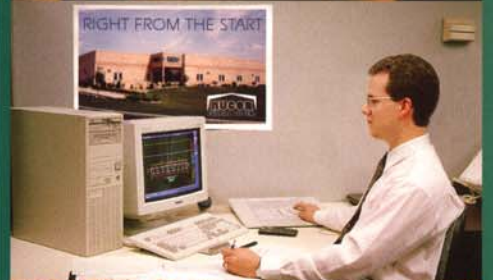


RIGHT FROM THE START

**BUILDING
SYSTEMS**

NUCOR
BUILDING SYSTEMS





Nucor Building Systems

OVERVIEW

Nucor Building Systems is a division of Nucor Corporation, a Fortune 500 Company, producing steel and steel products. Nucor Corporation has been heavily involved in industrial and commercial projects for many years. Nucor has earned a reputation for providing the highest quality products and an outstanding record for customer satisfaction.

Complete metal building packages can be customized and combined with other materials such as storefront glass and masonry to produce a cost effective, aesthetically sound building designed for your special requirements.

As a custom manufacturer, Nucor produces a wide array of structural systems including clearspan rigid frame, modular rigid frame, tapered beam and lean-to. All are available in standard or long bay options. Crane support systems and mezzanines can also be included as part of the complete building package. Your Nucor building can be designed to virtually any desired dimension to achieve the optimal design solution for your building requirements.

The following pages demonstrate that Nucor Building Systems is one of the most flexible and diverse building manufacturers in operation today.

Design Criteria

Nucor Building Systems will custom design your facility according to the specific design criteria specified by your local project engineer of record and communicated on the Nucor Order Documents. The project engineer of record must be knowledgeable regarding the geographical area of

the building site as well as the building's functional requirements. All designs are in accordance with the MBMA Low Rise Building Systems Manual and adhere to your specified building code.



Engineering Services

Nucor Building Systems is a building systems manufacturer incorporating the latest engineering knowledge in the industry today. A full staff of in-house engineers and detailing personnel ensure prompt and efficient consideration of special design needs. All engineering follows industry specifications and standards published by the American Iron and Steel Institute, American Institute of Steel Construction, and the Metal Building Manufacturers Association.

All buildings are designed and certified by company registered professional engineers in accordance with the loading

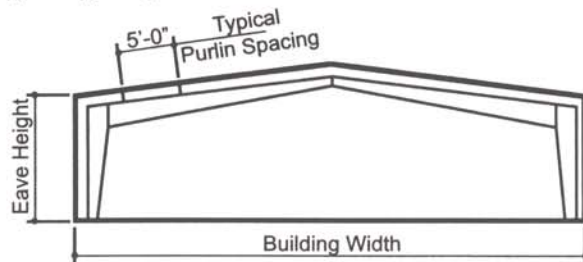
information specified to Nucor on the signed Nucor Order Documents and in compliance with the MBMA. Nucor follows the recommended code of standard practice for steel joists (SJI) and steel decking (SDI) for roof and floor applications.

Engineering services and products can also be provided for second-story floors, mezzanines, crane bays, and other building accessories.

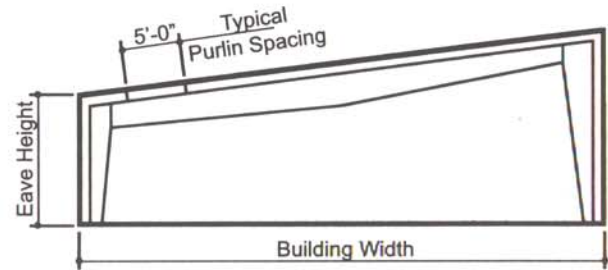
PRIMARY FRAMING

Clearspan • Rigid Frame (RCG) - Single Slope (RCS)

This tapered member frame is typically used in clearspan situations from 40 feet to 150 feet. It can be either gable or single slope. Common roof slopes of 1/4 to 4 in 12 are offered. When large clearspan areas are required for special industrial and commercial projects, the Clearspan frame type is typically the economical choice.



