

Access Pits, Kuala Lumpur, Malaysia

Fibrelite Covers Provide Safe Hardwearing Solution for Access Pits Set in Major Kuala Lumpur Road



Jalan Jelatek, Kuala Lumpur

Project Overview

Water mains in cities are traditionally run under roads to allow for maintenance. At regular intervals along the pipes, valves are located to regulate or shut off water flow in the event of a leak or other necessary work. Valves are set in access pits in the road (often the middle or side) under access covers. These must withstand daily traffic including heavy good vehicles, while being easily removed quickly to minimise disruption.



Previously installed steel access pit over water mains valve

Problem

Fibrelite were called upon to offer a solution for two such access covers in Jalan Jelatek, a central area of Kuala Lumpur which were regularly trafficked by cars and heavy goods vehicles with estimated loads of up to 40 tonnes. When access was required to valves, one lane (road edge cover) or the entire road (road centre cover) had to be closed off, and traffic re-routed. Previously installed modular metal covers were time consuming and hazardous to remove due to their weight, multiple sections and corroded edges. Corrosion also resulted in a less than perfect fit, allowing water ingress into the access pit. Due to its location, the cover also needed to provide an anti-skid surface for cars and a safe walking surface for pedestrians crossing the road.

There was also a concern about theft of the metal covers, following a number similar thefts in the area leaving dangerous exposed openings

Due to the central location, it was crucial that replacement was completed within a very tight timescale.



Prefabricating concrete plinth with Fibrelite FL90 frame



Fibrelite tread pattern provided the perfect slip resistance required

Solution

After surveying the site to assess the existing substrate, the contractor arranged to have specific reinforced isolated concrete slabs factory-manufactured to the Fibrelite design specification. Apertures were then cutting in the existing road surface to accommodate the concrete slabs. The new concrete slabs with Fibrelite's FL90 D400 and frame were then positioned into the openings. The D400 load rated FL90 covers handle up to 40 tonne loads (independently tested to EN124) while being safely manually removed by a single operator. The FL90 covers and frames provide a watertight seal and the 900 mm opening offers ample room for access.

The standard Fibrelite tread pattern provides the perfect slip resistance required for a safe walking surface, with test reports demonstrating that even when wet, Fibrelite covers have anti-slip properties equivalent to a modern high grade road surface, far exceeding health and safety advisory limits.



Modular metal covers time consuming and hazardous to remove due to weight, multiple sections and corroded edges



All sealed Fibrelite covers can be safely manually removed by a single operator



Plinths ready for installation



D400 load rated FL90 covers tested to EN124

Results

Fibrelite's FL90s allow quick and easy access to valves beneath, minimising the amount of time required to close the road when maintenance is required. All Fibrelite's sealed covers can be removed safely by a single operator.

The composite cover and frame create a watertight seal preventing surface water ingress into the access pit, while their inherent resistance to corrosion ensures the covers will provide problem-free years of service.

The risk of theft is minimised. Fibrelite covers have no scrap value, and unauthorised access without a Fibrelite lifting handle is very challenging.

For more information on Fibrelite's product range please contact us:

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