

THE WHITE SITE



AALBORG WHITE®

December 2004/4



New traffic roundabout

Collaboration with decision-makers

Jurmala – sculptures in concrete

Making Polish cities more attractive

Österängskyrkan, Jönköping

Blue and red coloured special, soft-casted concrete flagstones – all based on AALBORG WHITE® cement was produced to the first roundabout of its kind. Read more inside the Newsletter.



AALBORG WHITE®

AALBORG WHITE® is white cement – made from nature's own raw materials, refined by supreme technology, and used for beautiful and functional solutions.

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Contents:

Page 2

**Close collaboration
with decision-makers**

Page 3

New traffic roundabout

Page 4

**Making Polish cities
more attractive**

**Italian Cementir
won the battle of the
Aalborg Portland Group**

Page 5

**Jurmala
– sculptures in with concrete**

Page 6

**Effect of additives on
AALBORG WHITE®**

**AALBORG WHITE® based
Self Compacting Concrete**

Page 7

**Renovation of a dynamic
and expressive idiom**

Keep your eyes "WHITE" open

Page 8

**SWC enters into
an important alliance**

And the winner is...



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Close collaboration

– with decision-makers, manufacturers, and clients

Experience has shown that networks and close collaboration between different professions promote developments in the use of white concrete. Mutual understanding and a frank dialogue break down barriers and provide opportunities – for all parties. The most recent results of this in connection with infrastructure are clear. They have been demonstrated in tangible projects, one of which, a new concept for traffic roundabouts with applications in white and coloured concrete components, is described in the article above. Other projects that can be mentioned in this connection are:

- The majority of the stations on the new ring line in Copenhagen were constructed with the help of white concrete.
- White concrete crash barriers were specified in connection with renovating the new M3 circular motorway around Copenhagen.

In the close collaboration between one of the major firms of consulting engineers in Denmark, COWI A/S, and Aalborg Portland, COWI has mainly functioned as a technical resource, but the firm has also seen the opportunity to create positive coverage of its own business in connection with the use of white concrete. The result was a series of articles on white concrete in the latest edition of "COWI feature", published in Danish in 11,500 copies, which is also translated into English and sent to all COWI's offices and clients throughout the world. Many of the articles can be seen on COWI's website www.cowi.dk.

New traffic roundabout in a safe, attractive design

For many years the strategy of the Danish Road Directorate has been to create attractive, safe roads. The use of striking white surfaces with a high degree of light reflection is an important element in the achievement of strategy objectives.

