CI/SfB (4-) July 2006
L5294

BAILEY EAVES SYSTEMS

LOW MAINTENANCE EAVES SYSTEMS THAT COMBINE AESTHETICS AND VERSATILITY

The eaves is one of the key features of a building's architecture. It provides the important line that heads the elevation, helping to bring together many visual elements and forming the junction between walls and roof. Significantly the eaves is also where rainwater is channelled from the roof as well as protecting and shading the walls, windows and doors underneath.

The eaves therefore has a function to fulfil as well as providing a key area for architectural statement. Bailey specialises in getting this critical building component right in terms of function, buildability and aesthetics.

Bailey Eaves Systems are achieved by one of three methods: fully bespoke systems, design and assembly using Bailey standard components or modular Impact Eaves which are attached simply and quickly to the building.

Manufactured from sustainable and environmentally safe aluminium, Bailey Eaves systems are the result of over 30 years' expertise in the design and manufacture of low maintenance building products.

DESIGNING THE EAVES

Bailey Eaves systems range from complete bespoke systems through standard component fascia and soffit assemblies such as V-Joint and Cassette systems to modern easy to design and install modular eaves products. Whilst there will always be a need for complete bespoke eaves for high value projects the introduction of the Bailey Impact range with its speed and ease of installation and Bailey Laser-Line have revolutionised the way that eaves are designed and built.

FULLY BESPOKE EAVES

Bespoke eaves can be curved in section, plan or elevation. Curves can be single or multiple radii, producing sweeping combinations of concave and convex surfaces with stepped details, shadow gaps, aerofoils, bullnoses, chamfers and chisel shapes. The designer has almost unlimited freedom for creative expression to complement the building's architecture.

Working from your sketches and preliminary drawings, Bailey has the experience to translate design needs into practical and workable metal fabrication and installation solutions.

Bailey has worked with many leading architects and knows exactly the specialist contribution required.

Exeter Court

I-LINE

Bailey I-Line is an eaves feature that offers new creative possibilities for architects and designers. Inspired by the use of exposed steel beams, and designed to evoke strength and structural integrity, I-Line and I-Line Snap-on bring the benefits of light weight and low maintenance usually unavailable to buildings with exposed structures.

I-Line and I-Line Snap-on can be used as a single feature at the eaves, as an external façade detail within elevations and as a repetitive feature within a fascia. Alone or in combination with other Bailey eaves products, they provide a simple way to add drama and impact to your project without compromising aesthetic and practical considerations. And because I-Line is suitable for both horizontal and vertical installation, it can be used in combination with curtain wall systems to create original features that will define any building.

Chorley Bus Station

STANDARD FASCIA SOFFIT ASSEMBLIES

Bailey has two standard fascia soffit assemblies specially designed to bring distinctiveness and individuality to a wide range of applications. Each has specific advantages and each produces a very attractive and practical finished result.

Both systems have been rigorously designed and developed to perform superbly, be particularly neat in finished appearance and be installed easily, taking into account normal building tolerances and movement requirements.

Retail shop, Castlepoint, Bournemouth

Cassette

Many designers require soffits that are particularly flush and flat, notably for modern commercial buildings. Bailey's Cassette system fulfils this need and because of its design remains truly flat without the ripples and fixing dimples that arise with simple sheet metal soffits.

Leighton Park School, Reading

V-Joint

Bailey's V-Joint plank is more straightforward and consists of a standard vee-jointed extruded profile, together with purpose designed trims, edge profiles and accessories. In addition to eaves construction, V-Joint is ideal for creating interesting building features such as gable infills and coffers.

MONSOON GUTTERS

Bailey Monsoon is a low maintenance, factory fabricated gutter system lined with a BBA certificated waterproof membrane.

Bailey Monsoon membrane lined gutters offer higher performance than unlined types. Due to effectively seamless jointing maximum drainage efficiency is achieved because rainwater can flow more freely and it is less likely that leaves and other detritus will cause damming.

Shopping Village, Bournemouth

LASER-LINE CARCASSING

Bailey Laser-Line is an accurately fabricated one-piece component that can be aligned using laser beams or traditional methods. As a single component, often for the entire eaves installation, Laser-Line eliminates the use of separate rails, angles and channels, thus reducing the time taken to install carcassing and removing the problems of aligning separate components.

Laser-Line's strength and light weight means that the carcassing brackets fix directly to the structure at as few as two points. Dependent on site conditions, Laser-Line can be installed using either mobile or standing access. The result is effective and measurable economies of installation.

