



## B2P Rutaka Footbridge – Improving Safety using Innovative Deck Pull Method

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### Abstract

In developing nations, rural communities often lack year-round safe access to local markets, farms, schools, health clinics and other critical services. Bridges to Prosperity has developed standard footbridge designs and construction methodologies to successfully construct over 200 footbridges.

This paper presents a case study of the 40m long suspended footbridge constructed in the community of Rutaka in Rwanda in 2017. The normal deck construction method required the operatives to spend a significant amount of time working at height. The industry team set themselves a challenge to reduce this.

The team successfully developed and trialled a methodology for launching the deck from a platform on the river bank, improving safety and quality control. It is a significant step forward in the development of safety and construction methods for Bridges to Prosperity.

**Keywords:** Bridges to Prosperity; Rwanda; footbridge; suspended span construction; deck launch; innovation; safe system of work; safe access

### 1 Introduction

In developing nations, rural communities often lack year-round safe access to local markets, farms, schools, health clinics and other critical services. Bridges to Prosperity (B2P) is a non-profit organisation which is solving this issue by building footbridges in partnership with local communities, sponsor companies and professionals. B2P has developed standard footbridge designs and construction methodologies to successfully

construct over 200 footbridges in developing countries since 2001. The construction methodologies used have seen incremental improvements following lessons learned from projects, which has led to construction, safety and programme enhancements.

This paper presents a case study of the B2P Rutaka Footbridge build in Rwanda in June 2017. A team of ten volunteers from industry partners Balfour Beatty and Mott MacDonald (BBMM) pioneered an innovative deck launch