

Pile driver hits fiber optic cable

Article Overview

When a pile driver strikes a fiber optic cable, it can cause significant service disruptions, physical cable damage, and costly repairs, as demonstrated by real-world incidents.

Real-World Example

In Singapore, a sub-contractor, Asia Piling, hit critical underground fiber optic cables while performing contiguous bored piling work for the North-South Corridor project. This incident caused a 20-hour broadband outage affecting over 5,000 households in areas including Ang Mo Kio, Bishan, Sengkang, and Punggol. The disruption highlighted the vulnerability of underground fiber networks during heavy construction activities and the importance of careful site surveying and cable mapping before pile driving operations .

Mechanism of Damage

Fiber optic cables are brittle and sensitive to mechanical stress. When a pile driver impacts the ground near or directly on a cable, the following can occur:

- Physical breakage of the fiber strands, leading to signal loss.
 - Crushing or deformation of protective sheaths, which can compromise long-term cable integrity.
 - Disruption of data transmission, causing broadband or telecommunication outages.
- In construction monitoring, fiber optic cables are sometimes embedded in piles for distributed sensing. These cables measure strain, temperature, and structural integ...

Article Content

Aug 12, 2025

Why do fibre optic cables need extra care when

Learn why fibre optic cables need special care during excavation work. Discover safe digging practices,

Dec 02, 2025

Construction crew hits underground fiber line, causes

Splicing are unlikely to cut a fiber because they're specialists - all they do is join fibers. Other crews do

May 02, 2026

Accident Report Detail

Abstract: At 1:00 p.m. on July 9, 2024, an employee and a coworker working as repair technicians for a telecommunication company

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Boss isn't gonna be happy with that one : r/funny

While you can splice fiber optic, depending on the use of the cable, it may not be allowed. A lot of FAA fiber

Oct 22, 2025

Employee hit Fiber Optic Cable | Page 3 | Lawn Care Forum

One of my employees ran over a fiber optic cable a few weeks ago. I found out at 9pm and showed up on site at 9AM

Jul 10, 2026

Distributed fiber optic sensing along driven ductile piles: Design ...

2 Distributed fiber optic sensing in geotechnical applications In recent years, distributed fiber optic monitoring systems

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Fiber Optic Underground Horizontal Drilling Machine (Ditch Witch)

How Time Warner installs underground fiber optic cable: Using a directional horizontal

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Digging Dangers: Gas line strikes due to telecommunications ...

Digging into the Data With a pattern that was hard to ignore, our investigators looked into fiber optic internet

Mar 10, 2026

Optimization of Impact Pile Driving Using Optical Fiber Bragg-Grating ...

Abstract This paper reports the use of optical fiber Bragg-grating (FBG) sensors to monitor the stress waves

Dec 14, 2025

Hit-and-Run Truck Ripped Down Our Fiber Optic Internet Line!

Accidents happen. If the kuya had just rang the doorbell and let me know he ripped down my fiber optic Internet line, I

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Man pile drives a fence post into a gas main

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Application of Distributed Fibre Optic Cables in Piles

The seasonal temperature changes in the surficial soil layers showed to influence the strain records. Several lessons were learnt

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Failure analyses of open-ended pre-stressed high-strength ...

Distributed fiber optic sensing (DFOS) has emerged as a powerful technique for geotechnical monitoring, enabling

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Field application of BOFDA-based distributed fiber optic ...

This study investigates the application of BOFDA distributed optical fiber sensing technology in static load testing of

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Integrity Testing of Pile Cover Using Distributed Fibre Optic Sensing

In this study, distributed fibre optic sensing (DFOS) cables, embedded in a pile during concreting, are used to

Dec 07, 2025

Fibre optic installation techniques for pile instrumentation

Two examples of distributed optical fibre sensing in piles are demonstrated using different installation techniques. In a load bearing

Mar 05, 2026

Distributed fibre-optic monitoring of an Osterberg-cell pile test in ...

This paper presents a case study of an Osterberg-cell test of a pile located at the Isle of Dogs in London, which was

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Distributed Fiber Optic Sensing in Pile Load Tests: Technological ...

Recently distributed fiber optic sensing (DFOS) technologies provide a powerful tool for geotechnical monitoring by

May 09, 2026

Fiber cut took a friend's office offline

Almost the exact same thing happened to me. We were called out on a fiber cut by Zayo. A horizontal bore

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Drill bit after taking out some of London's Internet, 2019-12-19

Yep, blown fibre can have 100 fibres in a duct and (tiny little tubes inside cables inside tubes) each one is blown from one end to the

Dec 21, 2025

Piling Beside Fibre Optic underbore : r/StructuralEngineering

On a project currently in design there is a fibre optic underbore around 7m deep and within 5m from the pile driving zone for a bridge

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5 Cable Killers That Destroy Buried Fiber Cable

Here Norscan's own cable locating and monitoring expert Maurice Dequier will take a look at the elements that can

Oct 18, 2025

Power Line Emergencies

If you hit an underground line Even if it looks like a little nick in the utility line, it's very dangerous and needs to be fixed immediately.

Mar 23, 2026

Woman in critical condition after tree trimmer hits fiber optic line ...

A tree trimmer accidentally hit a fiber optic line, severely injuring a woman on the northeast side.

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Hit my fiber line while digging a trench : r/FiberOptics

I was digging a small trench 2 to 3 inches deep and hit my fiber line. I mangled the protective jacket, but the fiber is still fully

Apr 27, 2026

Measurement of Soil Response to Laterally Loaded Piles using ...

In addition to the pile instrumentation, an 80 m fibre optic cable was installed within the soil mass to provide data on soil deformation

Dec 22, 2025

Trenching Underground

Fiber optic goes directly to the house now in a lot of places and has a media converter on the side of the house to

Nov 11, 2025

Model tests on pile tip buckling scenarios during impact driving in ...

To quantify buckling at the pile tip during penetration, the pile tip was equipped with a distributed sensing system using

Jul 26, 2025

Accidentally damaged the fiber optic conduit : r/Spectrum

Unfortunately this is not the small line from the service station to the house, but the large fiber optic cable that runs from our service

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Application of Distributed Fibre Optic Cables in Piles

Several lessons were learnt from the application of distributed fibre optic sensors in piles, such as installation methods, influence of

Jun 18, 2026

Failure analyses of open-ended pre-stressed high-strength concrete

In the second construction phase, four piles were instrumented with longitudinal and circumferential fiber optic cables, as well as

Jan 10, 2026

Asia Piling named for hitting fibre-optic cables that led to

SINGAPORE – Asia Piling, a company involved in many public and commercial projects

Nov 06, 2025

Buried Cable Installation

Direct buried fiber optic cable installation practices are essentially the same as those used for placing copper cable. The following

Jun 20, 2026

San Antonio woman dies after downed fiber optic line hits her

A San Antonio woman died Thursday, almost two weeks after suffering serious injuries from a toppled fiber optic line

Oct 15, 2025

Untangling the Myth: Can You Drive Over Fiber Optic Cable?

No, driving over fiber optic cables can cause damage to the delicate glass fibers within the cable, disrupting data

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