Broadgreen Hospital, Liverpool

IMPACT EAVES

As the pioneer of the secret fix bespoke eaves system, Bailey became aware of the need for a more modular approach in the interest of reducing site time for both safety and economic reasons. Therefore Bailey has developed its Impact eaves system to provide specifiers, main contractors and subcontractors with an economic and highly buildable solution to eaves detailing, whilst maintaining the high aesthetic qualities of existing Bailey systems. This approach still provides the contractor and client with design flexibility and wide colour choice.

Bailey Impact Eaves offer a wide choice of eaves profiles, verges and details that can be used to provide the complete eaves treatment as well as creating original features that will define and enhance any building.

Offering unparalleled benefits in terms of cost effectiveness and ease of installation Bailey Impact products provide a far simpler approach to eaves construction which can be easily installed to accurate line and level. Eaves of up to 900mm projection from the wall face can be simply attached to one wall face at the wall line.

Student Accommodation, Bournemouth

Further Information

There are product datasheets available for each eaves and rainwater system as well as Bailey's comprehensive technical handbook.

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BAILEY

CI/SfB August 2006
(4-)
Uniclass L5294

CASSETTE FASCIA SOFFIT ASSEMBLIES

FLAT, FLUSH SECRET FIX ALUMINIUM FASCIA SOFFIT SYSTEMS WITH COMPLETE DESIGN FLEXIBILITY

Bailey Cassette Eaves System has been rigorously designed and developed to be particularly neat and smooth in finished appearance whilst featuring ease of installation. The system provides a long life, low maintenance solution for this critical building element.

Bailey has the experience to translate aesthetic requirements into practical and workable solutions, without reducing the impact and integrity of the original concept.

The system is particularly suited to applications where architects and specifiers require an eaves that is sleek and smooth, for example in modern commercial buildings. Bailey's Cassette system fulfils this need because its composition ensures each cassette panel remains truly flat, without the ripples and fixing dimples that arise with standard sheet metal soffits.

Bailey Cassette eaves have been used to create a range of interesting and innovative features and effectively achieve straight, faceted, and curved installations. Cassette systems can also be produced curved in section and plan simultaneously.

Architects and designers can combine standard components to create unique and building-specific eaves that will add impact to any project.

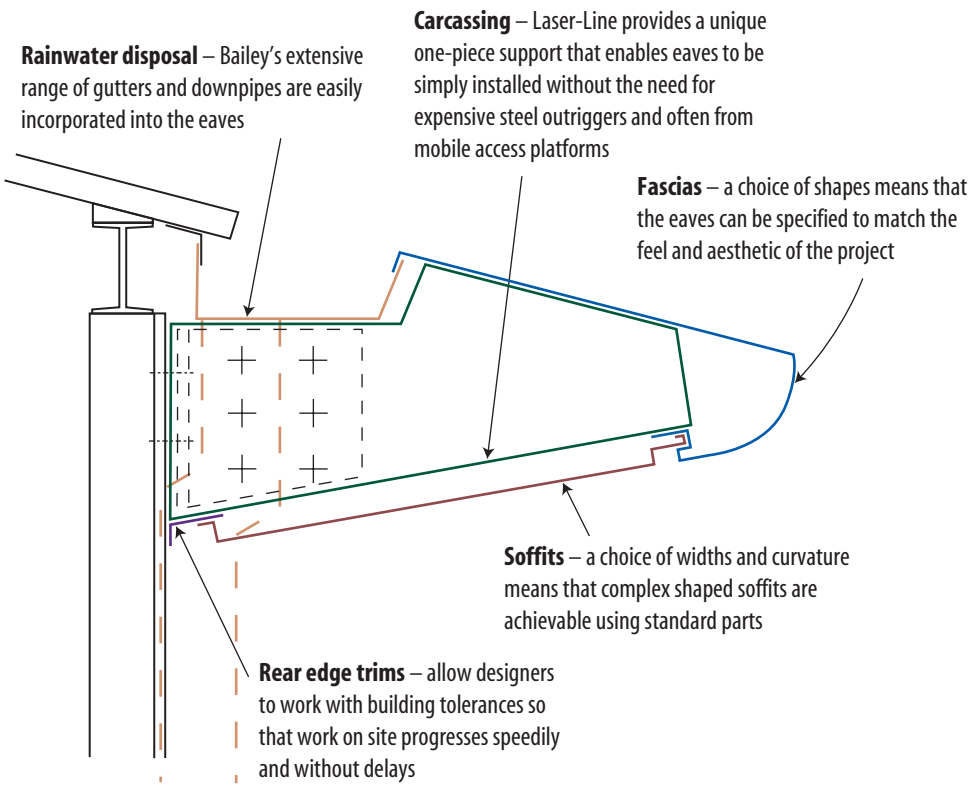
BAILEY

HEADQUARTERS BUILDING, EGHAM

CONSTRUCTING THE EAVES

Bailey Cassette Eaves System has been developed so that architects can easily design signature eaves that are both cost effective and easy to install.

