throughout the acquisition and planning process. This enables us to continue to acquire quality strategic sites and ultimately secure planning permissions in a timely manner.

We would not hesitate to instruct Ardent in the future and look forward to maintaining the strong relationship we have established.

Ben Stacey
Strategic Land Director (South)



We have worked with Simon and the team at Ardent since our inception in 2018 and for 10 years prior with a previous business.

The team have always provided an excellent service from pre-acquisition due diligence through to detailed planning applications. The team are the most responsive that I have worked with and will tailor their services to the requirement of the job, I would whole heartedly recommend them.

Tom Harris
Founder

Delivering comprehensive advice and support to the development sector

Ardent Consulting Engineers is an award winning consultancy that provides transport, infrastructure planning, engineering and environmental advice to the development industry. We, add valuable input at every stage of a project, from due diligence and inception, through to planning, design and construction.

We employ over 70 trained professionals at our London head office and five regional offices in Essex, Suffolk, Kent, Bristol and the Midlands.

As a multi-disciplinary consultancy, we advise on a wide range of schemes and development uses across the country, ranging from industrial and commercial use redevelopment, to strategic residential and mixed use schemes. We partner with our clients and government bodies to deliver projects in sustainable manner, while ensuring the social, economic and environmental values of the schemes we work on are realised now and in the future.

Our input into the development industry has been recognised over the years, with multiple nominations and awards by leading bodies in the civil engineering industry:

- Listed in the top 100 consultancies by the 'New Civil Engineer (NCE)' for three years running
- Named as finalist in the NCE Consultant of the Decade
- Won the Specialist Consultant of the Year award in 2014

Ardent offers a wide range of services within the development sector, including:

- Pre-purchase due-diligence, concept design, planning and construction
- Transport assessments and supporting documents
- Flood risk assessments and drainage design
- Flood alleviation works
- Noise assessments
- Air quality assessments
- Development feasibility
- Infrastructure and highway design
- Sustainable drainage systems (SuDS)
- S278/38 highway works design
- Environmental Statement chapters
- Site enablement and service procurement
- Expert witness
- Loss of containment modelling and mitigation for the petrochemical and chemical industry



**LISTED IN THE TOP 100
CONSULTANCIES BY THE
'NEW CIVIL ENGINEER (NCE)'
FOR THREE YEARS RUNNING**



National Institute of Medical Research, Mill Hill, Barnet

Proposal:

500 residential units and 3,000 sqm of supporting commercial office/retail use

Client:

Barratt Homes

Architect:

Hawkins Brown Architects/ DMFK

Our Remit:

- Pre-purchase due diligence support in the form of technical notes
- Full (engineering) planning support covering transport, flood risk, drainage, noise impact, air quality and utilities
- Environmental Statement chapters

Overview:

- The proposals for this large strategic site in North London comprised the demolition and partial re-use of existing listed buildings within a 19-hectare site in the green belt to provide a residential-led scheme
- The site had a number of constraints, including:
 - ▢ Existing 1:8 levels across the site, which dictated a number of design decisions to achieve a policy led scheme which was both buildable and also economical
 - ▢ A blanket tree preservation order across the site
 - ▢ Off-site highway impact
 - ▢ Suitable provisions of a Part M compliant access road and internal road alignment given the site's green belt designation and conservation area classification
- The site also had poor accessibility, with limited access to nearby bus and Underground services. To overcome this, we prepared a detailed transport and travel plan strategy to provide incentives for non-car travel in the form of internal site car share clubs, cycle hire strategies and school drop-off/ pick up services to reduce carbon emissions
- We created a high quality SuDS strategy to reduce surface water run-off and lower carbon emissions during and post construction
- Following refusal at planning committees on design grounds, the site was called in by the Mayor of London. Ardent attended and spoke at the call-in and the site was subsequently given planning permission

Enham Park, Knight Enham

Proposal:

1000 residential units, education and community facilities

Client:

Bellway Homes (Strategic)

Our Remit:

- Pre-purchase due diligence support covering transport, flood risk, drainage, noise and air quality
- Technical reports to support local plan representations and site promotion to Test Valley District Council

Overview:

- We were asked to provide engineering and transport planning due-diligence for a prospective site covering 154 hectares for promotion to a strategic residential-led development with supporting sports, education and community facilities
- Given the scale of development, the key areas for consideration were access provision, identification of off-site highway improvements and a site-wide drainage strategy
- We produced detailed technical reports and promotion documents to support its representations to Test Valley District Council



Channels Golf Club Redevelopment, North Chelmsford

Proposal:
750 residential units

Client:
Ptarmigan Land

Architect:
JTP

Our Remit:

- Pre-purchase due diligence support
- Site wide and separate phase engineering planning support covering transport, flood risk, drainage, noise impact
- Specification and contract plan production
- Site-wide strategic road and drainage design, and site wide travel plan support
- Detailed design of strategic relief road

Overview:

- Following the granting of the outline permission for 750 units at the Channels Golf Course, we assisted the promoter, Ptarmigan Land, and the phase developers with the various reserve matters applications
- As a former golf course, with historic landfill issues, the site had a number of key constraints, mainly around levels and ground conditions
- We produced detailed drainage, highway and levels designs to ensure compliant and adoptable policy and design criteria were achieved, whilst also providing value engineered solutions
- The site had a complex surface water design solution, which involved the connection of a number of existing lakes across the site area, along with the design and inclusion of a radial relief road
- In addition to the infrastructure services, we also provided transport and travel support for a number of the development phases



Mardyke Farm, Havering

Proposal:
1500 residential units,
primary school, health
facilities, specialist
education facility and other
local amenities

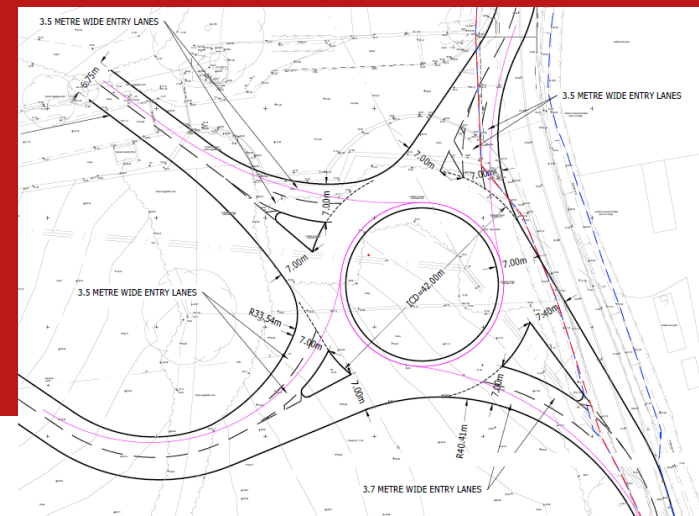
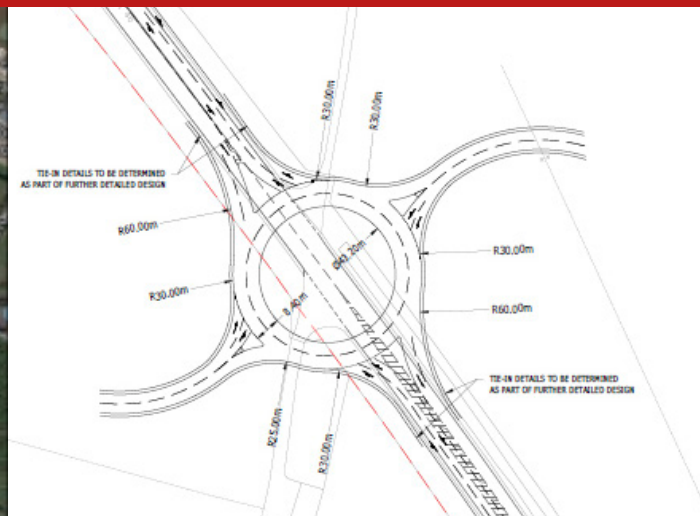
Client:
Constable Homes Ltd