Travelling should be an aesthetic experience

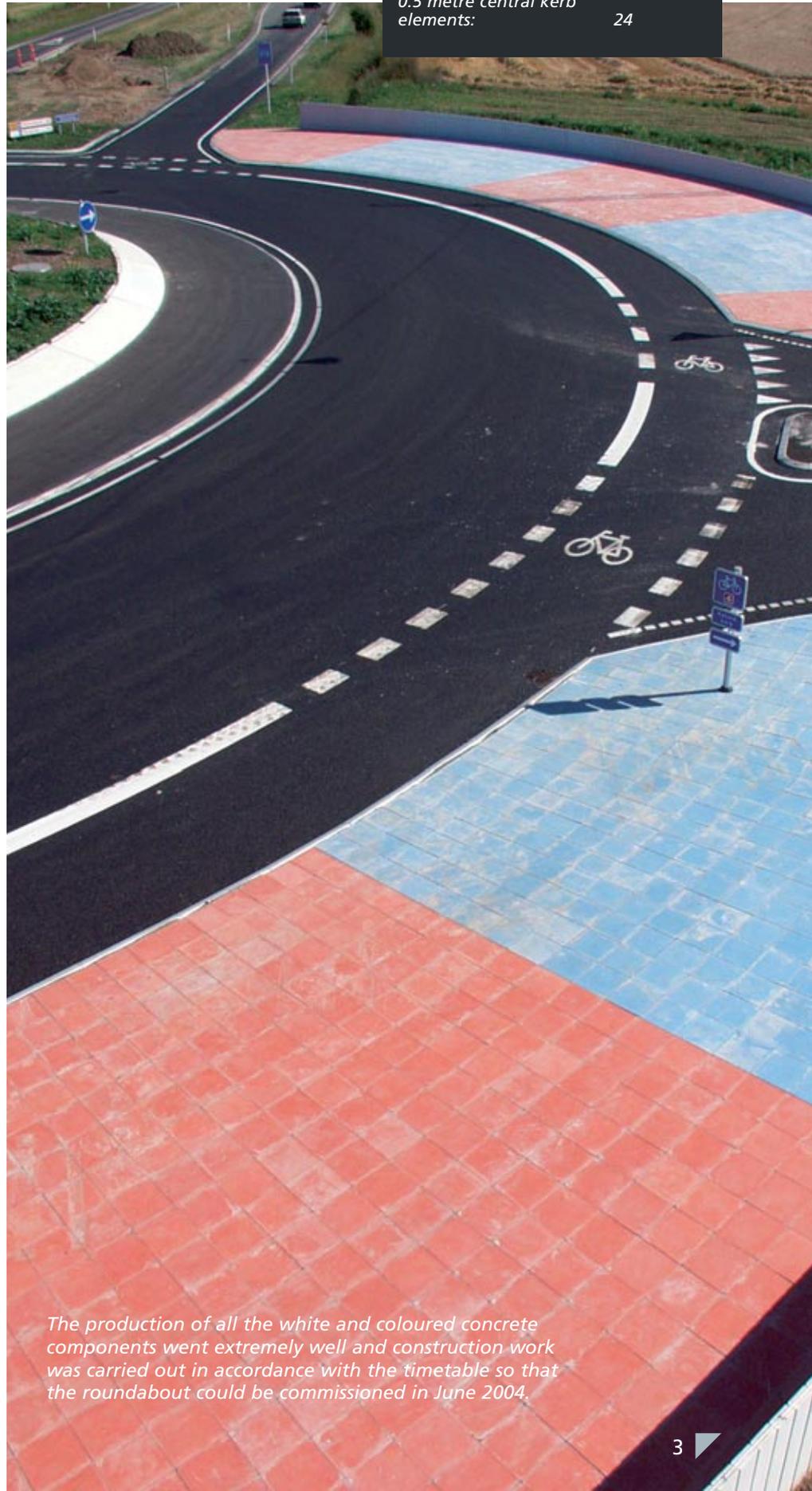
In recent years many new traffic roundabouts have been constructed in Denmark, each of which is a distinctive feature of the physical structures that roads constitute in the interplay with their surroundings. Travelling from home to work, for example, must not only be quick and safe, it should also be an aesthetic, natural experience that leaves a pleasant memory of the working day. A roundabout should therefore be clearly delineated and easy to understand and interpret – both in daylight and in darkness, as well as in sunlight and rain. The design of the horizontal and vertical surfaces must create a unity, which complements its surroundings and stands out due to its physical expression. It must be possible to decode at a long distance, but must also function safely when other road-users are met within its circle.

Maintenance-free surfaces

In collaboration with the AALBORG WHITE® Technical Team and Dragsholm Beton ApS, the Danish Road Directorate has developed a new concept for roundabouts that incorporates the extensive use of new concrete components based on AALBORG WHITE® cement. The first roundabout of this type has now been constructed at Jyderup in Denmark. The new, white concrete components were used primarily to build the 0.5 metre high special edging elements around the central island, and a 1.25 metre high outer wall around the roundabout. The tops of both components are equipped with fibre-optic lights to increase road safety. The outer verge areas are seven metres wide to create space, tranquillity, and clarity. The area is divided by alternating blue and red coloured special, soft-casted concrete flagstones – all based on AALBORG WHITE® cement to provide optimum colour and quality. The verge kerbs were also soft-casted and specially manufactured in white concrete specifically for this project to ensure perfect, maintenance-free surfaces.