The system comprises five elements: fascias, soffits, rear edge trims, carcassing and rainwater disposal. Each element is selected from a range of standard components which are combined to create the shape the designer requires. Once the shape and design have been finalised the key to speedy and cost effective installation is the use of Laser-Line carcassing. This allows the eaves to be simply bolted to a building elevation with consequent savings in time and cost of providing access.



BAILEY CASSETTE FASCIA SOFFITS

It is often the eaves that defines the shape and character of a building. As well as providing shade and protection, the eaves is an integral part of the building skyline.

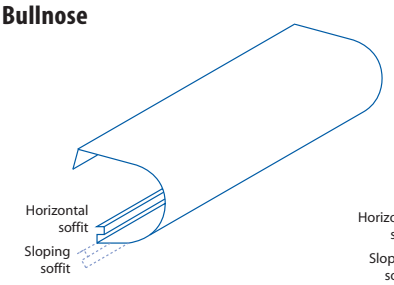
The Bailey Cassette Eaves system provides a range of tried and proven components which specifiers and designers can combine to create exciting and visually attractive eaves which are easily applied to the building. Bailey Cassette Eaves are manufactured in aluminium and so have the benefits of longevity, strength and light weight. Components are available in a wide range of finishes including architectural polyester coating and anodising. Specifiers have a choice of 220 RAL, BS and Bailey house colours with matt, satin, gloss and metallic finishes available.

Using the core components shown here designers and architects have the freedom to mix components to create original combinations that can result in unique eaves that will enhance any project.

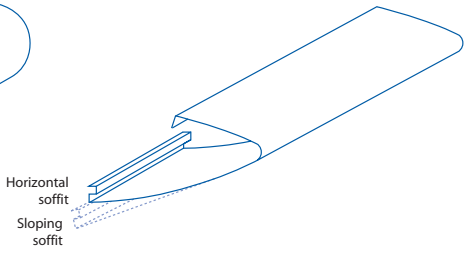
FASCIAS

Fascias can be designed to many different shapes and are the flexible part of the eaves. This enables coordination between roof, soffit and wall to achieve aesthetic requirements appropriate to each individual project. Some popular designs are illustrated. Dimensions are flexible to allow specific eaves projections to be achieved in conjunction with standard soffit panels. For example, 600mm soffit panel with 150mm projection to fascia provides 750mm overall eaves projection.

