

## Infrastructure Design

### Award winning design team for structural and geotechnical design solutions

The award-winning Aspin teams are at the cutting edge of design excellence, providing structural and geotechnical design and drawings for [rail](#) [1], [highways](#) [2] and all types of civil engineering projects.



[3]

With many years' experience, the highly skilled teams comprise chartered civil, structural and geotechnical engineers. They provide the extra assurance of 'safe hands' when it comes to meeting the challenges of infrastructure projects and frequently partner with clients' in-house teams.

No design needs are ever the same and Aspin works in close collaboration with clients to deliver full detailed designs or one-off feasibility studies. Delivery of designs incorporates compliance and most importantly addresses the individual needs and constraints of the project including the site, available plant and preferred working methods.

The practical experience also covers the 'know how' in working with construction teams and

securing technical approval from official bodies including Network Rail and the Highways Agency, with plenty of successful projects to prove it.

Aspin's design team brings a friendly and professional service that's sought after by clients demanding the most efficient way to deliver projects from the ground up to completion. It's a service rarely matched by larger, more generalist consultancies.

## Design Services from Aspin

- Structural surveys
- Site surveys including ground investigation
- Geo-environmental investigations
- Flood risk assessments
- Foundation and retaining wall design
- Slope stability including soil nails / rock anchors.
- Railway track-bed stabilisation
- Temporary works designs including the provision of temporary works coordinators
- Drainage
- Roads and hard-standings
- Specialist equipment supporting structures for [highways](#) [2] and rail: gantries and signs
- Bridge assessment and design
- BIM services
- 2D drawings, 3D modelling
- CDM Principal Designer

## The geotechnical design experts

Geotechnical design is part of Aspin's site investigation and inspection and service, which employs qualified geologists as part of the team. It means that clients can be sure that ground and groundwater conditions are fully assessed before any construction takes place. This guides the selection of the best solutions for above and below ground works including foundations, retaining walls, embankments, [earthworks](#) [4] as well as bridges and tunnels.

## Efficient designs and innovations

Designs are produced using the latest software and techniques, including BIM as part of Aspin's ongoing investment in research and development.

Aspin's design team is always innovating and among the achievements are:

### Modular Steel LOC Staging

Developed with Aspin construction teams and complying with all Network Rail's standards, this is one of the [simplest stagings](#) [5] available. It minimises construction costs, complications and installation times. It can be extended for additional LOCs.

### RAMPad foundation (patented innovation)

For smaller and more lightly loaded signing and signalling applications which has the advantage of requiring zero wet trades during construction.

## Modular station platform system

Works in conjunction with driven tubular piles (but can be modified to suit strip footings). It provides an equivalent or lower price to traditional railway platforms and can be constructed in a fraction of the time, this platform has been chosen by Network Rail and Crossrail [6].



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### Links:

[1] <http://www.aspingroup.com/rail/rail-about>

[2] <http://www.aspingroup.com/highways-infrastructure/highway-engineering>

[3] [http://www.aspingroup.com/sites/default/files/page-images/infrastructure-1\\_1.jpg](http://www.aspingroup.com/sites/default/files/page-images/infrastructure-1_1.jpg)

[4] <http://www.aspingroup.com/services/civil-engineering/groundworks-earthworks>

[5] <http://www.aspingroup.com/services/civil-engineering/loc-staging>

[6] <http://www.aspingroup.com/services/civil-engineering/modular-platform-extensions-train-platforms>

[7] [http://www.aspingroup.com/sites/default/files/page-images/infrastructure-2\\_1.jpg](http://www.aspingroup.com/sites/default/files/page-images/infrastructure-2_1.jpg)