

Id: ALF	Accelerated Loading Facility (ALF)	RIOH-ALF
Institution: Research Institute Of Highway (RIOH) Ministry of Transportation		China

Type: Accelerated Loading Facility (ALF)

Construction (commissioned): 1990



Dimensions

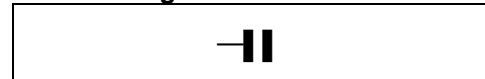
Pavement length	12.5 m
Useful testing length (at constant speed)	12.5 m

Loading

Range of Load ^(*)	80-200 kN
Transverse distribution	± 400 mm
Loading direction	⇒

^(*) Wheels loads (half axle) are converted to the corresponding axle loads.

Axle configuration



Speed

Vehicle Speed (max.)	25 km/h
Test frequency (max.) (passes/hour/section)	400
Practical output (loadings/month/section)	250 000

Sections

No. of Sections	1~4
Thickness	any
Width	11500 mm

Measured Variables

	Surface	Asphalt	Unbound Layers	Subgrade
Temperature	x	x	x	
Moisture content				x
Suction				
Deflection (transient)	x	x	x	x
Vertical Stress				
Horizontal Stress				
Vertical Strain				
Horizontal Strain		x	x	x

Environmental control

Placement	Outdoors
Air temperature	®
Pavement temperature	©
Air moisture	-
Freeze-thaw cycles	-
Water table	©
Rainfall	®

- © total control
- @ partial control
- @* indirect control (air Temp.)
- ® registered

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Brief description of Topics/Tests carried out during recent years

From Mar. 1990, ALF has been operated 18 years by Research Institute of Highway (RIOH), Ministry of Transportation (MOT). In recent 5 years, ALF has been used to do some research works on the performance study of graded crushed rock (GCR) base asphalt concrete pavement and design parameters study of asphalt pavement.

The last test have been conducted in Mar. 2005 to Aug. 2007 at The Proving Ground For Highway and Traffic located in Tongzhou, Southeast Beijing(39° 44' 15" N, 116° 39' 14" E, Google earth). Three structures have been loaded 1,000,000 cycles for modified the design parameters of asphalt pavement.