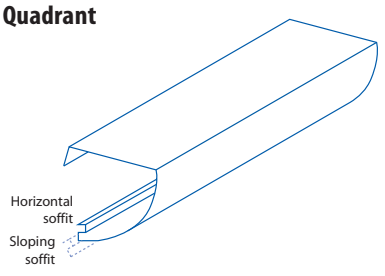
Bullnose



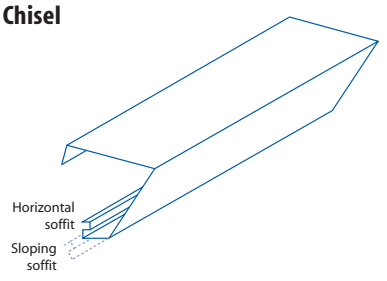
Aerofoil



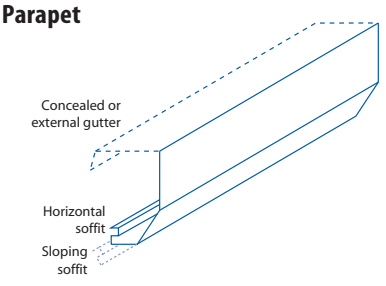
Quadrant



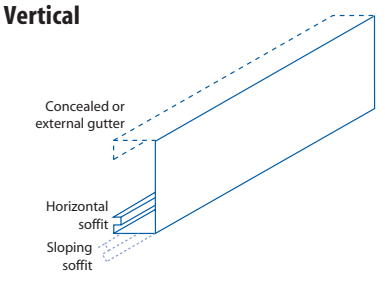
Chisel



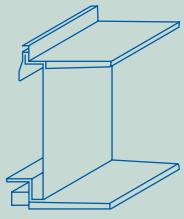
Parapet



Vertical

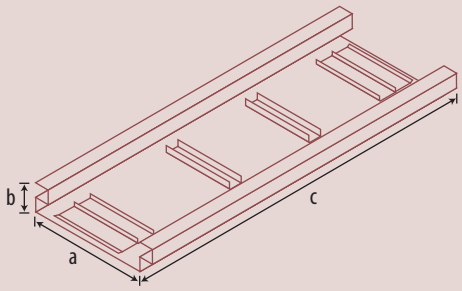


I-LINE

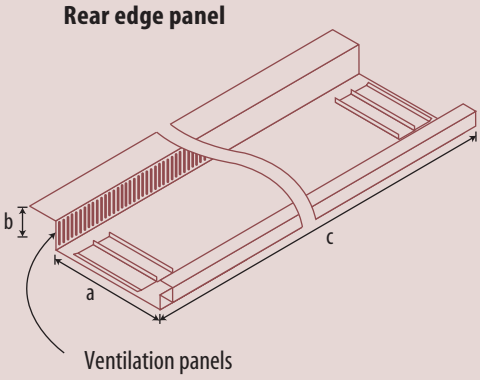


Bailey I-Line (see separate data sheet) can be fully integrated with the cassette soffit system and can be used at the eaves and throughout external elevations to evoke structural beams.

Standard panel

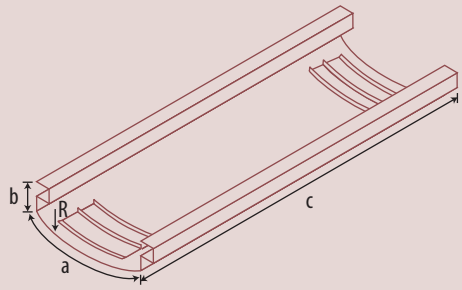


Rear edge panel

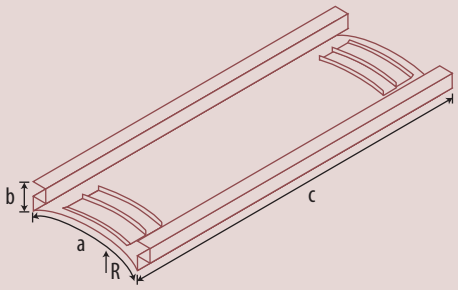


Ventilation panels
ventilation equivalent to a continuous 10mm gap
can be provided in the rear edge panel where required

Convex panel



Concave panel

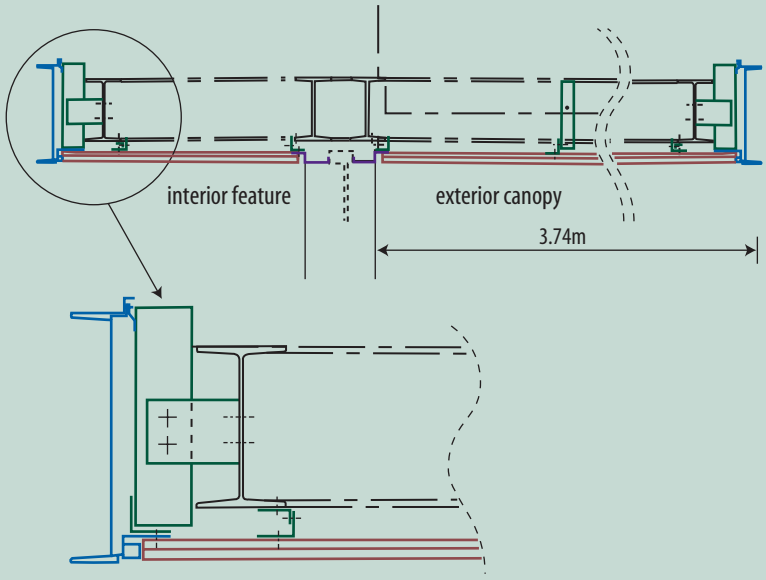


Available soffit panel sizes:			
a	b	c	R
275mm	35mm	All panels	
350mm	35mm	available	Radius from
450mm	35mm	1000mm	400mm to
600mm	35mm	1500mm	20m
800mm	40mm	2000mm	
1000mm	40mm	2500mm	
		3000mm	

BUS STATION, CHORLEY

This project uses deep, flat, horizontal soffits combined with Bailey I-Line channel feature. Both soffits and I-Line were installed internally as a feature of the main concourse as well as being used to create an external feature canopy.

With such an extensive area of soffit specifying Bailey Cassette system was key to ensuring flat soffits without visable fixings or quilting.



SOFFITS

Soffit panels are available in standard widths from 275mm to 1000mm with wider soffits being achieved by using multiple panels as desired.

The most economical is the 3000mm long panel, however alternative lengths are available so that grid lines in curtain walling or cladding modules can be recognised and maintained throughout the building's façade.

Jointing
Where panels interlock with each other or the fascia, a flush joint is achieved using completely secret fixings. This edge detail also works to stiffen the panel so that it remains truly flat. Metal thickness is varied according to the panel width and wider panels also feature intermediate stiffening ribs secretly fixed to the reverse side. Thus the ripples, quilting and fixing dimples commonly associated with lesser systems are avoided.

