Water Facility, Devon, UK

Fibrelite Design And Engineer Retrofit Replacement for Heavy Cast Iron Recess Access Covers With Concrete Infill





Previous installed access covers required a crane to remove and replace



Site managers decided the health and safety risks posed by these heavy cast iron recess covers was no longer tenable

Project Overview

Fibrelite were contacted in May 2021 about this upgrade project and shortly thereafter Fibrelite were invited to conduct a site survey. This client desired a simple replacement for their previously installed heavy cast iron recess (access) covers with concrete infill. The retrofittable design and engineering solutions offered by Fibrelite meant that they would be an ideal candidate for manufacture and supply.



Heavy cast iron recess covers with concrete infill



Fibrelite's lightweight composite covers can be safely removed and replaced by two people



This client required a replacement for previous installed heavy concrete covers which required a crane to remove

Problem

The previously installed cast iron and concrete access covers were very heavy. This caused frequent operational difficulties for the customer which they considered manageable for some time. After a certain point, the site managers decided that the cost and health and safety risks posed by these heavy cast iron recess covers were no longer tenable.

Key difficulties with previously installed access covers and requirements for replacement:

- Removing and replacing the cast iron and concrete access covers necessitated specialist machinery (a crane) and training for operatives.
- Existing key housings had corroded/deformed, adding to the difficulty incurred during removal.
- The replacement covers needed to be stepped 84mm to 117mm deep to accommodate the existing frame as the customer did not wish to break out concrete if possible.
- The replacement covers needed to comply with the D400 load rating.



New custom Fibrelite covers engineered to fit directly into existing frames

Solution

Shortly after the site survey, the Fibrelite technical team were able to provide a proposal which would meet the requirements mandated from the outset by the customer. The site survey and proposal were completed quickly, which was pleasing to the customer who were keen to quickly implement this upgrade. Fibrelite's replacement solution was engineered and delivered to the required specifications.

Key Fibrelite benefits and design challenges overcome:

- Fibrelite's lightweight GRP composite trench access covers can be easily removed and replaced by any two people using the Fibrelite supplied ergonomically designed FL7 lifting handles.
- Quick and painless install, no need for concrete break out: Fibrelite delivered custom manufactured 84mm -117mm deep stepped trench access covers which could be retrofitted directly into the existing frames with no modifications required.
- The lightweight D400 load rated trench access covers delivered by Fibrelite ensure the customer would benefit from safe and easy manual handling due to the significantly reduced cover weight.



Fibrelite covers have the best strength to weight ratio on the market



Existing key housings had corroded/deformed adding to difficulty incurred during removal



New custom Fibrelite covers engineered to fit directly into existing frames

Results

The easy access solution provided by Fibrelite ensures there is no need for any specialist personnel or machinery required to remove or replace the covers.

Key Fibrelite benefits at a glance:

- Easy access to trench services using the ergonomically designed Fibrelite FL7 lifting handles.
- Best strength to weight ratio available in the market today.
- Successful application of bespoke design solution.
- Fast installation.
- Corrosion resistant.
- Anti-skid/slip properties.

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

UK Office: Tel: +44 (0) 1756 799 773 Email: enquiries@fibrelite.com

US Office: Tel: +1 919 209 2404 Email: enquiries@fibrelite.com

Malaysia Office (Asia Pacific): Tel: + 44 (0) 1756 799 773 Email: enquiries@fibrelite.com