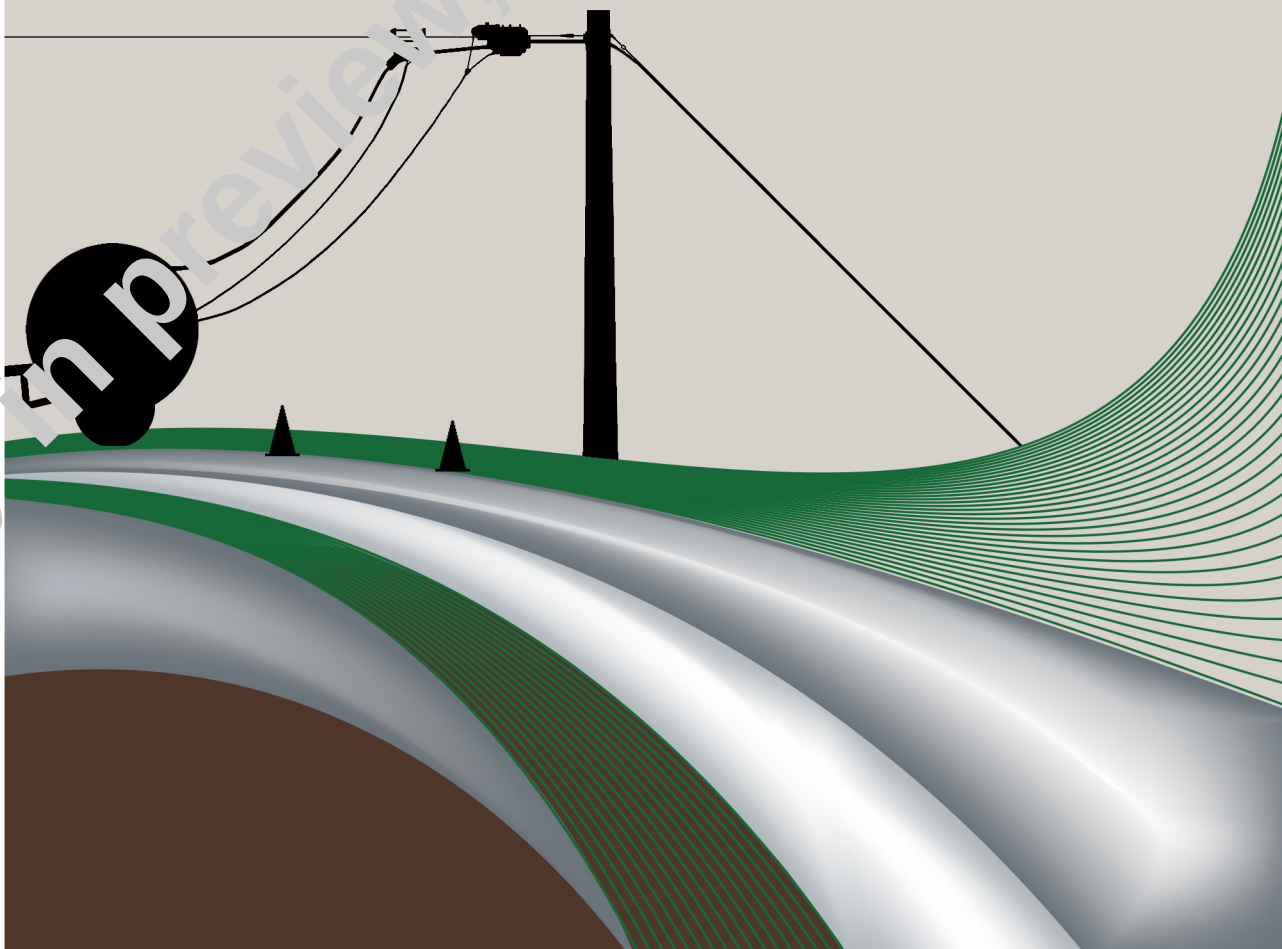
STANDARDS

# BICSI G2.2-23

## ICT Outside Plant Construction and Installation: Aerial Cable Installation



# BICSI G2.2-22

## *ICT Outside Plant Construction and Installation: Aerial Cable Installation*

**Committee Approval: January 21, 2019**

**First Published: April 22, 2022**

*This page intentionally left blank*

## BICSI International Standards

BICSI international standards contain information deemed to be of technical value to the industry and are published at the request of the originating committee. The BICSI International Standards Program subjects all of its draft standards to a rigorous public review and comment resolution process, which is a part of the full development and approval process for any BICSI international standard.

The BICSI International Standards Program reviews its standards at regular intervals. By the end of the fifth year after a standard's publication, the standard will be reaffirmed, rescinded, or revised according to the submitted updates and comments from all interested parties.

Suggestions for revision should be directed to the BICSI International Standards Program, care of BICSI.