Facts on the roundabout:

White concrete profile slabs for the outer wall:	850
White verge edging:	420 metres
Red and blue concrete flagstones:	1,000 m ²
0.5 metre central kerb elements:	24



The production of all the white and coloured concrete components went extremely well and construction work was carried out in accordance with the timetable so that the roundabout could be commissioned in June 2004.

Making Polish cities more attractive



An example of ground tiles based on AALBORG WHITE®, marble and granite aggregates in combination with clinker brick.



An example of ground tiles based on AALBORG WHITE®, marble and granite aggregates in combination with ground black and red tiles.

Since antiquity, people have been using stone to make tiles, panels, and slabs for pavements, floors, and walls. Sometimes, the material used was marble, granite, or alabaster. This continues today, but with the high costs of mining and environmental protection, small concrete elements with different surface structures can be used as a supplement. With the help of techniques such as grinding, hammering, shot peening, sand blasting, and washing, it is possible to create surfaces with a high aesthetic value.

Usually, marble, granite, basalt, and quartz aggregates up to 40 mm in size are used to make decorative concrete

elements. By mixing these materials with AALBORG WHITE® cement it is possible to create products that are very strong by comparison with natural stone.

Aalborg Portland Polska collaborated with TARAS (Marian Rozpendkowski) – a manufacturer of small concrete elements – to make a number of such products, some of which are presented in this article.

Washing is a process where the tiles are scoured by a high pressure water jet in order to remove cement paste and expose the aggregates.

“Washing is an alternative way of treating surfaces, which is becoming more and more popular in Poland,” says Marian Rozpendkowski. “AALBORG WHITE® cement provides many opportunities to make a wide range of products with different combinations of coloured aggregates, and the stability of the cement always ensures highly durable products,” explains Marian Rozpendkowski.

As the Polish economy develops, public and private investors will become increasingly focused on the aesthetic appeal of their properties. This is one way to encourage visitors to come to visit Polish cities, a factor that is particularly important at holiday resorts, where many people work in the tourist industry. We believe that products based on AALBORG WHITE® have a great future in Poland because they make our country more attractive, and will continue to do so in the years to come.

Italian Cementir won the battle of the Aalborg Portland Group

During October this year, Cementir's acquisition of the Aalborg Portland Group was approved by the European Competition Authorities. Thereby, the acquisition was finally closed between FLS Industries and Cementir and effective as of 1 November. In the Aalborg Portland Group we are pleased about the new ownership and regard it as the best solution for our Group.

Strategically, the geographic fit is perfect as Cementir's strong position in the Mediterranean Basin will be completed by the global position of AALBORG WHITE® within white cement. Cementir's objective is to continue the positive development of the Aalborg Portland Group in corporation with the present management teams.

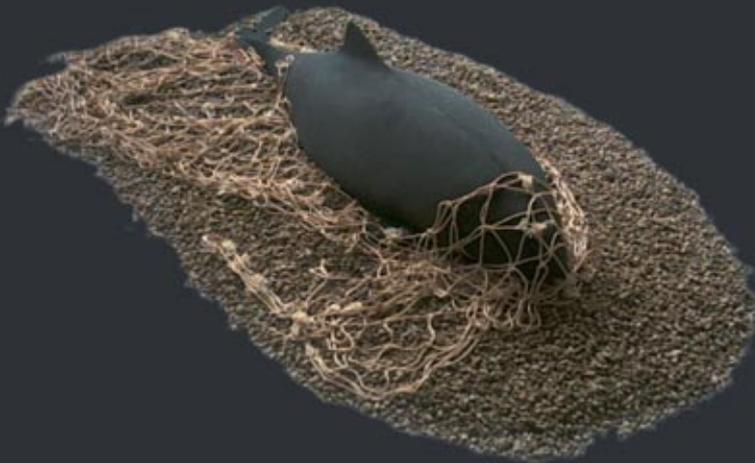


Chairman of Aalborg Portland AIS, Mario Ciliberto.

