



Expert Witness



Worshipful
Company of
Pavement



Institute of
Concrete Technology



WELCOME

Dr ALLAN DOWSON PhD, BA, MICT

“The urban tomorrow in the cities of Italy”.

“L’urbanistica di domani nelle città d’Italia”.



Allan Dowson Consulting

Recognised as one of the world's leading experts in precast concrete and natural stone products

Today's presentation

Concrete Block Paving

Benefits

History and Development

How it works

Requirements

Applications

Traffic Calming Devices



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The benefits of Concrete Block Paving

Strength

Durability

Low maintenance

Flexibility

Longevity

Whole life costings

Reinstatement

Slip/Skid

Aesthetics

Ease and speed of laying

Colour

Shape and texture

Design scope

Environmental harmony

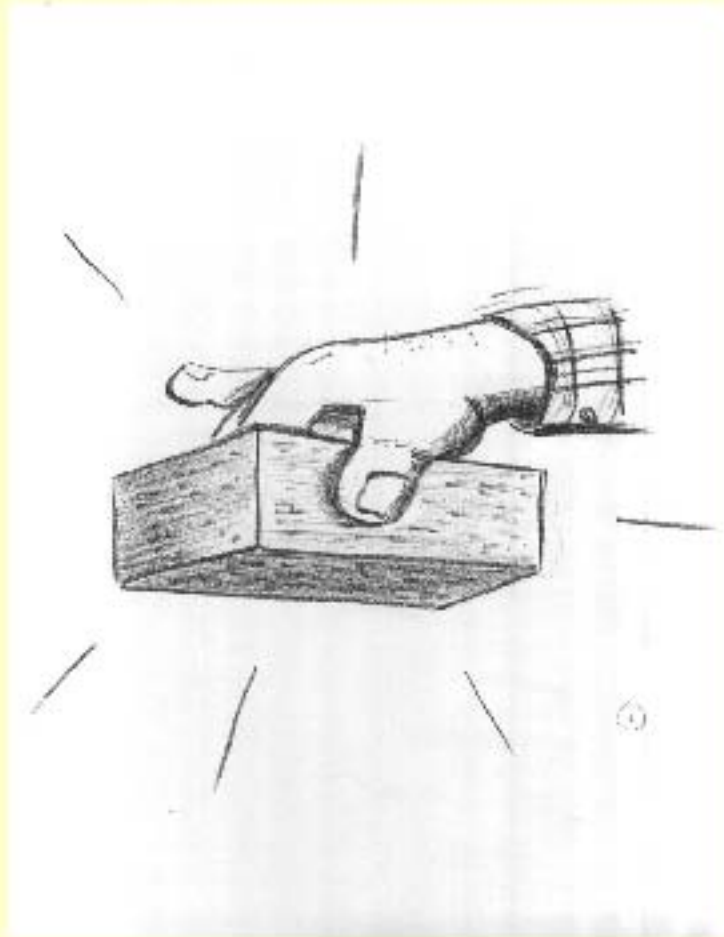
Compliments architecture



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STATE OF THE ART



Concrete Block Paving



Allan Dowson Consulting

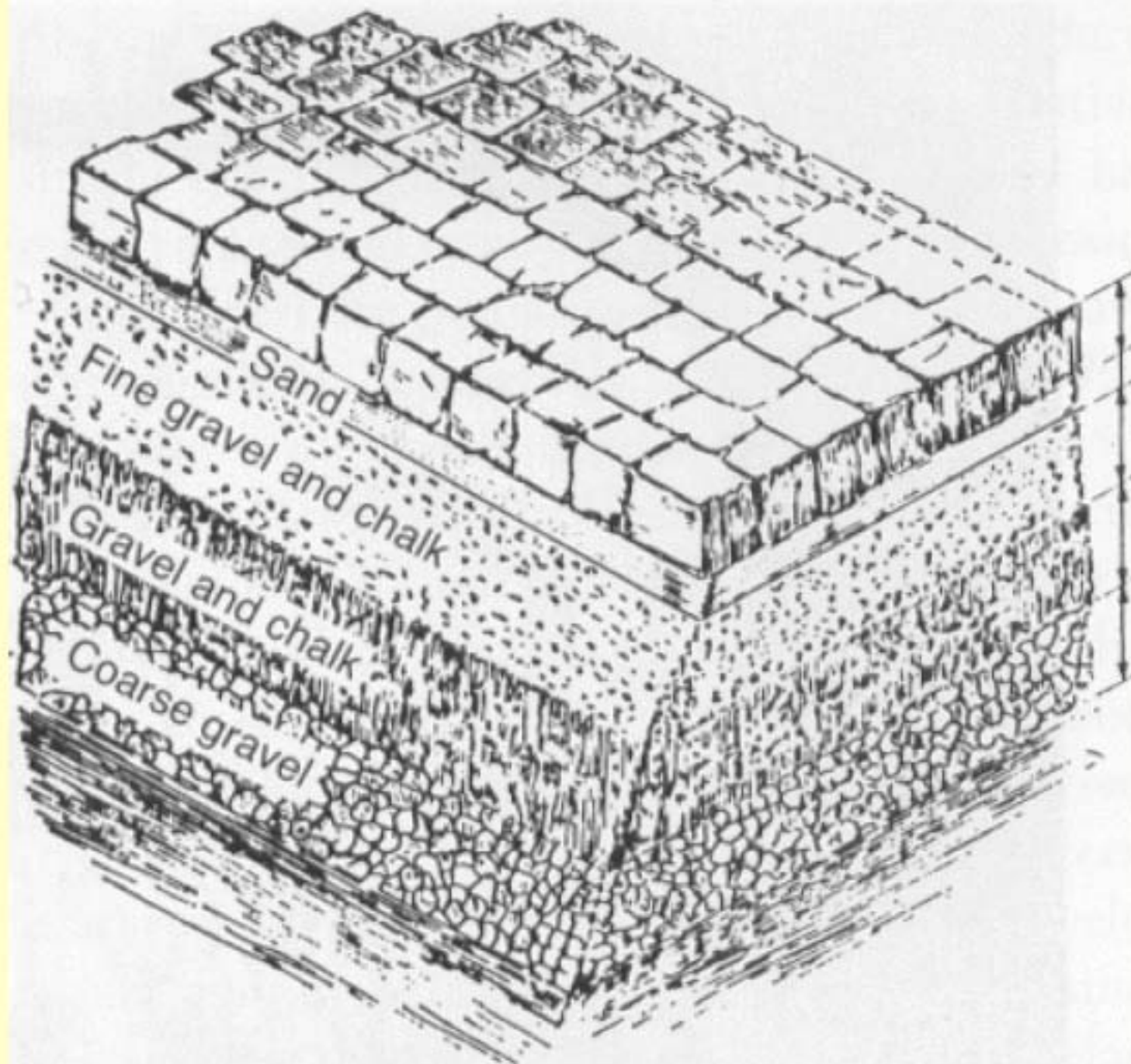
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History





The principles of pavement construction developed by the Romans resulted in pavement that is still with us today. This Roman road was built in England.







