MEZZANINE GUIDE

Cisco-Eagle

shop talk

UTILIZE THE VERTICAL CUBE

cisco-eagle.com/mezzanines

VERTICAL SPACE EFFICIENCY

EXPAND UP, NOT OUT FOR MAXIMUM STORAGE CAPACITY

"Start the process with a clear understanding of your application. Will the mezzanine be used for production equipment? How will it integrate with existing operations? What type of platform access do you need? What type of structure? We help companies utilize vertical space now and moving into the future."

—Alex, Employee-Owner Since 2013
Account Executive

shop talk

You're paying rent, taxes and for utilities for your existing space. Even if nearby space is available and suitable, mezzanines make sense because all these costs are wired in and don't typically increase with a mezzanine installation.

The space you already have is more valuable than space you could acquire

Use platforms and mezzanines to leverage your existing space for offices, production equipment, storage areas, manufacturing process, product/conveyor sorting and much more. It's a fraction of the cost of new construction and delivers long term value. Mezzanines also offer significant tax depreciation advantages.

Quick links to mezzanine resources

- Cisco-Eagle Blog: Mezzanines
- Mezzanine Articles & Tips
- Mezzanine Home Page
- Article: When is a Mezzanine not a Mezzanine?

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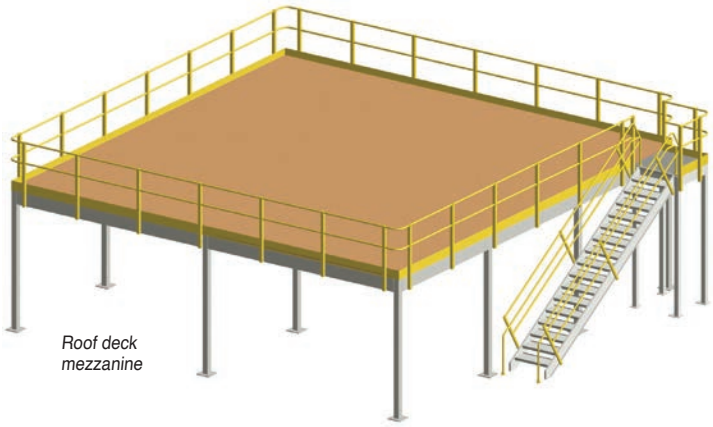
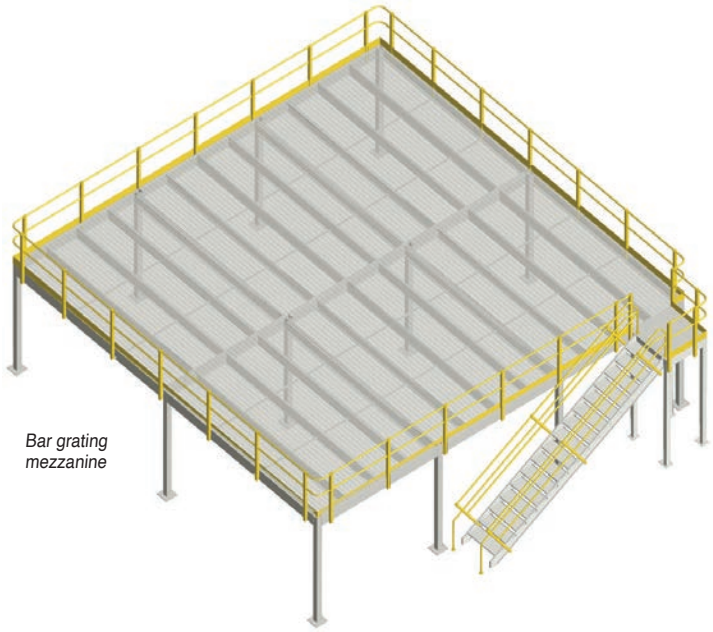
STRUCTURAL MEZZANINES

PRE-ENGINEERED PLATFORMS FOR STORAGE, MACHINERY PROCESSING AREAS



Roof deck mezzanine



Bar grating mezzanine

Added space—reduced costs

Mezzanines are a cost-effective way to add storage and work space to an industrial facility. Warehouses, distribution centers, aerospace facilities and manufacturing operations typically have space in the "air" that a structural mezzanine can take advantage of.

Structural mezzanines are pre-engineered

These work platforms are ideal because they shorten lead times and reduce costs when space is needed. Compared to the costs of traditional construction or new facilities, a mezzanine is the clear winner.

High strength, zinc plated steel bolts combine with heavy duty steel angles to align the framing for uniform installation. These integrated components lock the connection into a solid unit for maximum strength. They provide tremendous strength and load bearing capacity, with low composite heights available.

Structural systems meet the specifications for structural steel construction set by the American Institute of Steel Construction (AISC). In addition, all materials conform to the standards set by the American Society of Testing Materials (ASTM). All systems meet specified national, state and local codes.