Our Remit:

- Transport planning and engineering support to provide local plan representations and Examination in Public (EiP)

Overview:

- We provided transport planning and engineering support to the client and consultant team to produce local plan representations to remove the site from the green belt so that it could be redeveloped for a residential-led scheme, comprising of housing, education and community facilities
- Local plan representations were produced as part of EiP process for the emerging local plan, including:
 - A detailed highways and transportation appraisal
 - Masterplan design support
 - Written response to inspector's questions on the local plan, and
 - Attendance at relevant sessions of the EiP



Land off A46, Evesham

Proposal:
up to 600 residential units

Client:
Harris Land Management Ltd

Our Remit:

- Pre-purchase due diligence support in the form of technical notes on behalf of the site promoter
- Engineering planning support covering transport, flood risk, drainage, noise impact, air quality and utilities and
- Production of representation report for the South Worcester Development Plan Review

Overview:

- To support the developer's site promotion aspirations, we undertook an initial site masterplan overview. We also provided key transport planning and highway design advice to provide key pre-purchase comfort that site access could be achieved, with an indication of the likely off-site impacts that would need to be considered
- We assessed the flood risk, drainage and noise implications to highlight the site's qualities and ensure that no underlying constraints would affect the site's promotion for residential development
- We considered the highway impact of the scheme alongside the traffic and design implications of nearby strategic consented uses
- Representations were prepared and submitted as part of the South Worcester Development Plan Review

Land east of Billingshurst

Proposal:
up to 1200 residential units,
3,000 sqm of commercial/
retail use

Client:
Bellway Homes Ltd/
Crest Strategic

Architect:
DHA/David Plant

Our Remit:

- Site wide engineering planning and representation support covering transport, flood risk, drainage, noise and vibration, air quality and utilities provision
- Constraints plan production
- Site wide strategic road and drainage design
- Production of representation reports for the Horsham District Council Local Plan
- Outline planning support

Overview:

- The proposals comprised the representations to promote the 90-hectare site to provide a residential-led mixed use scheme in East Billingshurst
- The scheme had a number of constraints including;
 - Limited access opportunities on the nearby strategic road
 - Noise impact from the railway line that ran through the site
 - Existing surface water flooding issues
 - Lack of opportunities to access non-car travel options
- We prepared a number of reports to overcome the known constraints and provided representation reports to submit to Horsham District Council. These included access design solutions, drainage strategy designs and travel plan proposals, and key masterplan designs including an access and car parking management strategy to promote travel by train



Woodgate, Pease Pottage

Proposal:

600 residential units,
a primary school, hospice
and community café

Client:

Thakeham Homes Ltd

Architect:

JTP

Our Remit:

- Full (engineering) planning support covering transport, flood risk, drainage, noise impact, air quality and utilities
- Environmental Statement chapters
- Detailed highway and drainage design

Overview:

- The site was promoted and identified in the Mid Sussex District Council District Plan as a residential-led mixed use development with 600 units, primary school, hospice and café
- It is located in a rural setting in the High Weald Area of Outstanding Natural Beauty (AONB)
- The site was cut-off from the local community area as it was situated adjacent to Junction 11 of the M23. This presented a number of access, sustainability and highway impact constraints that needed to be overcome as part of the hybrid application
- We produced a number of planning submission documents to support the application, including:
 - ▢ Transport assessment (including the travel plan and detailed Vissim highway modelling)
 - ▢ Noise assessment
 - ▢ Flood risk assessment and supporting drainage strategy
 - ▢ Air quality assessment and
 - ▢ Environmental Statement chapters
- The site received planning approval and we have continued to work on the scheme through the detailed design stage

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