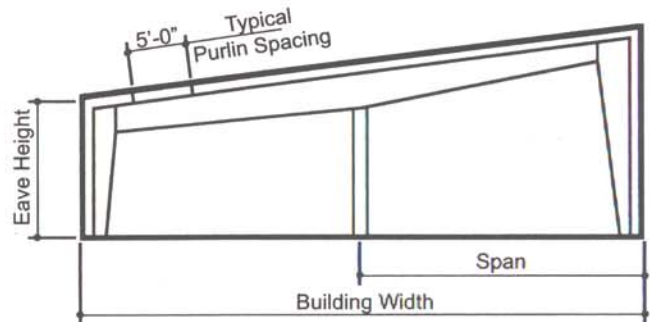
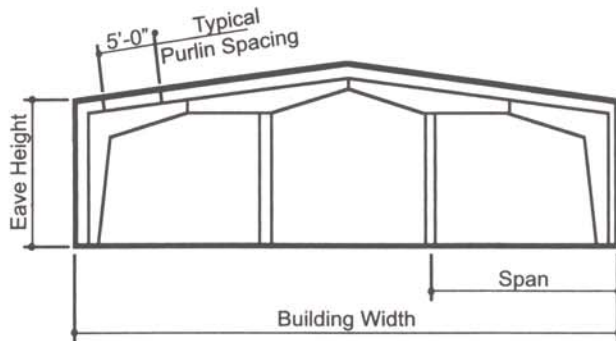
A single slope rigid frame is commonly used on retail centers or as a creative way of adding to an existing structure. Both can be used with either cold-form purlins or open web joists.



Modular • Rigid Frame (RMG) - Single Slope (RMS)

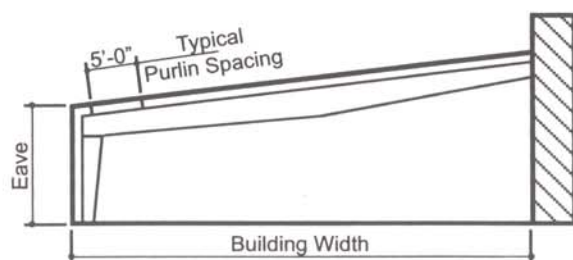
The solid web rigid frame with interior columns provides multiple spans on wider buildings. It can be either gable or single slope. This frame type is economical with individual spans of 40 feet to 80 feet and building widths from 80 feet

to 300 feet plus. Roof slopes are 1/4 to 1 in 12. The Modular frame can be used with either cold-form purlins or open web joists.



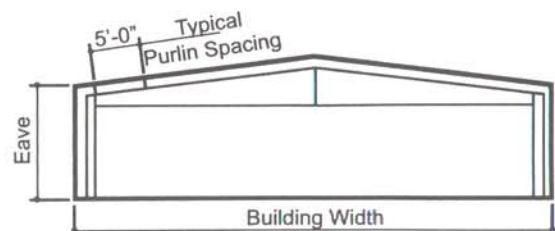
Lean-to (LCS)

The Lean-to frame joins to and is supported by a main building frame. Common spans are 20 feet to 60 feet. The lean-to differs from the single slope in that it must be supported on the high side by an adjoining building column.



Tapered Beam (TCG)

This straight column rigid frame is designed for maximum efficiency of interior space. It is suitable for all types of small buildings that require clearspans from 20 feet to 60 feet. Roof slopes of 1/4 to 1 in 12 are available. The Tapered Beam frame is ideal for partitioning interior bays and small crane support systems.



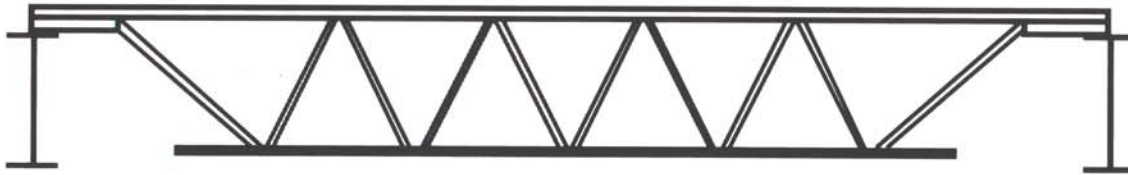
LONG SPAN OPEN WEB JOISTS

Long Bay System

Nucor Building Systems provides open web joists designed to function as an integral part of the pre-engineered system. Joists are very suitable for the support of floors, roof decks, and standing seam roofs. Joists are generally more economical when bay sizes are wider than 30 feet or when roof loads are excessive. "K" series joists are normally used

up to 60 feet, while the "LH" and "DLH" series joists are normally used from 60 to 120 feet.