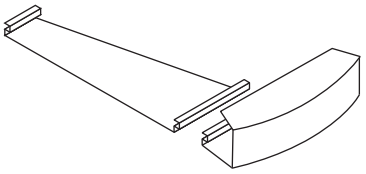
Transverse joints feature an interlocking joggle method, which avoids any danger of panel joints sagging or the need to rivet joints together. The joggle feature further stiffens the panel.

Thermal movement is accommodated in the longitudinal and transverse joint systems.

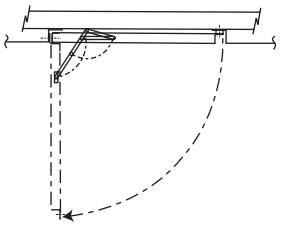
Building tolerance is accommodated within the design cross section and by use of adjustable tolerance panels longitudinally.

Ventilation
Bailey Cassette Systems can neatly and easily incorporate ventilation to meet the requirements of the Building Regulations and relevant standards. Ventilation is usually discreet being carefully located so as to prevent unsightly dust build up. Needle punching of the metal eliminates the requirement for a separate insect mesh.

Curved or faceted eaves
Tapered panels are used to create curved or faceted eaves. Front or rear edges of the panels are curved or faceted as required.

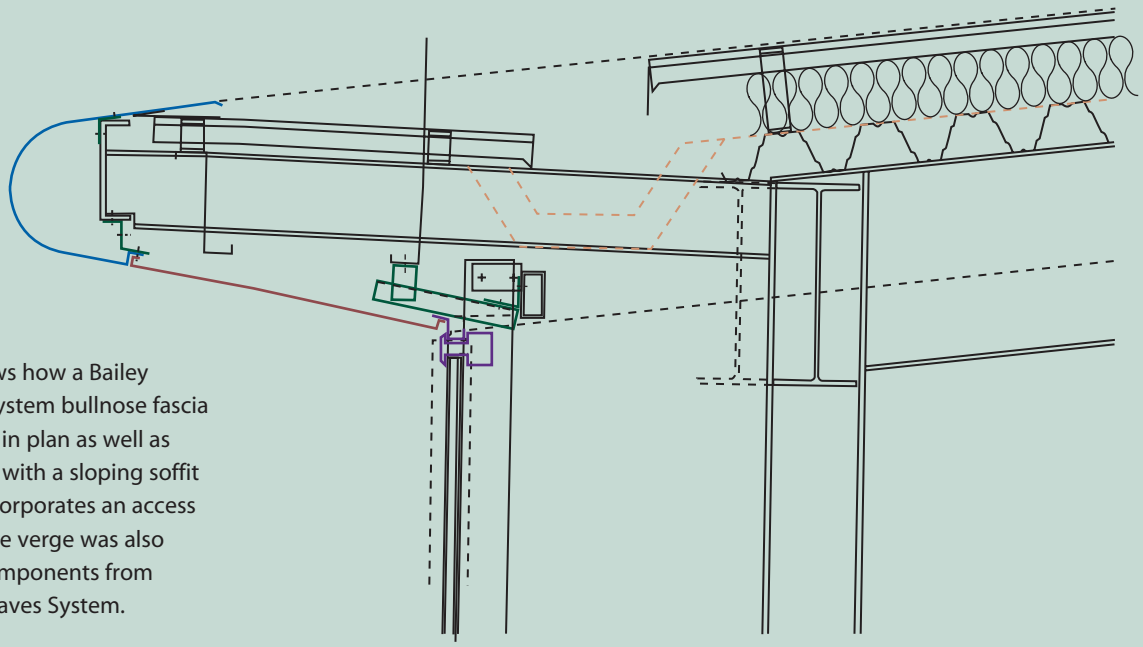


Access panels
Access to services, for maintenance can be facilitated via access hatches, which are either complete panels or inserted within panels.



PORTLAND BUILDING, CRAWLEY

RESTAURANT, CASTLEPOINT, BOURNEMOUTH

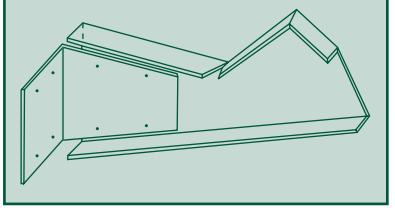


This project shows how a Bailey Cassette Eaves System bullnose fascia has been curved in plan as well as being combined with a sloping soffit which in turn incorporates an access panel. The feature verge was also created using components from Bailey Cassette Eaves System.

CARCASSING

Bailey Eaves Systems are best supported by Laser-Line accurately fabricated one piece components. Laser-Line provides the entire support for the eaves and can be aligned using laser beams or traditional methods.

LASER-LINE



As a single component, Laser-Line eliminates the need for separate rails, angles and channels. This reduces the time taken to install carcassing with a more accurate finished result.