Structural vs. rack/shelf supported

Structural mezzanines are more versatile because they can be custom configured more easily. Depending on the storage media involved, they may also have higher capacities. Shelving or rack supported systems are ideal for concentrated storage where you have many inventory positions.

Structural systems shine where you need to support production equipment, integrate a conveyor system, or for general storage or manufacturing operations on the mezzanine. They can be built to virtually any shape or size (the listings on the next page are just a few standard sizes, and not indicative of the full range of sizes).

PRE-ENGINEERED CONFIGURATIONS

Height (Feet)	Width (Feet)	Length (Feet)	Square Feet	Roof Decking Model Number	Wt. (Lbs.)	Bar Grating Model Number	Wt. (Lbs.)
8'	11'	15'-11¼"	176	WDNS11-16-8RD	3,995	WDNS11-16-8BG	4,521
		31'-5½"	346	WDNS11-32-8RD	6,114	WDNS11-32-8BG	7,153
		46'-11¾"	517	WDNS11-47-8RD	8,288	WDNS11-47-8BG	9,838
		62'-6"	687	WDNS11-63-8RD	10,458	WDNS11-63-8BG	12,520
	21'-7"	15'-11¼"	346	WDNS22-16-8RD	5,906	WDNS22-16-8BG	6,938
		31'-5½"	678	WDNS22-32-8RD	9,545	WDNS22-32-8BG	11,582
		46'-11¾"	1,015	WDNS22-47-8RD	12,914	WDNS22-47-8BG	15,956
		62'-6"	1,350	WDNS22-63-8RD	16,276	WDNS22-63-8BG	20,323
	32'-2"	15'-11¼"	515	WDNS33-16-8RD	7,814	WDNS33-16-8BG	9,352
		31'-5½"	1,011	WDNS33-32-8RD	13,013	WDNS33-32-8BG	16,049
		46'-11¾"	1,512	WDNS33-47-8RD	17,909	WDNS33-47-8BG	22,442
		62'-6"	2,011	WDNS33-63-8RD	22,798	WDNS33-63-8BG	28,830
	42'-9"	15'-11¼"	684	WDNS43-16-8RD	9,756	WDNS43-16-8BG	11,800
		31'-5½"	1,343	WDNS43-32-8RD	16,480	WDNS43-32-8BG	20,514
		46'-11¾"	2,010	WDNS43-47-8RD	22,908	WDNS43-47-8BG	28,933
		62'-6"	2,672	WDNS43-63-8RD	29,320	WDNS43-63-8BG	37,336
9'	11'	15'-11¼"	176	WDNS11-16-9RD	4,094	WDNS11-16-9BG	4,620
		31'-5½"	346	WDNS11-32-9RD	6,237	WDNS11-32-9BG	7,276
		46'-11¾"	517	WDNS11-47-9RD	8,435	WDNS11-47-9BG	9,985
		62'-6"	687	WDNS11-63-9RD	10,629	WDNS11-63-9BG	12,691
	21'-7"	15'-11¼"	346	WDNS22-16-9RD	6,029	WDNS22-16-9BG	7,061
		31'-5½"	678	WDNS22-32-9RD	9,704	WDNS22-32-9BG	11,741
		46'-11¾"	1,015	WDNS22-47-9RD	13,109	WDNS22-47-9BG	16,151
		62'-6"	1,350	WDNS22-63-9RD	16,507	WDNS22-63-9BG	20,554
	32'-2"	15'-11¼"	515	WDNS33-16-9RD	7,961	WDNS33-16-9BG	9,499
		31'-5½"	1,011	WDNS33-32-9RD	13,208	WDNS33-32-9BG	16,244
		46'-11¾"	1,512	WDNS33-47-9RD	18,152	WDNS33-47-9BG	22,685
		62'-6"	2,011	WDNS33-63-9RD	23,089	WDNS33-63-9BG	29,121
	42'-9"	15'-11¼"	684	WDNS43-16-9RD	9,927	WDNS43-16-9BG	11,971
		31'-5½"	1,343	WDNS43-32-9RD	16,711	WDNS43-32-9BG	20,745
		46'-11¾"	2,010	WDNS43-47-9RD	23,199	WDNS43-47-9BG	29,224
		62'-6"	2,672	WDNS43-63-9RD	29,671	WDNS43-63-9BG	37,687
10'	11'	15'-11¼"	176	WDNS11-16-10RD	4,762	WDNS11-16-10BG	4,894
		31'-5½"	346	WDNS11-32-10RD	7,268	WDNS11-32-10BG	7,636
		46'-11¾"	517	WDNS11-47-10RD	9,825	WDNS11-47-10BG	10,431
		62'-6"	687	WDNS11-63-10RD	12,379	WDNS11-63-10BG	13,223
	21'-7"	15'-11¼"	346	WDNS22-16-10RD	7,048	WDNS22-16-10BG	7,421
		31'-5½"	678	WDNS22-32-10RD	11,329	WDNS22-32-10BG	12,230
		46'-11¾"	1,015	WDNS22-47-10RD	15,336	WDNS22-47-10BG	16,769
		62'-6"	1,350	WDNS22-63-10RD	19,336	WDNS22-63-10BG	21,301
	32'-2"	15'-11¼"	515	WDNS33-16-10RD	9,332	WDNS33-16-10BG	9,945
		31'-5½"	1,011	WDNS33-32-10RD	15,423	WDNS33-32-10BG	16,862
		46'-11¾"	1,512	WDNS33-47-10RD	21,210	WDNS33-47-10BG	23,475
		62'-6"	2,011	WDNS33-63-10RD	26,989	WDNS33-63-10BG	30,083
	42'-9"	15'-11¼"	684	WDNS43-16-10RD	11,648	WDNS43-16-10BG	12,503
		31'-5½"	1,343	WDNS43-32-10RD	19,515	WDNS43-32-10BG	21,492
		46'-11¾"	2,010	WDNS43-47-10RD	27,086	WDNS43-47-10BG	30,186
		62'-6"	2,672	WDNS43-63-10RD	33,533	WDNS43-63-10BG	38,864