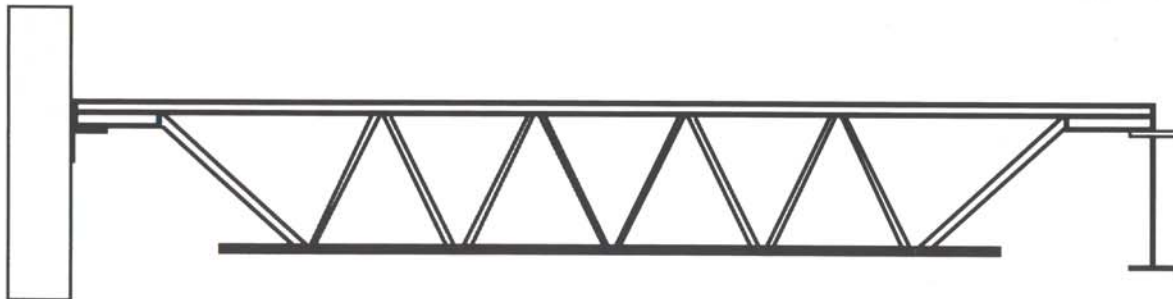
The NUCOR "CFR"TM or a conventional roof option is recommended for use with joist roof systems. Open web steel joists are designed and fabricated according to Steel Joist Institute specifications.



Hardwall Long Bay System

Hardwall systems may be applied to a Nucor Long Bay building when designed by the Project Engineer of Record. The perimeter is masonry or concrete and can be designed as load bearing or non-load bearing shearwalls. When designed as load bearing, the need for wall columns is

eliminated, therefore offering more interior free space. Roof diaphragm action, roof plane bracing, eave trusses, along with shearwalls are needed to provide lateral stability for the structure.



SECONDARY FRAMING

Roof Structurals

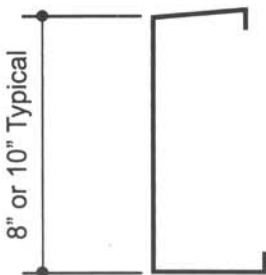
Nucor Building Systems supplies either cold-formed Zee section purlins or open web bar joists. The decision on which structural members to use will be based on the economy of each member, the roof system used, the product application, or by customer choice at the time of order entry.

Nucor's continuous purlin system meets the stringent requirements of the latest edition of the AISI specification. All open web joists are designed in accordance with the Steel Joist Institute requirements. Purlins of 12" and 14" depth are also available for some applications. Consult Nucor for specifics.

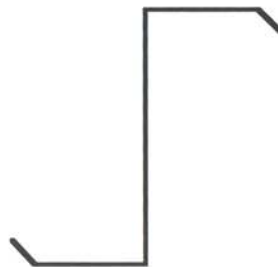
Cold Formed Structural Members Section Properties

Section	Depth (in.)	Flange Width (in.)	Thickness (in.)	Sx* (in. ³)	Ix* (in. ⁴)	Va* (kips)	Ma* (in.-kips)
8z060	8.0	2.50	0.060	1.91	8.44	2.40	62.8
8z076	8.0	2.50	0.076	2.56	10.66	4.90	84.72
8z105	8.0	2.50	0.105	3.67	14.67	12.33	120.80
10z076	10.0	2.50	0.076	3.50	18.12	3.87	115.42
10z105	10.0	2.50	0.105	5.00	24.99	10.27	164.60
8c060	8.0	2.75	0.060	1.75	8.39	2.40	57.72
8c076	8.0	2.75	0.076	2.30	10.58	4.90	75.77
8c105	8.0	2.75	0.105	3.55	14.47	12.33	117.11
10c076	10.0	2.75	0.076	3.12	17.94	3.87	103.08
10c105	10.0	2.75	0.105	4.83	24.61	10.27	159.38

* Incorporation of section properties to particular design must be done by a competent engineering professional who is cognizant of all criteria set forth by the latest edition of AISI.



Eave Strut



Zee shape



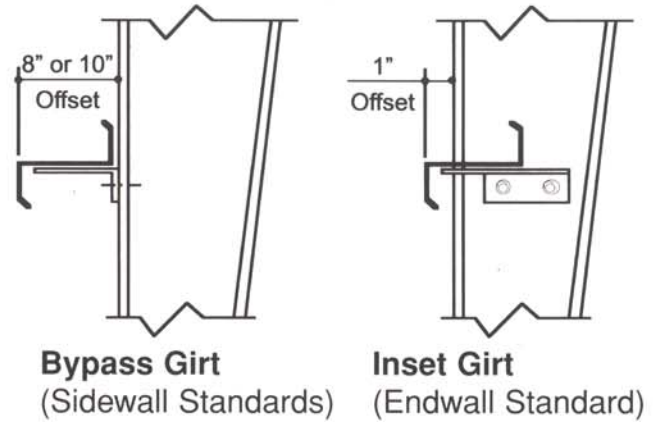
Cee shape

TYPICAL STRUCTURE DETAILS

Wall Structurals

Nucor Building Systems provides 8" or 10" sidewall girts depending on wind loading and column spacing. Sidewall girts can be designed for either inset or bypass applications. Bypass girts offer the most economical sidewall design and are practical when walls are open partially for masonry. Inset girts are a standard option on endwall conditions and allow for a more efficient use of interior space. The 1" offset prevents a sheeting bulge caused by the compression of insulation at the columns.