Jurmala

Our key customer in Latvia (Sakret) has opened a modern dry mixture factory in the Riga region, where it is now the biggest and best equipped of its kind.

A competition for artists was organised in Jurmala to mark the occasion and Latvian artists worked for several days with white concrete, which was a material new to them. The sculptures they created are now being exhibited at the new Jurmala City Museum.

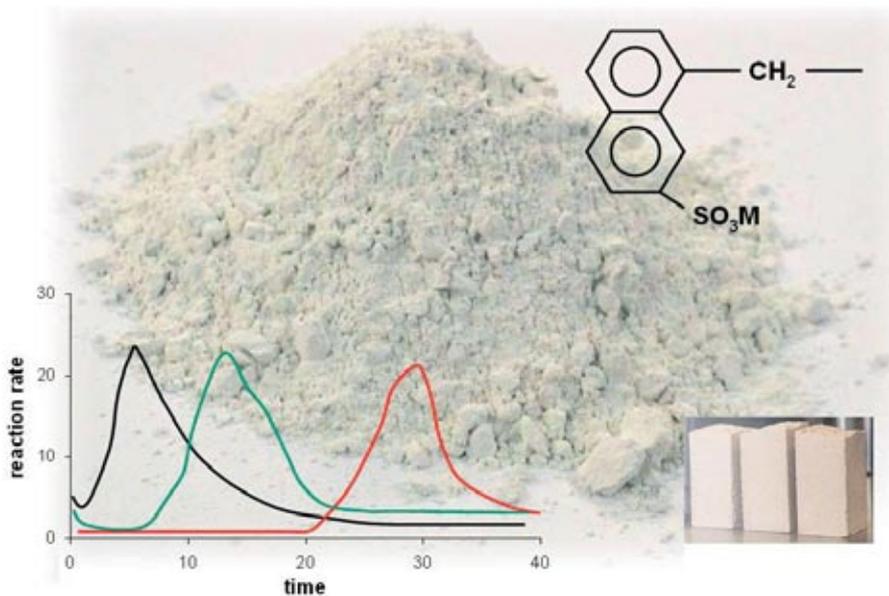


The event received a great deal of attention and was covered by several Latvian TV channels as well as newspapers. Aalborg Portland supported the event with a prize for the creator of the most attractive sculpture.



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Effect of additives on AALBORG WHITE®



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AALBORG WHITE® based Self Compacting Concrete

Self Compacting Concrete, or SCC, is the concrete material of the future. Avoiding vibration improves the working environment, and heavily reinfor-

ced cross-sections or complex geometrical designs can be cast with ease. SCC is the next step in concrete evolution.

The successful application of SCC – as with any other new product – requires knowledge of the strengths and weaknesses, possibilities and limitations of the material. With AALBORG WHITE® this know-how has now been made available in two folders: one in English (Self Compacting Concrete Based on AALBORG WHITE®) and one in German (Selbstverdichtender Beton auf der Basis von AALBORG WHITE®).

The folders contain guidelines on how to convert existing grey cement-based SCCs to working AALBORG WHITE® based SCCs. The folders also describe how to develop AALBORG WHITE® based SCCs from conventional concrete mixes, as well as sample mix designs. The guidelines are based on the results of a recently completed research project at RDC.

AALBORG WHITE® therefore makes it possible to combine easy and environmentally friendly production with beautiful white or brightly coloured structures. The folders can be downloaded or ordered in hard-copy from the product information downloads section at www.AalborgWhite.com.

Two news folders are based on the results of a recently completed research project at RDC.



Renovation of a dynamic and expressive idiom

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Österängskyrkan in Sweden was designed by architect Johannes Olivegren and completed in 1961. The church is regarded by the Swedish Keeper of National Antiquities as "a church of high architectural and artistic quality. The dynamic and expressive idiom can be traced to the international style of the 1950s and 1960s, which is rarely seen in Swedish church architecture."