UK Usage

1978 Sales 30 000 m²

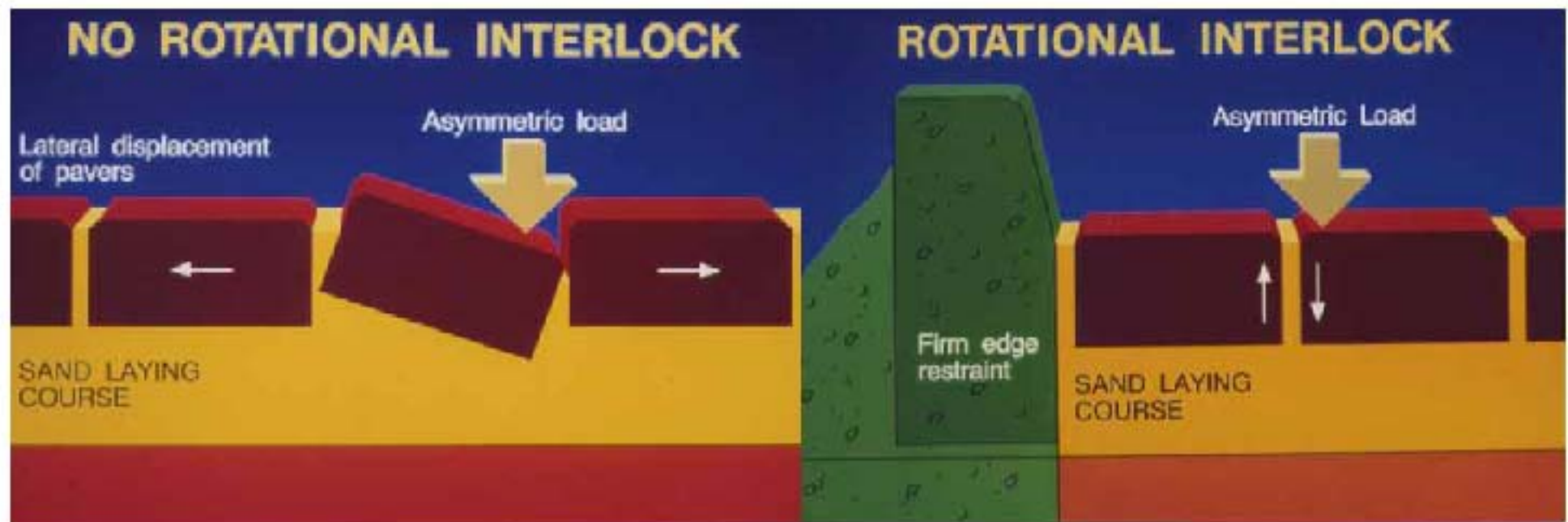
UK Usage

1978 Sales 100 000 m²

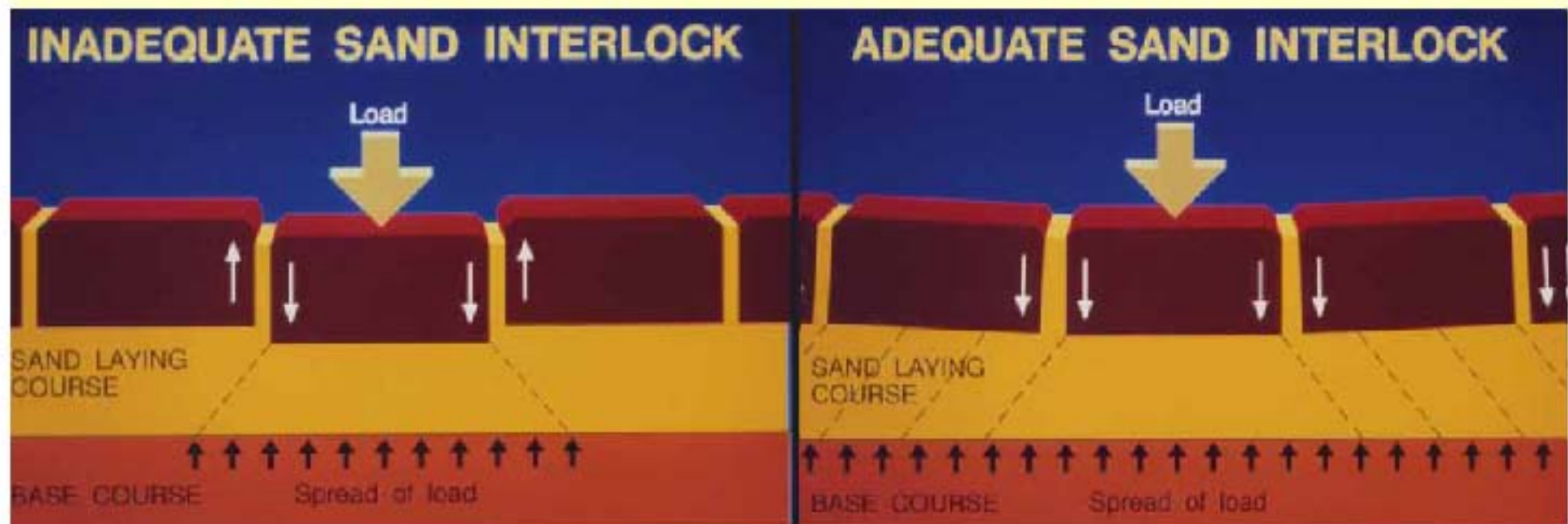
2007 Sales 24 million m²

TYPICAL CROSS SECTION OF ROADWAY





HOW IT WORKS

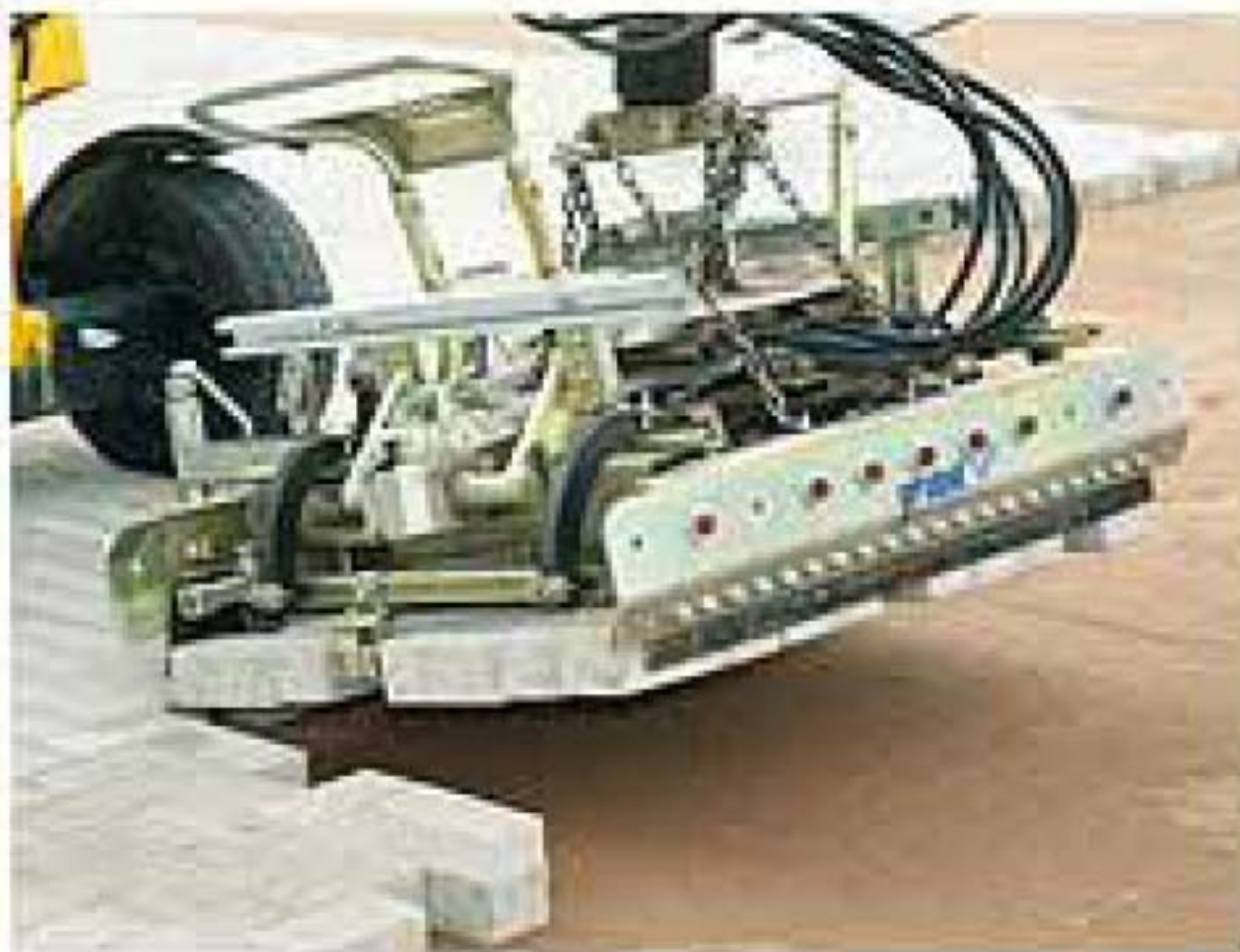




Load Spreading Interlocking Concrete Pavement









Chelmsford (A 414)
Chipping Ongar A 128

Brentwood
Kelvedon Hatch A 128
Industrial Estates

Secret Nuclear Bunker

EN 1338
concrete paving
blocks - Requirements
and test methods

Product requirement

- Strength
- Abrasion resistance
- Durability
- Dimensional consistency
- Slip/Skid resistance