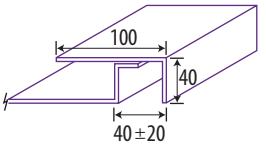
Laser-Line is normally attached to one or two points of the main building structure. From a single attachment point at the building face (via an angle bracket) Laser-Line can support a cantilevered eaves up to 900mm projection. Larger projections require at least two fixing points on the primary structure. Details are contained in the Laser-Line datasheet.

Alternatively, rails, angles, channels and cleats are available to construct carcassing on site attaching to the main building structure as required.

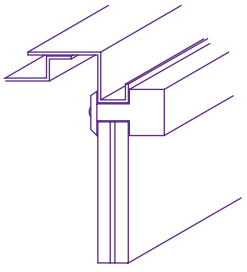
REAR EDGE TRIMS

The rear edge of the soffit usually incorporates a shadow gap to accommodate building tolerance which is masked by a closure trim. This helps speed installation and so reduces time on site.

Standard closure trims are shown here and all can incorporate ventilation where required. Feature details can also be achieved at this point of the eaves.



Where soffits are attached to curtain walling, rear edge details can be supplied as 'glaze in' where required.



RAINWATER DISPOSAL

Where rainwater disposal is accommodated at the eaves, gutters can either be concealed within the fascia or employed as an external aesthetic feature.

Bailey Monsoon membrane lined system provides a competitive and effective solution for concealed gutters. Details are contained in a separate data sheet.

External gutters

Bailey offers a full range of cast, extruded and pressed aluminium gutters and rainwater pipes in various capacities.

Traditional, modern and security downpipe designs are available. For a selection of standard bracket or direct fixed gutters and rainwater pipes please refer to the Bailey datasheets.

H31 FOR EAVES CLADDING ONLY
R10 WHEN COMBINED WITH GUTTER AS RAINWATER DISPOSAL

Combined facscia/soffit and gutter* system to .....

.....

Manufacturer and reference	Bailey, Blatchford Close, Horsham, West Sussex, RH13 5RF. Telephone 01403 261844.
Profile Reference	Bailey Cassette System. For gutter and rainwater specifications refer to relevant datasheets.
Drawing Reference	As applicable
Panel thickness	Minimum 2mm increased in accordance with the recommendations of Bailey Eaves systems.
Finish/Colour	Visible faces to be polyester powder coated to colour and gloss level selected from the manufacturer's standard range. Polyester powder coating is to be electrostatically applied at the manufacturer's in-house plant. Pretreatment of the alumimum is to produce no environmentally harmful effluent and conform with Qualicoat standards. Test samples are to be retained and results submitted to the architect if requested. Tests to be applied as a minimum are: 1 1000 hour salt spray test 2 Impact test (0.908kg from 0.25m high) 3 Permeability test (2 hour pressure cooker) 4 Adhesion test (2mm cross hatch) 5 Flexibility test (20mm mandrell) 6 MIBK cure test *(As standard only visible faces are polyester powder coated. Some severe industrial or marine locations may require coating to reverse sides of some components. Consult Bailey technical department in these situations.)*
Accessories	Factory fabricated fascia corners, stopend, transitional flashings, rear edge trims, etc as required.
Supports	To be fitted to Bailey Laser-Line carcassing system at centres recommended by Bailey.
Fixing	All fixings to be completely concealed. System to be fixed using aluminium and stainless steel fixings as recommended and supplied by Bailey Eaves Systems.
Special Features	The system is to fully allow for building tolerances to be overcome on site without the necessity to purpose manufacture components to site dimensions. All factory fabricated components to be fully linished and dressed prior to polyester powder coating. Panels to be stiffened to provide flat and acceptable flat surface.
Method of Jointing	Fascias to be jointed using internal profiled butt strap with 2mm to 3mm expansion gap. Soffit panels to be jointed with Bailey Interlocking End Joint detail with concealed fixing. Joints to be secured to the rear face of panels without any exposed or visible fixings on the surface of the panels.
Modulation	Specific requirements for modulation in conjunction with building grid layout to be entered here.
Ventilation	*(Only include this section if ventilation is required via the eaves system).* Ventilation to be provided as an integral part of the eaves system. Vents to be in a concealed location and to require no separate mesh. Ventilation to give the equivalent to a 10mm* or 25mm* continuous gap.
Design	Installation subcontractor to provide a full design service. As a minimum, full working drawings are to be provided for architect approval prior to manufacturer. These shall include: a) Reflected soffit layouts showing all joints, junctions, mitres etc suitable cross referenced to the relevant section. b) Section of each different detail including method of support from structural elements and fixings to be used. Each component to be numbered. c) Large scale details and where required isometric details or particularly awkward or complex junctions, corners, barge boxes etc.
Packaging	All components are to be fully wrapped and protected. Bundles should be no larger than can be handled by one person to ensure transfer to point of installation in original packaging. Heavy items to be marked with appropriate warnings and approximate weight. Fascia and soffit components to be labelled in accordance with part numbers given on working drawings.
Installation	Entire fascia, soffit and rainwater system together with all sub-carcassing work is to be supplied and installed by one subcontractor selected from the Bailey list of recommended subcontractors.