Girts of 12" and 14" depth are also available for some applications. Consult Nucor for specifications.



Bracing

Nucor Building Systems will offer a variety of bracing systems depending on the type of structure to be designed. A standard rigid frame building will typically use rod bracing in the roof and walls.

Fascia

Fascias enhance the front or entrance areas of buildings. A wide range of fascias are designed by Nucor and can be found in section 7.3 of the Nucor Product & Engineering Manual.

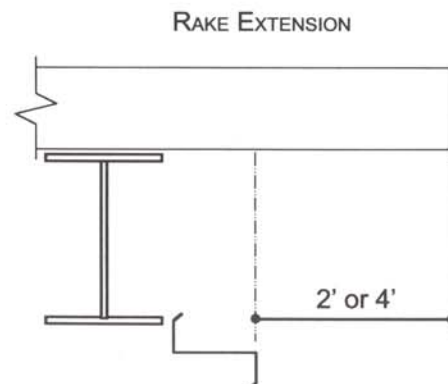
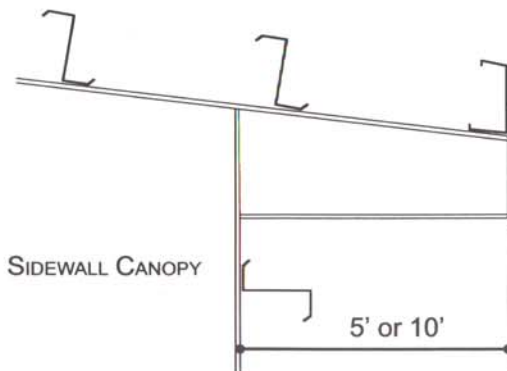
Mezzanines

Mezzanines are also included in our design options. Nucor Building Systems can provide your floor system either free-standing or in conjunction with your metal building frame. Items offered by Nucor for mezzanines are all columns,

beams, floor joists, bridging, floor decking, and deck forming angle. Miscellaneous steel for stairs, handrails, or slab design is not offered by Nucor. Please refer to section 4.5 of the Nucor Product & Engineering Manual.

Canopy/Rake Extension

Canopies and overhangs are available to enhance the exterior appearance of your building. The following designs are the most commonly used:



NUCOR ROOF SYSTEMS

Roof Panel

Nucor offers one of the most versatile array of roof choices available. Choices range from standard Nucor "Classic Roof"[™] panels to state-of-the-art Nucor "CFR"[™] (standing seam) and Nucor "Composite CFR"[™].

Nucor Concealed Fastener Roof

Nucor "CFR"[™]

Nucor "CFR"[™] and Nucor "Composite CFR"[™] standing seam roof systems are available in Galvalume[®], and Nucor standard colors. Other colors are available upon request. Panel lengths are available to 54'-0". UL90 or Factory Mutual is available upon request. These roof systems offer maximum weather protection for low profile roof applications. See Underwriters Laboratories, Inc.[®] Building Materials Directory.



24" COVERAGE / 24 GAGE
PURLIN SPACING TO 5'-0"; JOIST SPACING 5'-6"
UL90[®], FM

Nucor "Classic Roof"[™]

Nucor "Classic Roof"[™] is available in Galvalume[®], and Nucor standard colors. Other colors and 24 gage are available upon special request. Nucor "Classic Roof"[™] panels are a "tried and true" roof system for most purlin applications.



36" COVERAGE / 26 GAGE
DECK AS SPECIFIED - PURLIN SPACING TO 5'-0"; JOIST SPACING 5'-6"
UL90 CONSTRUCTION 176

A few words about Panel Finish

Galvalume[®] is one of the most trusted products on the market today. Galvalume[®] requires very little maintenance and comes with a 20 year material warranty.

Painted roof and wall panels provided by Nucor Building Systems for exterior use are precision roll-formed from pre-printed galvanized or Galvalume[®] coils. Finished material is subjected to stringent quality control tests including:

physical bend and impact resistance, film thickness, hardness, gloss and color.