Applications

Examples of Pedestrian and light traffic





Applications

Examples of trafficked roads

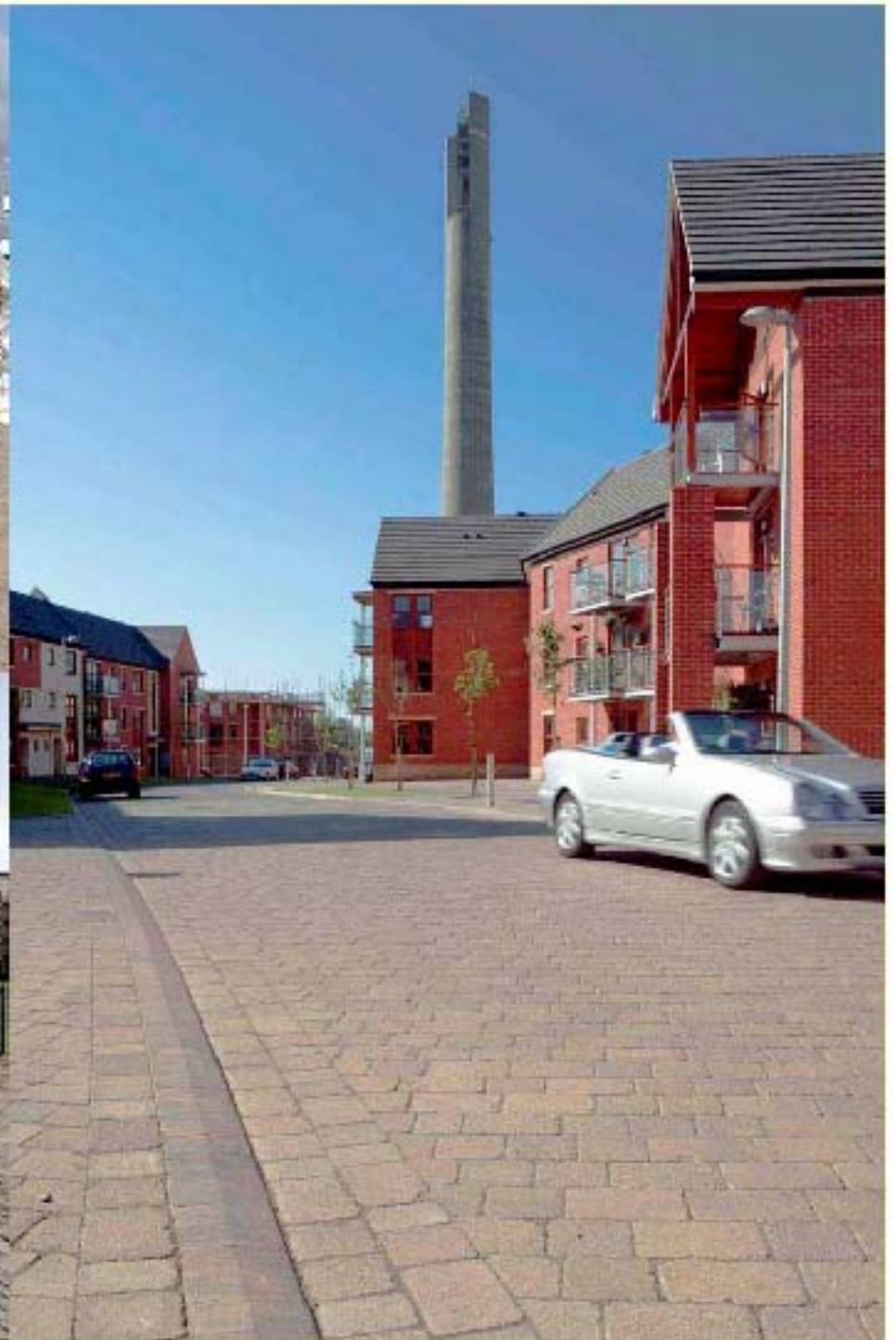
















Euston Bus Station



Euston Bus Station 10 years later











Applications

Examples of commercial development