Plans for renovating the facade were initiated in 2000. Inadequate encapsulation of the reinforcement had caused corrosion that resulted in both vertical and horizontal cracks in the concrete. Damage which could have been caused, for instance, by incorrectly placed reinforcement, frost damage, etc. Consequently, the problem was an issue of both aesthetics and durability.

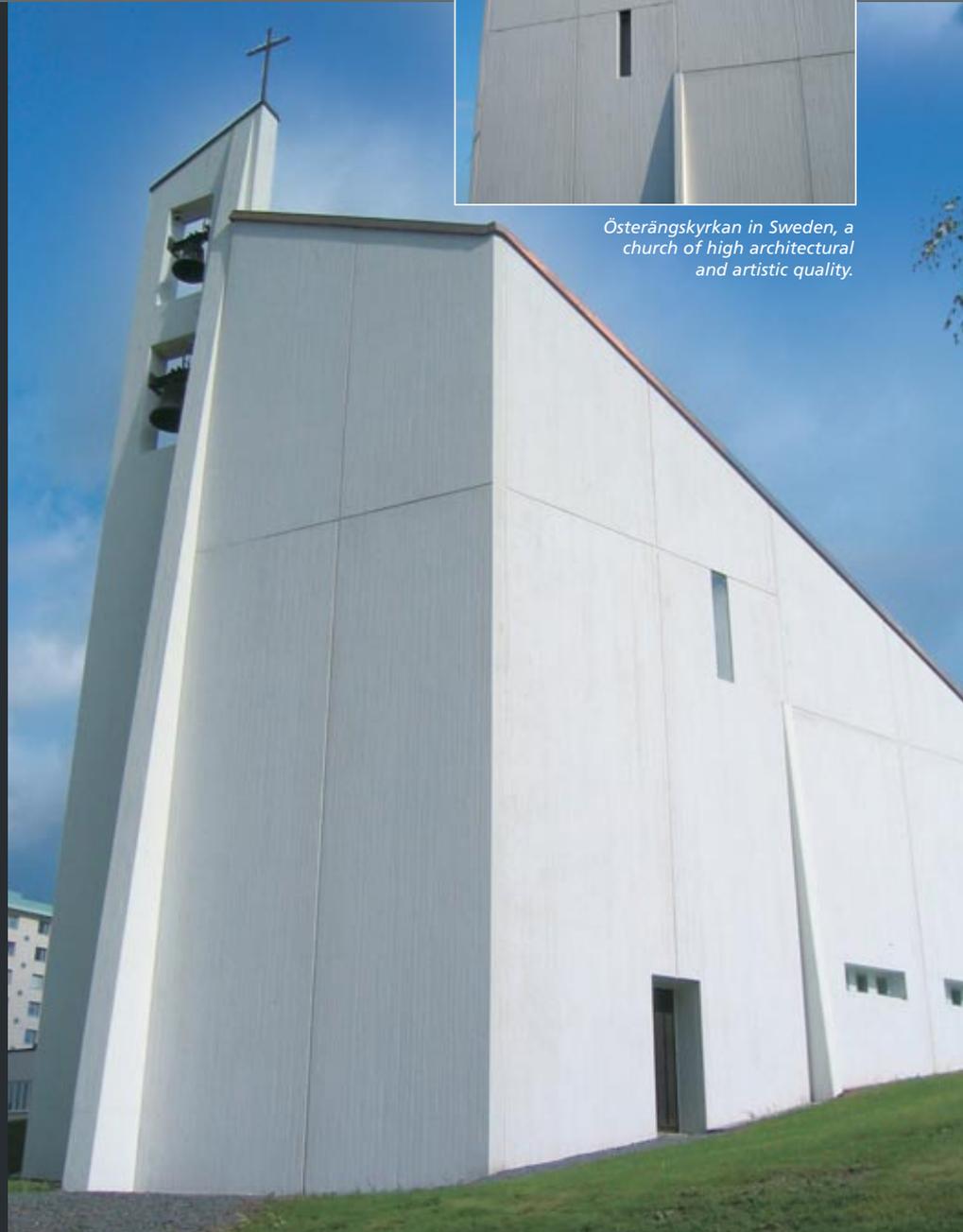


In addition to recreating the original appearance of the church, precast wall panels based on AALBORG WHITE® cement were chosen to minimise the need for future maintenance and the cost of painting, etc. The panels were cast in special wooden moulds made of rough planks.

From the beginning, the project owner was very determined and had clear requirements when it came to the final results. To ensure the success of the project for all parties, Ulricehamns Betong AB and their customer engaged in a frank dialogue throughout the process, during which they discussed risks and challenges. All of which ensured a final result as close as possible to the original facades of the church.



Österängskyrkan in Sweden, a church of high architectural and artistic quality.



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Keep your eyes "WHITE" open

We are always looking for projects that demonstrate the believable and unbelievable potential that white cement offers.

If you inform us about a project in which AALBORG WHITE® cement has been, is being, or will be used as an important component, and we choose to use this project for

further reference, we will reward your effort with a quality digital camera.

The article to the right on Österängskyrkan in Sweden originated in a suggestion sent in by Fredrik Gustafson from Ulricehamns Betong AB in Sweden, who will receive one of these cameras.

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Sinai White Cement Co. enters into an important strategic alliance

To date, products from the factory in Egypt have been shipped to countries around the Mediterranean from El Arish, while products for countries around the Red Sea have been shipped from harbours south of the Suez Canal, but unfortunately from the wrong side of the canal in relation to the factory.

Small ferries are used to cross the canal, but the increase in traffic on the canal and a reduction in the number of ferries has meant that lorries have sometimes had to wait from one to two days to get across. This situation was a threat to our major sales of clinker to Saudi Arabia

