

# **PRODUCT & ENGINEERING MANUAL**

#### **INTRODUCTION**

Nucor Building Systems is a building division of Nucor Corporation, the largest steel producer in the United States. Nucor Corporation is a major operator of highly efficient steel mini-mills, a major producer of steel joists, and a technological leader in all of its various divisions. Nucor is well known for its ability to manufacture high quality products at competitive prices. These attributes apply very well to Nucor Building Systems, as Nucor brings its quality and competitive philosophy to the metal building industry. Nucor Building Systems markets its product through an authorized builder network. This network places trained, qualified builders in the local market to work with owners directly.

Nucor Building Systems has invested in innovative manufacturing and engineering techniques to provide the building contractor and owner with the highest in product quality and engineering ability. The sales force is committed to personal service for the building contractor and design professional. Nucor Building Systems makes it easy for the building contractor to obtain metal building systems. Nucor Building Systems is a member of the Metal Building Manufacturers Association (MBMA), a nationally recognized organization.

Nucor Building Systems is focused on becoming the industry leader in quality and service. Nucor is a growing force in the metal building industry and your supplier for building systems, building components, and standing seam roof.

#### PURPOSE OF THIS MANUAL

This product manual is your guide to choosing, designing, and specifying a Nucor Building Systems building or component. Properly used, this manual will allow the building contractor or design professional to order a building that will exactly fit the enduse needed. By using the different charts in this manual, the contractor or design professional may do preliminary foundation designs, determine preliminary clearances and sizes of framing members, and prepare anchor bolt layouts.

If you are unfamiliar with metal building systems, please contact your Nucor Building Systems contractor for specific assistance, or your Nucor Customer Service Representative.

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If you are familiar with metal building systems, this manual will serve as a valuable design tool and reference book. In keeping with a continuing program of product improvement, *all information contained herein is subject to change.* Prior to finalizing the design of any specific project, please contact your Nucor Customer Service Representative to confirm appropriate information.

### **CUSTOM APPROACH**

Building owners today demand the most value possible from their facility, and Nucor uses a design philosophy that delivers this needed value to the customer. All buildings are custom engineered and manufactured to meet the specific needs of the building owner. No longer are building owners required to make their operation fit the standards of the building supplier. The design professional may select any framing system or bay layout to custom design a pre-engineered structure that has the economies of a standard building, and the flexibility of conventional design. Also, all Nucor buildings are compatible with a wide range of construction systems not supplied by Nucor such as, masonry of all types, precast and tilt-up, single-ply roofing, and a wide range of insulations.

### SYSTEM DESIGN AND CRITERIA

Nucor metal buildings are designed to function as a system. Structural integrity is best achieved when the entire system is designed and fabricated by Nucor. All Nucor buildings are designed by, or under the direct supervision of Registered Professional Engineers. This manual was designed and prepared by engineers. When you specify a Nucor building, you do not have to worry about the reliability of any Nucor product.

Nucor Building Systems uses the specifications and standards of nationally recognized organizations such as AISC, AISI, AWS, and MBMA. Also, all Nucor buildings are engineered to meet the appropriate building codes such as International Building Code (IBC), National Building Code of Canada (NBC), along with various local codes throughout the country. Nucor makes every effort to comply with all aspects of such standards and codes, but in the event of any conflict, and unless stipulated otherwise in the Nucor contract documents, Nucor standard criteria and specifications shall govern. Please refer to the specification section for more detailed information.