* Delete as appropriate

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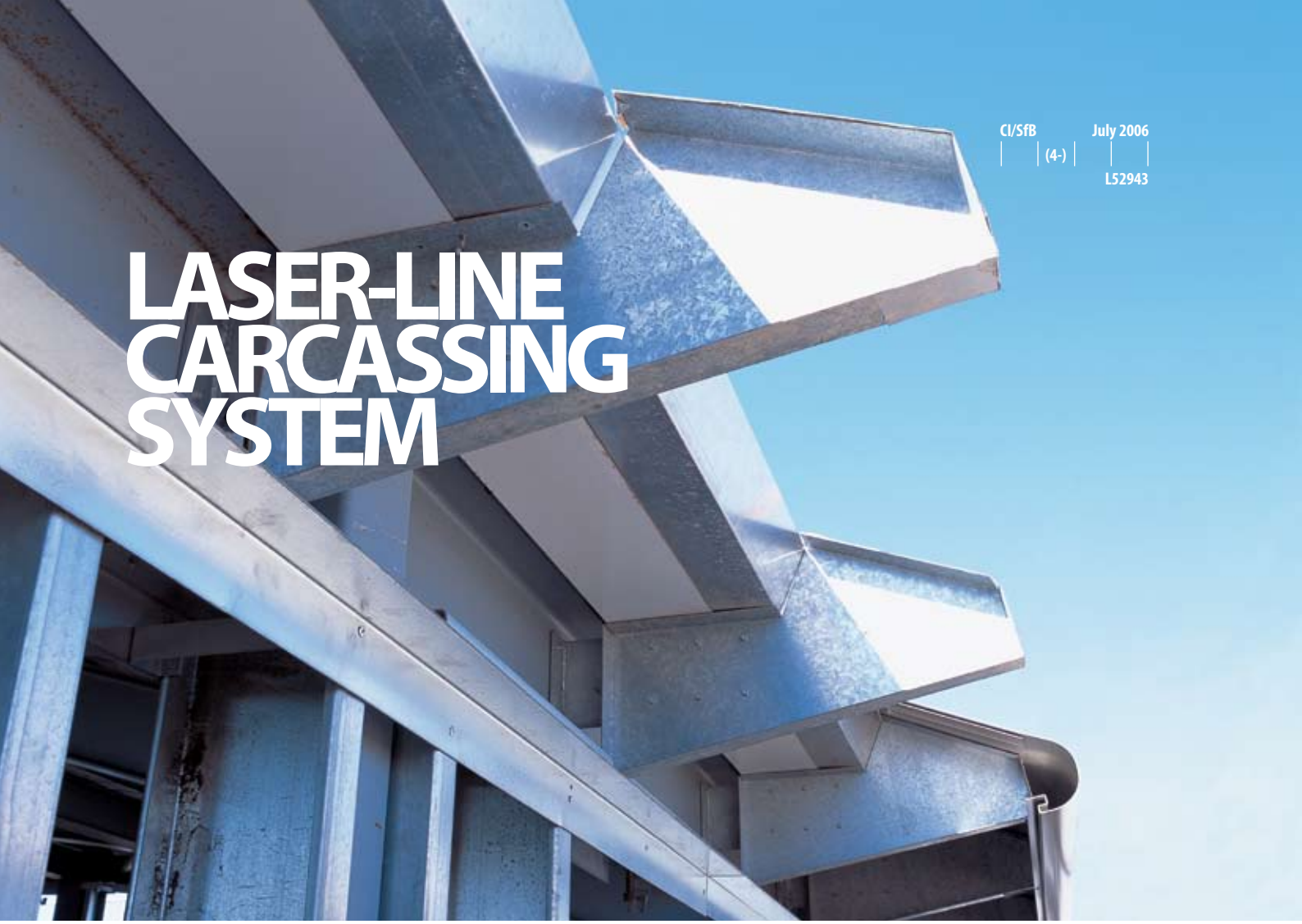


LASER-LINE CARCASSING SYSTEM

BAILEY LASER-LINE BRINGS THE BENEFITS OF MODERN SYSTEMISED BUILDING METHODS TO CARCASSING, INCREASING SPEED, ACCURACY AND ECONOMICS OF EAVES INSTALLATION

The creativity and impact made possible by specifying Bailey architectural systems has been extended by the introduction of Bailey Laser-Line.

