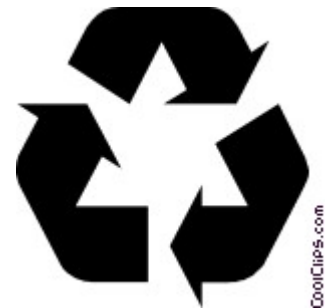


WARM MIX ASPHALT INTEREST GROUP

WMA trials: Progress report

RPF May 2010



Previously completed WMA trials:

Brackenhill Road WMA trial

November 2008

Leicester Road WMA trial

May/June 2009

Forthcoming trial in Pinetown/New Germany on
Qashana Khuzwayo Road

Previously completed WMA trials:

Brackenhill Road WMA trial



Main features:

RSA's first WMA trials

2.2 km



Conventional
temperatures

Mix D control

Mix D + 10% RA

Mix D + 20% RA (60/70 pen bitumen)

Mix D + 30% RA (60/70 pen + 2% Sasol EXP 1655)

WMA mix D + 1.5% SASOBIT

WMA mix D + 10% RA + 1.5% SASOBIT



Previously completed WMA trials:

Brackenhill Road WMA trial

Performance to date

First LTPP carried out July to October 2009 showed generally good performance with no distinct differences between the various mixes

Template developed from experience gained during these trials

Previously completed WMA trials:

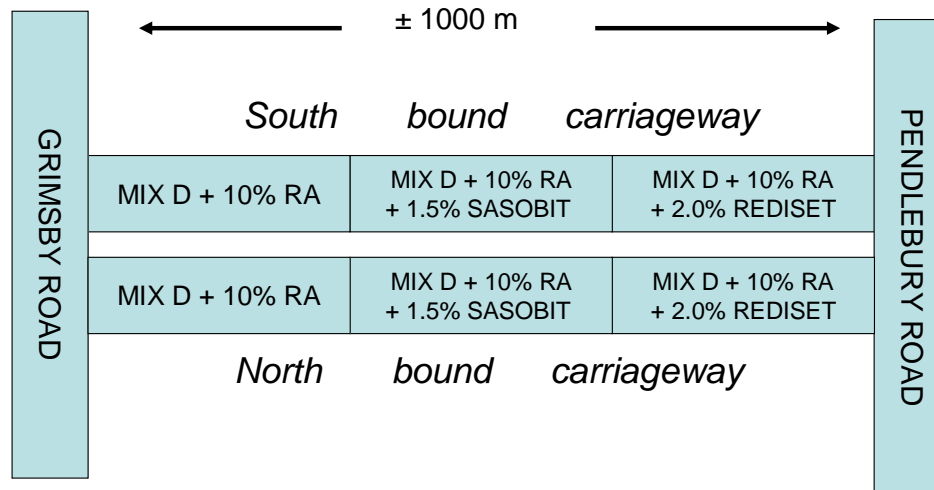


Leicester Road WMA trial

Main features

1 km dual carriageway

Bus route & carries industrial heavies



Previously completed WMA trials:

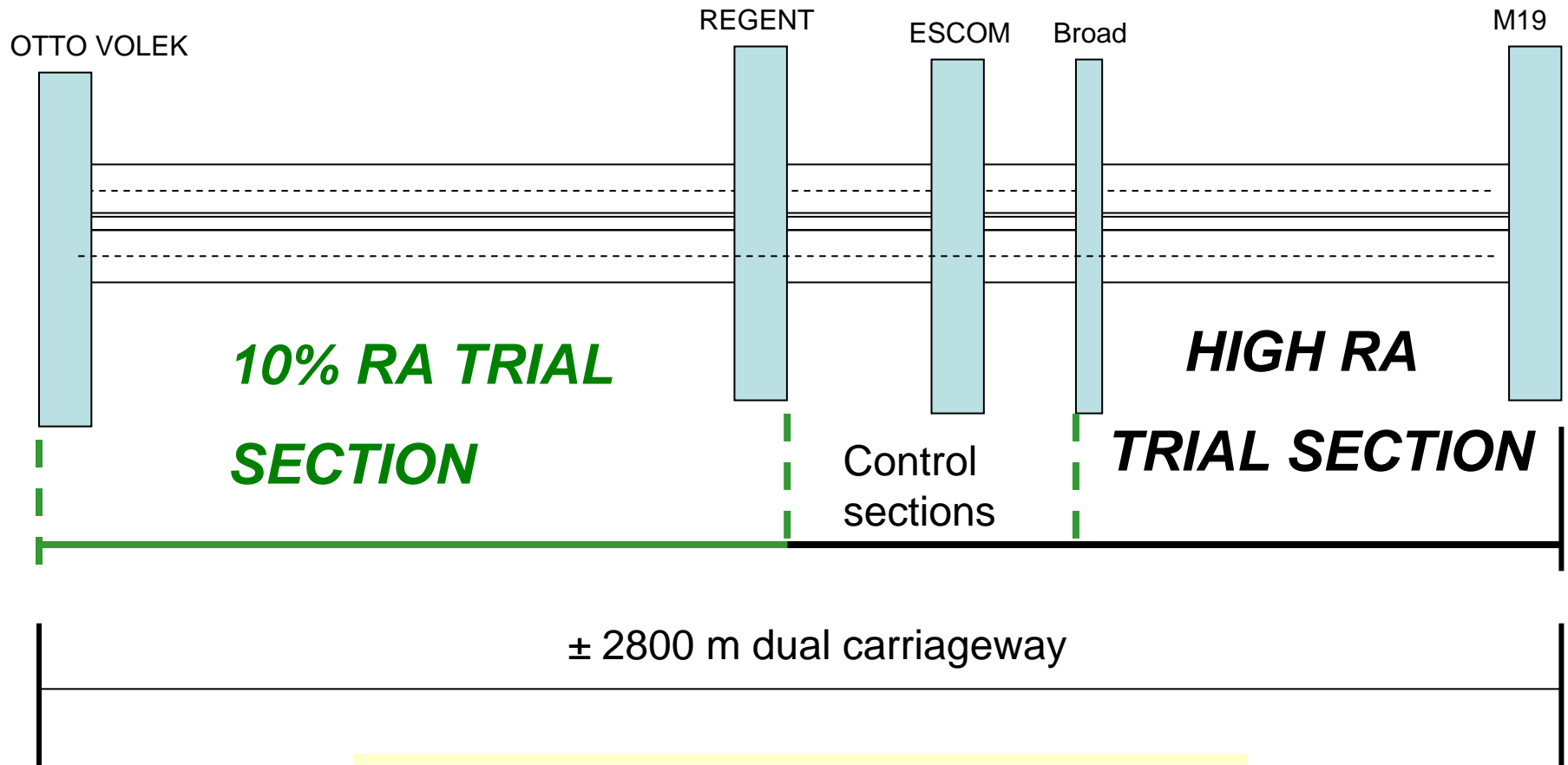
Leicester Road WMA trial

Performance to date

No significant differences in the performance of the various sections



QASHANA KHUZWAYO ROAD, PINETOWN / NEW GERMANY



Design traffic upper ES 10/ES 30

Already flagged as needing rehabilitation

QASHANA KHUZWAYO ROAD, PINETOWN / NEW GERMANY

Full rehabilitation investigation & design carried out



QASHANA KHUZWAYO ROAD, PINETOWN / NEW GERMANY

Generally thick asphalt

Mill out 70 mm to 120 mm
and replace with modified
asphalt base and surfacing



Asphalt is relatively thin on
two sections

Mill off asphalt, carry out
cold in place recycling,
pave modified asphalt base
and surfacing

10% RA TRIAL SECTION

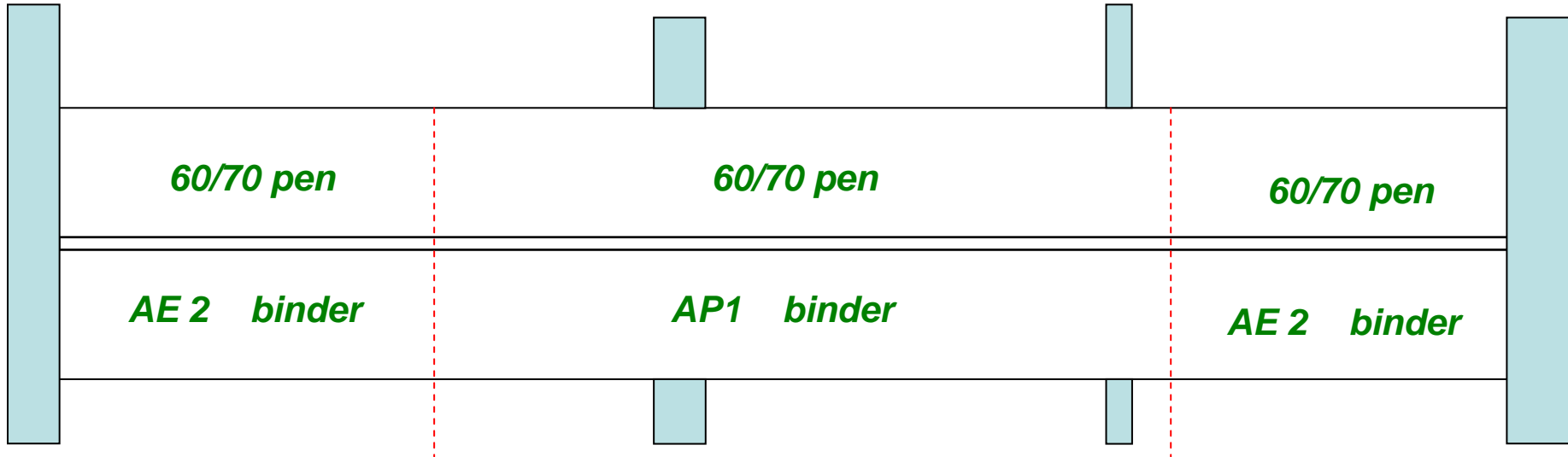
ASPHALT BASE

OTTO VOLEK

Koningkramer

Blase

REGENT



Asphalt base mix:

- WMA, at least 30°C temperature reduction
- 10% RA
- AE 2 or AP1 binder

10% RA TRIAL SECTION

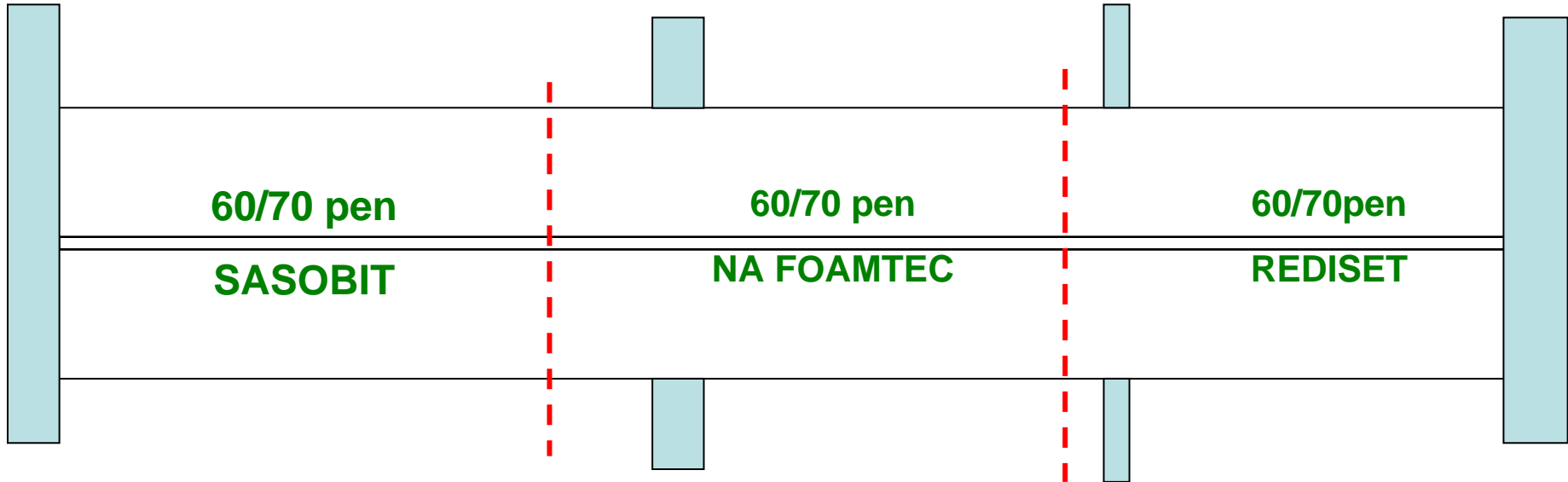
ASPHALT SURFACING

OTTO VOLEK

Koningkramer

Blase

REGENT

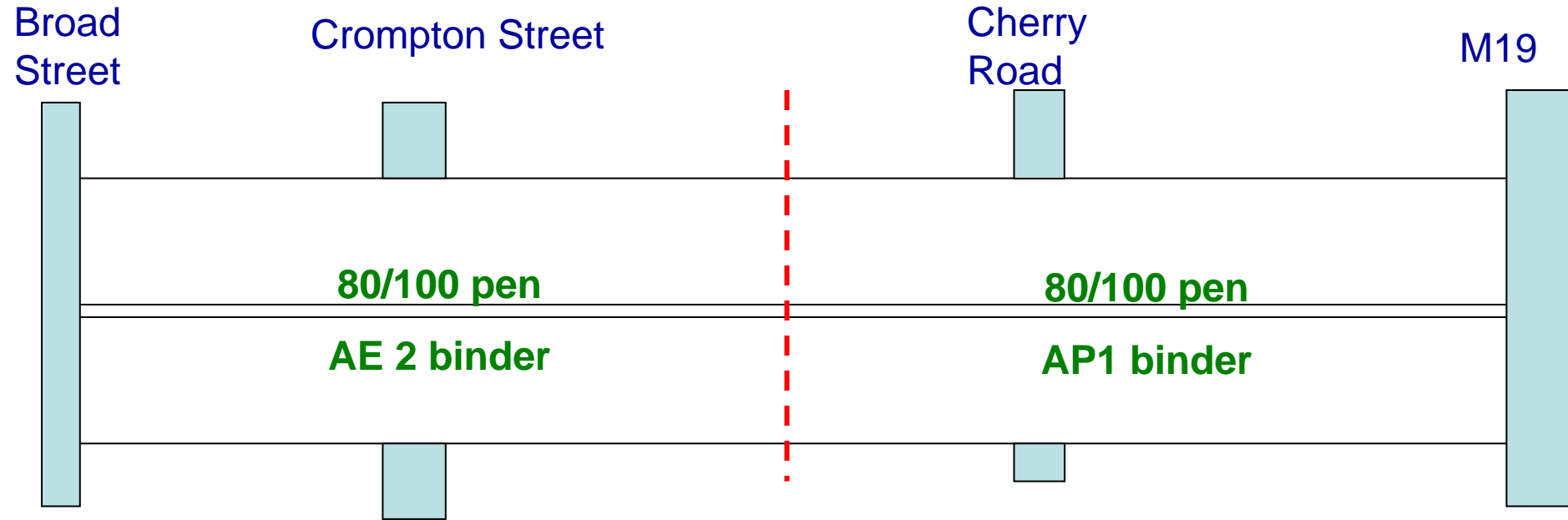


Asphalt surfacing mix:

- WMA, at least 30°C temperature reduction
- 10 % RA

HIGH RA TRIAL SECTION

ASPHALT BASE

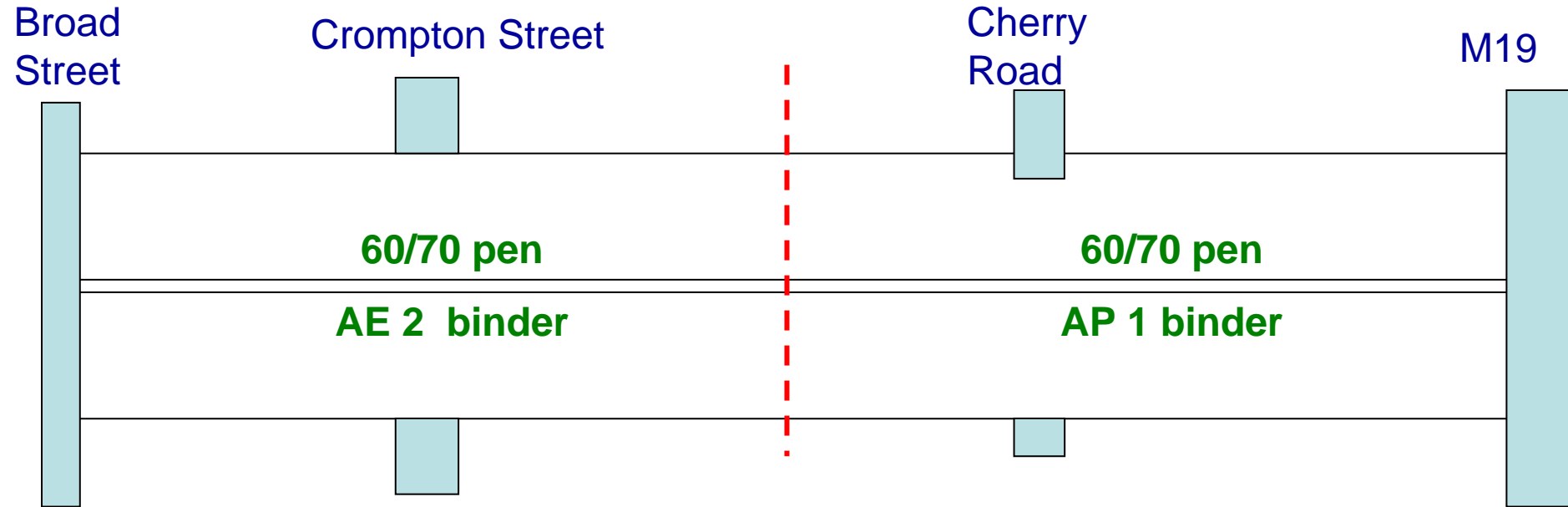


Asphalt base mix:

- WMA, at least 20°C temperature reduction
- 40% RA
- AE 2 or AP1 binder

HIGH RA TRIAL SECTION

ASPHALT SURFACING



Asphalt surfacing mix:

- **WMA, at least 30°C temperature reduction**
- **10 % RA**
- **AE 2 or AP1 binder**

Other matters:

Drafting of comprehensive specification for recycling and WMA

- First draft end May
- Final draft end 2010

Report on forthcoming trial by November RPF

Guidelines for use of WMA in RSA by February 2011