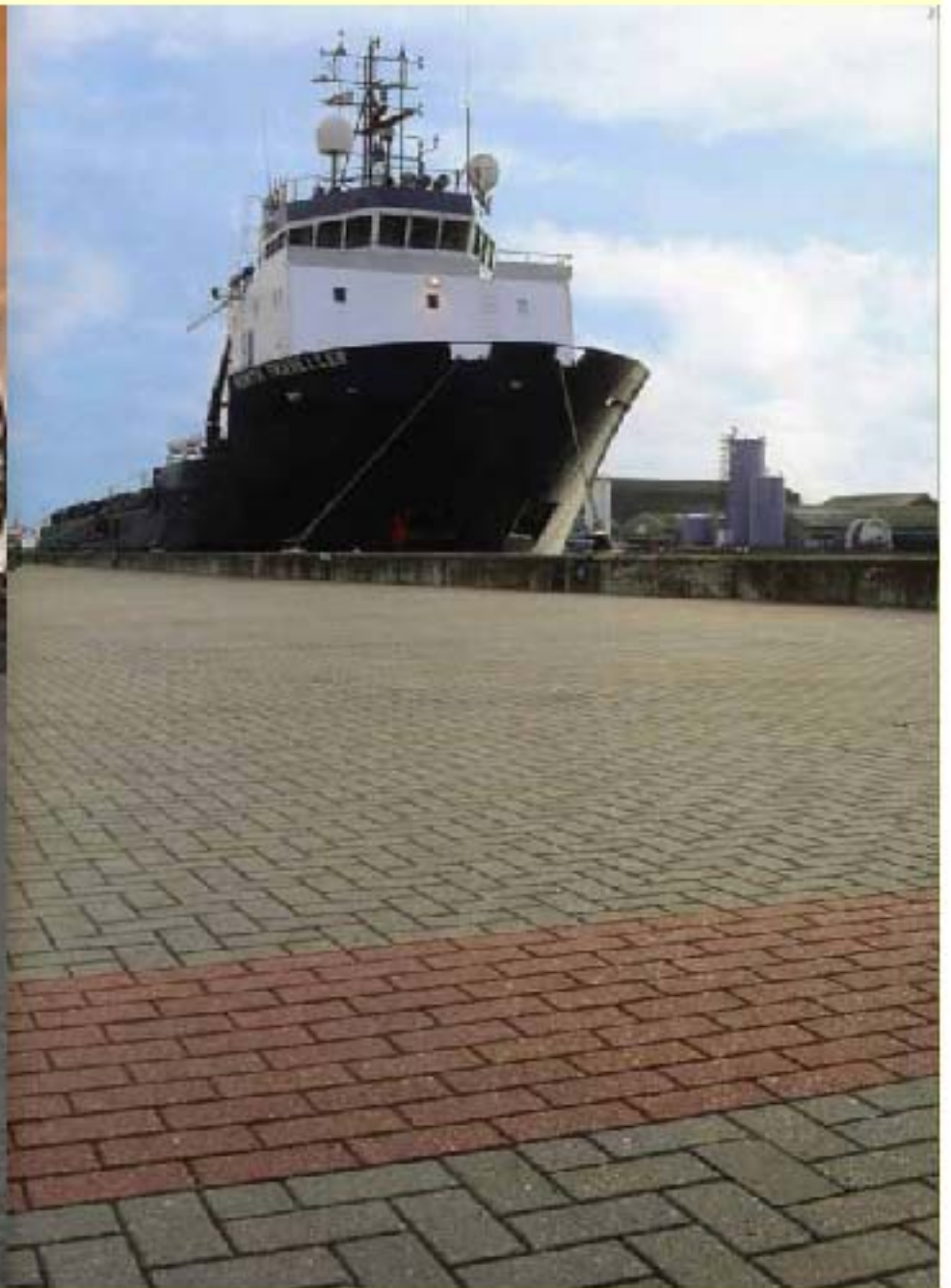


Applications

Examples of Docks and Airports













Traffic Calming



Traffic calming devices are used to improve road safety and the local environment. They work by controlling drivers' speeds to match local conditions