Laser-Line is an accurately fabricated one-piece component that can be aligned using laser beams or traditional methods.

Using laser beams allows complete elevations to be aligned quickly and straightforwardly and with far greater accuracy than with traditional measurement. Laser-Line's strength and light weight means that the carcassing brackets fix directly to the structure at as few as two points. Dependent on site conditions, Laser-Line can be installed using either mobile or standing access.

As a single component, often for the entire eaves installation, Laser-Line eliminates the use of separate rails, angles and channels, thus reducing the time taken to install carcassing and removing the problems of aligning separate components.

With the introduction of Laser-Line as part of it's Impact eaves system, Bailey has again provided an innovative solution that helps architects to create interesting buildings and contractors obtain better site practice.

As Laser-Line offers accuracy and speed of installation the result is effective and measurable economies of installation.

BAILEY

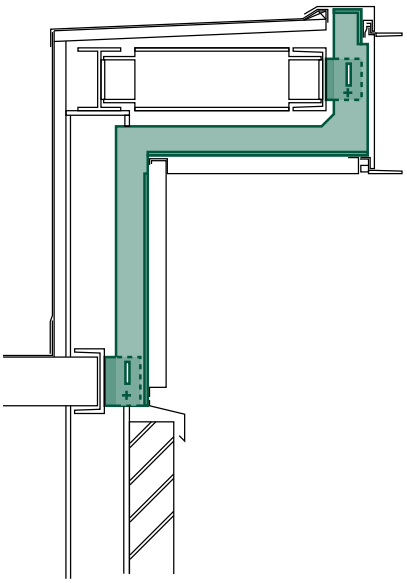
BAILEY LASER-LINE

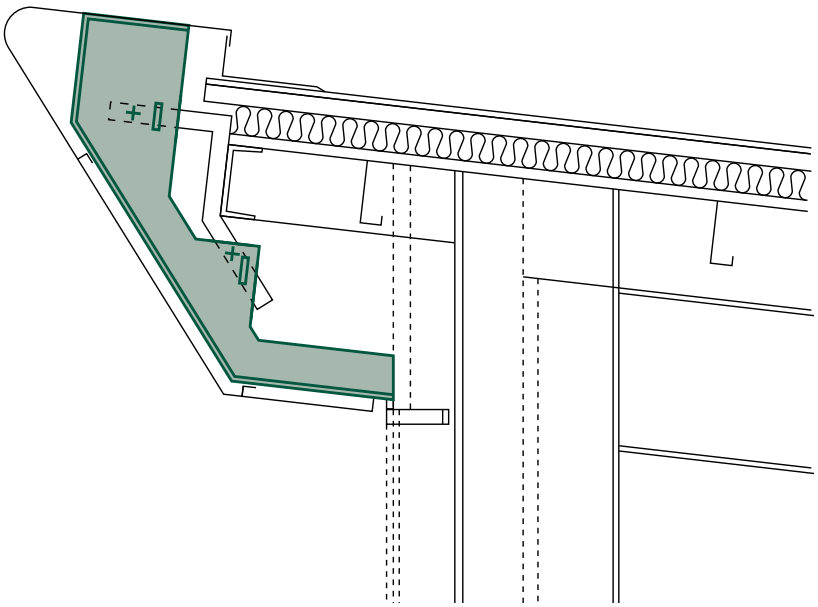
Laser-Line is fabricated from aluminium or galvanised steel. Thickness and centres are determined according to the size and nature of the eaves design and are backed by calculations and loading tests from both live and dead loads.

Each carcassing component consists of a one-piece support accurately punched and folded from sheet metal under stringent factory conditions. Because manufacture takes place off site, accuracy of each component is more easily obtained, making overall on-site accuracy easier to achieve.

Laser-Line can be used as a primary carcassing system fixed directly to the structure or as a secondary system being taken off external steelwork depending on the extent of the eaves projection. Laser-Line can be installed using both mobile and standing access.

Most Laser-Line systems are fabricated in aluminium which has the advantage of reducing intermetallic contact. Generally, if fixing to steel, isolating tape is only required at two points of contact for each bracket.





Once the Laser-Line carcassing has been installed other Bailey eaves systems components are simply and quickly fixed to complete the soffits, rainwater systems and eaves features.

Bailey Laser-Line should be selected in combination with other Bailey Impact Eaves products such as I-Line, Bailey Cassette or V-Joint soffit systems and Bailey Rainwater Systems to create complete eaves features to meet both aesthetic and functional requirements. Full information and specification details on Bailey Impact Eaves are in the relevant datasheets and in the Bailey technical handbook.

Bailey Laser-Line is designed to combine low maintenance with an expected life of at least 25 years in most environments.

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