## Copyright



## Published by:

BICSI
8610 Hidden River Parkway
Tampa, FL 33637-1000 USA

# Notice of Disclaimer and Limitation of Liability

BICSI standards and publications are designed to serve the public interest by offering information communication and technology systems design guidelines and best practices. Existence of such standards and publications shall not in any respect preclude any member or nonmember of BICSI from manufacturing or selling products not conforming to such standards and publications, nor shall the existence of such standards and publications preclude their voluntary use, whether the standard is to be used either domestically or internationally.

By publication of this standard, BICSI takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this standard. Additionally, BICSI does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting the standard or publication. Users of this standard are expressly advised that determination of any such patent rights or copyrights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard does not purport to address all safety issues or applicable regulatory requirements associated with its use. It is the responsibility of the user of this standard to review any existing codes and other regulations recognized by the national, regional, local, and other recognized authorities having jurisdiction (AHJ) in conjunction with the use of this standard. Where differences occur, those items listed within the codes or regulations of the AHJ supersede any requirement or recommendation of this standard.

All warranties, express or implied, are disclaimed, including without limitation, any and all warranties concerning the accuracy of the contents, its fitness or appropriateness for a particular purpose or use, its merchantability and its non-infringement of any third party's intellectual property rights. BICSI expressly disclaims any and all responsibilities for the accuracy of the contents and makes no representations or warranties regarding the content's compliance with any applicable statute, rule, or regulation.

BICSI shall not be liable for any and all damages, direct or indirect, arising from or relating to any use of the contents contained herein, including without limitation any and all indirect, special, incidental, or consequential damages (including damages for loss of business, loss of profits, litigation, or the like), whether based upon breach of contract, breach of warranty, tort (including negligence), product liability or otherwise, even if advised of the possibility of such damages. The foregoing negation of damages is a fundamental element of the use of the contents hereof, and these contents would not be published by BICSI without such limitations.

# Table Of Contents

***This page intentionally left blank***

# Index Of Figures

**Section 6 Installing Support Strand (Messenger)**

**Section 8 Self-Supporting Cable**

# Index Of Tables

# Preface

## Revision History

**April 22, 2022** First publication of this standard, titled BICSI G2.2-22, *ICT Outside Plant Construction and Installation: Aerial Cable Installation*

## Translation Notice

This standard may have one or more translations available as a reference for the convenience of its readers. As that act of translation may contain inconsistencies with the original text, if differences between the translation and the published English version exist, the English text shall be used as the official and authoritative version.

***This page intentionally left blank***

# 1 Introduction

## 1.1 Purpose

This standard is written to provide a common methodology for the installation and implementation of telecommunication and data cabling, with aerial pathways used within the outside plant (OSP) environment, for varying applications, jurisdictions and projects.

This standard is intended primarily for, but not limited to:

- OSP cable installers
- OSP project designers and managers
- Construction and installation entities performing aerial OSP cable and pathway activities
- Authorities having jurisdiction (AHJ)

## 1.1 Categories of Criteria

Two categories of criteria are specified – mandatory and advisory.

- Mandatory criteria generally apply to protection, performance, administration, and compatibility; they specify the absolute minimum acceptable requirements.
- Advisory or desirable criteria are presented when their attainment will enhance the general performance of the component, system, or other element as indicated within all its contemplated applications.

Mandatory requirements are designated by the word *shall*; advisory recommendations are designated by the words *should*, *may*, or *desirable,* which are used interchangeably in this standard. While requirements and recommendations are typically separated to assist in usability, paragraphs or sections may exist where both appear together for context or readability.

Where equivalent local codes and standards exist, requirements from these local specifications shall apply. Where reference is made to a requirement that exceeds minimum code requirements, the specification requirement shall take precedence over any apparent conflict with applicable codes.

# 2 Scope

This standard applies to the installation of telecommunication cable within aerial pathways. The methods within are written for balanced twisted-pair, optical fiber media, and coaxial cables, including installation methods for poles, supports/arms and lashing of cables within the aerial pathway.

The material found within this standard may not cover all requirements specific to the site or project requirements. Additionally, specific items not covered within this standard include:

- Electrical cabling installation
- Maintenance, decommissioning or removal of aerial cabling and its associated pathways
- Installation of electrical protection systems (e.g., copper cable protection terminals and devices)

NOTE: The following illustrated recommendations and methodologies for installation and placement of strand (messenger), lashed cable, and self-supporting cable are typical of those used in outside plant construction and installation projects, but do not cover every possible situation that may be encountered. Therefore, outside plant construction and installation personnel should always adhere to the information shown on the construction documents and obtain confirmation/guidance from the engineer and/or client in the event differing site conditions occur or clarification is required.

**NOTICE:** This standard does not purport to address all safety issues associated with its use. It is the responsibility of the users of this standard to establish appropriate safety and health practices and determine the applicability of regulatory or other limitations prior to use.