Calming devices include:-

road humps

speed cushions

build-outs

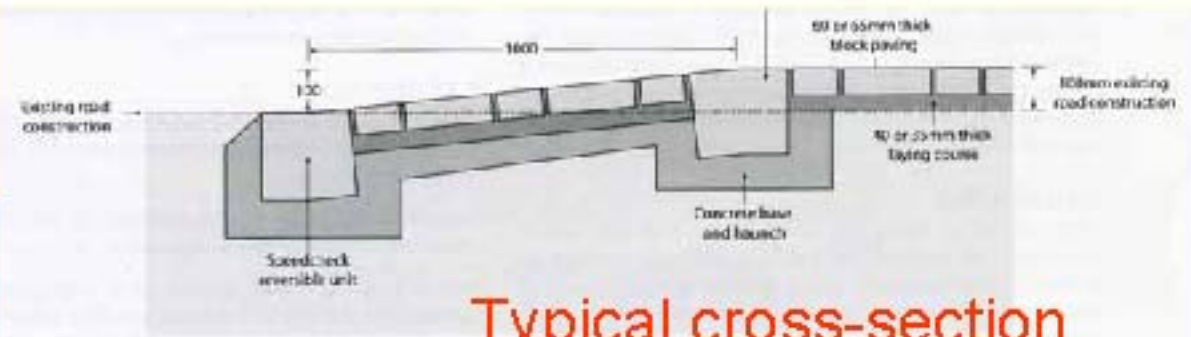
chicanes

rumble strips

traffic islands



Road Humps









Speed cushions

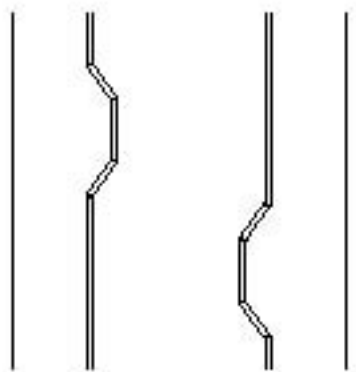


Build out



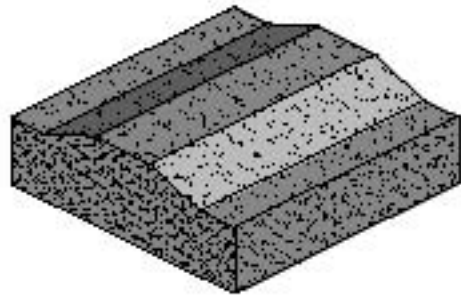






Chicane





Rumble Strips



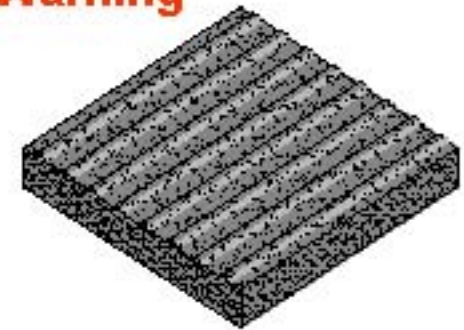
Traffic island



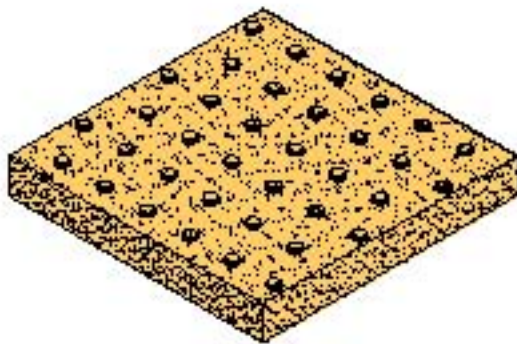
Blister paving



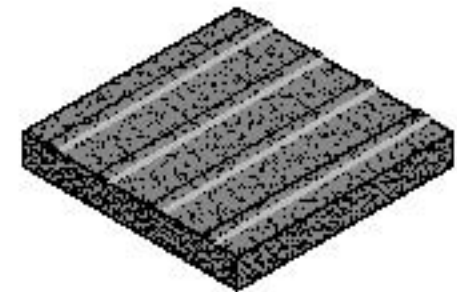
Hazard Warning



Off-Street Warning Paving



Cycleway Paving



Surface Tactile Indicators

On-Street Warning Paving



Directional



In summary



For block paving to work

Correctly designed base

Correct specification of laying course material

Edge restraint

Joints filled with sand

THANK YOU



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