This process is time-tested and uses the industry proven Silicone Polyester paint system. Silicone Polyester paint is a recognized standard of product quality for exterior building wall systems. *Warranties are available upon request.*

NUCOR WALL SYSTEMS

Wall Panel

Wall systems offered here allow the owner many options for function as well as appearance. All panels shown are available in a range of standard colors. Special colors and gages are available upon request (minimum quantities do apply). Nucor buildings also interface well with masonry, precast concrete, and tilt-up concrete.



36" COVERAGE / 26 GAGE

Nucor "Classic Wall"™ (CW)

The Nucor "Classic Wall"™ (CW) provides a strong, attractive wall panel. This panel is ideal for commercial, community, and industrial applications. The Nucor "Classic Wall"™ offers what most builders, contractors, and owners have come to expect from us in a versatile and attractive building system.



36" COVERAGE / 26 GAGE

Nucor "Reverse Classic"™ (RC)

The Nucor "Reverse Classic"™ (RC) panel offers a rigid surface designed to compress up to 4" of insulation without causing unsightly bulges at the girt. Fasteners are semi-concealed, allowing attention to focus on the beauty of the wall.



36" COVERAGE / 26 GAGE

Nucor "Accent Wall"™ (AW)

The architectural features of the Nucor "Accent Wall"™ (AW) make it ideal for fascias and decorative wall designs. The recessed fasteners provide a clean exterior appearance, and the deep rib configuration creates an attractive shadow pattern. Fasteners for the Nucor "Accent Panel"™ are semi-concealed.



36" COVERAGE / 28 GAGE POLAR WHITE (STD)

Nucor Liner Panel

Many times liner panels are specified to protect and to finish the building interior. The 28 Gage panel is coated with a Polyester paint system and is ideal for most liner conditions not exposed to weather. Where exposure to the effects of weather is a requirement or other colors are requested, specify 26 Gage Nucor "Classic Wall"™.

NUCOR

BUILDING SYSTEMS

NUCOR buildings can be designed for a host of functional as well as attractive purposes. The use of other materials such as store-front glass and masonry can make your Nucor building as appealing as well as a money saving answer to your building needs.

The low maintenance features of a Nucor system make your building a great long-term investment. Your Nucor Builder can help you design and build specifically for your particular needs. Do not think that you must plan around rigid manufacturer standards. Nucor is a custom building company and, as such, dimensions are based upon measurements to the nearest 1/16". This gives your Nucor Builder complete freedom in specifying our product to your special requirements.

Nucor buildings have many applications including: retail centers, community centers, grocery stores, automobile dealerships, recreational facilities, and warehouses. Industrial applications present special opportunities for the Nucor Builder. By incorporating crane loads into the design of the building, valuable construction time as well as money can be saved.

Have a particular building in mind? Contact Nucor Building Systems for the location of your nearest Nucor Builder. Your Nucor Builder will be happy to help with your next building project.





"When we're erecting a building, it's important the steel fits together well. That's one of the reasons we choose Nucor as our building manufacturer. Their steel fits!"

Grover Stracener— Owner, Stracener Brothers Construction, Blytheville, Arkansas

"Nucor's quality and service continue to earn our respect and repeat business!"

McKinley K. Dull, P.E.— McKinley Building Corp.
Wilmington, North Carolina



"When it comes to crane buildings, I don't think anyone knows more than Nucor!"

Dean Gunderson— Owner, Suburban Construction, Inc.
Richfield, Wisconsin

"Nucor delivers what's important to us: competitive prices on steel, and fast response from people we can trust."

Tom Hudson— President, Matteson – Hudson Construction, Co., Nashville, Tennessee



"At Nucor they do what they say they're going to do and they keep their commitments. I can count on it with Nucor."

Don Bobay— President, Moss Engineering Corp.
Ft. Wayne, Indiana

"Nucor strives to beat my expectations."

Josh Kale— Project Mgr., Morris Construction Co.
Greenville, South Carolina



NUCOR

BUILDING SYSTEMS

A Division of Nucor Corporation

Nucor Building Systems
Indiana
305 Industrial Parkway
Waterloo, IN 46793
219/837-7891
Fax: 219/837-7384
www.nbsin.com

Nucor Building Systems
South Carolina
P.O. Box 1006
200 Whetstone Rd.
Swansea, SC 29160
803/568-2100
Fax: 803/568-2121
www.nbssc.com

Nucor Building Systems
Texas
600 Apache Trail
Terrell, TX 75160
972/524-5407
Fax: 972/524-5417
www.nbstx.com

Nucor Building Systems
Northeast Sales Office
210 Granite Run Drive
Suite 280
Lancaster, PA 17601
717/735-7766
Fax: 717/735-7769
www.nbsin.com