and, hopefully, large consignments of cement through the Red Sea in the future.

It was therefore a red-letter day in September this year when Sinai White Cement Co. (SWC) could sign a contract with Sinai Manganese Company, a state-owned enterprise, to use their private harbour for shipping products. This is the first time they have entered into such a contract, and SWC has the sole right to use the facility, which will eliminate waiting time. The harbour is located at Abu Zenima on the Sinai Peninsula.



Chairman of Sinai Manganese Company Mr. Abou Eleyoun Hassan and Managing Director at SWC Mr. Flemming Oest.

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And the Winner is ... – Aalborg White Cement Australia!



Picture above: Heritage Stone Chimneys, Illawong (ornamental).

Picture below: Meriton Apartments, Chiswick (town house development)



4. Single dwelling block-work.
5. Commercial & public building block-work.
6. Ornamental work.

There were 46 different entries across these six categories for the 2004 awards. Aalborg White Cement Australia (AWCA) is proud that out of this total, four awards were presented in which their Bricklayer's White Cement was used. BWC was released on 1 October 2003 on the New South Wales market. It is quite an achievement to represent around 10% of the work that received an award after just one year on the market. The entries were:

1. Heritage Stone Chimneys, Illawong (ornamental).
2. Meriton Apartments, Chiswick (town house development)
3. Meriton Apartments, Rhodes (apartments)
4. Macquarie Park Chapel & Crematorium at Macquarie Park (Merit Award winner, category 3 commercial and public buildings).

All entries were submitted by the brick and block manufacturers as representative of some of the finer projects their products were used in during the year. With the growing acceptance of Bricklayer's White Cement, AWCA is looking forward to even more awards for excellence in 2005.

The Masonry Contractors Association of NSW (MCA) holds an awards dinner for Brick and Block Laying excellence every year. There are six categories in the awards:

1. Single dwelling brickwork.
2. Medium density residential brickwork (apartments & town houses).
3. Commercial & public building brickwork (hospitals, schools etc).