



Paragon AV9 MKII Enclosed Shelter



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## 'Paragon': the original anti-vandal waiting shelter

**Macemain + Amstad's modular 'Paragon' system is being used throughout the rail network for shelters, waiting rooms, ticket offices, toilet and washroom enclosures, walkways, gate line, stairwell and platform canopies**

**M**acemain + Amstad's modular Paragon Anti-Vandal (AV) waiting shelter is the preferred platform passenger waiting shelter for many train operating companies.

The original Paragon AV waiting shelter was designed in 1998 by Macemain + Amstad in conjunction with Railtrack (now Network Rail) with the specific brief to design out vandalism together with reducing maintenance costs. Every aspect of the Paragon design was examined and developed to withstand vandalism. Macemain + Amstad continues to review design aspects and has successfully developed the **Paragon AV MKII Shelter**, which can now be seen across the rail network.

The original Paragon AV Shelter is still available for customers who wish to retain the natural ventilation (a design element of the original Railtrack brief) afforded by the aesthetically rewarding and unique wishbone structure feature.

Over the past 12 months, Macemain + Amstad has worked with a number of train operating companies across the UK rail network to complete improvement works at over 100 stations as part of the National Stations Improvement Programme. During 2010, Macemain worked with London Midland Trains on the improvement of the 'Chase Line', a major rail commuter route between Stafford

and Birmingham. A total of twelve Paragon AV9 MKII Shelters were installed across six stations. As main contractor, Macemain provided a 'turnkey' solution to London Midland Trains, providing an experienced project management team. In addition to the routine design, manufacture and installation of the passenger waiting shelters, this team could manage all third-party approval processes

### **The Paragon AV MKII Shelter is the only anti-vandal platform shelter to encompass the following as standard:**

- Nine-panel AV glazing system built around maximum glass panel size (no greater than 0.5m<sup>2</sup>) to ensure maximum impact resistance (developed in conjunction with Pilkington Glass). A three-panel AV glazing system is also available.
- Extruded welded aluminium sub-frame structure that enables easy single panel replacement
- Steeply angled glazing frame external structure maximising impact resistance in conjunction with no leverage points to inhibit climbing
- 10mm clear toughened glass with all edges rubber cushioned to give maximum impact absorbability
- Solid fire-rated composite infill panels along the vulnerable bottom glazing section of the shelter
- 316L stainless steel used throughout the shelter
- ※ 240 grit brushed stainless steel columns to minimise scratching
- ※ textured stainless steel cladding which is fully encapsulating and inhibits scratching, graffiti and climbing
- ※ anti-tamper security fixings used throughout
- ※ dual-height seating with arms
- Polyester powder-coated roof panels secured by a unique reinforced rib system enabling noiseless expansion and contraction of the roof with no fixing holes guaranteeing a leak-proof roof with no maintenance
- Fully recessed LED lighting (IP65) along the length of the shelter giving 150 minimum LUX level
- Integral electrical management including containment for CCTV and low voltage protection
- Integral drainage and water management
- All aluminium is pre-treated and painted to BS and ISO standards
- Modular fast track on-site installation
- All components are easily interchangeable by a single operative
- Achilles Link-up approved



*Paragon AV9 MKII Cantilever Shelter with LED lighting*



*Paragon Stairwell Canopy*



*Paragon AV3 MKII (Double Width) Enclosed Shelter*

including Landlord Consent Submissions, the re-routing of utilities and provision for new utility supplies, and all electrical connections and certifications.

Crucial to the project management was ensuring that the safe operation of the stations was maintained at all times and the works did not affect the operations of the Chase Line. All groundworks, including the safe removal of existing platform infrastructure, the provision of civil works, a platform extension and the installation of the new passenger shelters, were all successfully undertaken during normal working hours whilst maintaining the full operation of each station.

Macemain + Amstad is able to offer a turnkey solution for the improvement of station platform infrastructure to train operating companies and Network Rail.

The company's experienced 'Paragon' portfolio of products covers:

- Modular waiting shelters
- Seating, both perch and DDA-compliant full seating
- Waiting rooms
- Ticket offices
- Toilet and washroom enclosures
- Gate line canopies
- Platform canopies
- Stairwell canopies
- Wind screening and balustrade

In delivering a truly 'turnkey' solution to the improvement of platform infrastructure, Macemain + Amstad can support the train operating companies and Network Rail with the following services:

- Project management covering:
  - \* Landlord consent / Form B Submission documentation
  - \* Design studies
  - \* Programme delivery, on time and to fixed budget
  - \* Risk Assessments and Method Statements
- Safe site set-up, enabling works, take-down and safe disposal of existing redundant infrastructure, re-routing of utilities and platform services (passenger information, CCTV and platform lighting) and civil groundworks
- New infrastructure standard and bespoke design, manufacture and installation to suit station constraints
- Fit-out and commissioning services.

Macemain + Amstad continues to invest in the further development of the modular Paragon system to provide a range of

complementary passenger transport infrastructure products and give clients the opportunity to add value to their station developments and create quality waiting environments for their passengers. Continuing investment in laser CNC machining technology and a skilled workforce, combined with the elegant use of modern materials, enable Macemain + Amstad to offer clients a variety of quality products and a bespoke design service that can provide practical and workable solutions. ■

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 For further information or to discuss your project requirements please contact Karen Martin:

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