Many other sizes and configurations available

- You can specify shape, decking, colors, and many other factors.
- Listed modular platform mezzanines include decking, handrail, stairway and landing with beam & beam style construction.
- Standard mezzanines are not designed for point-loading. Contact us for assistance with heavy, point-load applications.
- Steps: 36" wide, 11" deep with 7" rise. Stairway landing is 42" x 42" and features a diamond-plate deck. Other sizes are available.
- Guardrail is 2.5" x 2.5" square tubing uprights with 1.5" diameter horizontal tubing. Depending on building code regulations, mezzanines can have two or three rails.
- Height dimensions refer to clearance below the structure. Heights at the top of platform are typically 1'2" taller.
- Mezzanine platform, stairs and landing are finished in gray. Railing is finished in safety yellow. Other colors are available—contact us for assistance.
- All structural mezzanines require approval drawings.

Code Compliance

These mezzanines meet specifications for structural steel construction set by the American Institute of Steel Construction (AISC), IBC (International Building Code), and OSHA requirements. If your mezzanine requires UBC compliance, contact us. All construction materials conform to American Society of Testing Materials (ASTM) standards. Building permits may be required.

"Most mezzanines are non-seismic outside of California. If you are in an area that requires a seismic-rated mezzanine, we'll help you specify it to meet standards."

—James, Employee-Owner
Since 2013, Vice President

shop talk

MEZZANINE SPECIFICATION

WHAT TO KNOW ABOUT YOUR MEZZANINE PROJECT

"Point loading is a single load or force in a concentrated area—things like pallet jacks with a 2,500-pound load, conveyors, machinery or high-load shelving. We will help you engineer a platform that handles heavy point loads."

—Brad, Employee-Owner Since 2013
Account Executive

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Application: how will you use your mezzanine?

Some mezzanine applications include:

- Storage
- Production
- Equipment positioning and support
- Offices/administrative
- Order picking modules

Will your mezzanine be used to for production equipment? Will it integrate with your conveyor system? Maybe you want to remove certain functions from the floor level. It's critical to have a clear understanding of the mezzanine's role in your operation.

Location: where in your building will it be?

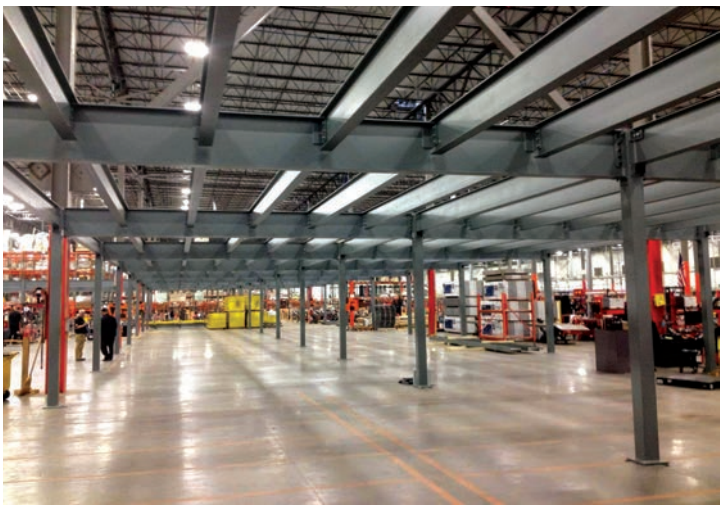
Mezzanines in corners are common, but sometimes they stand free in the middle of a plant. This helps you understand if the ceiling is high enough in that area, what power runs are needed and how it flows with your facility layout and design.

Facility factors: floor, ceiling, layout, columns

- What is your slab floor capacity? The typical floor is 6" thick concrete with 25,000 pounds capacity. When you load a floor with tons of equipment, you must know its capacity. This depends on the thickness of the concrete and how much the soil underneath the slab will compress.
- Ceiling height: Most mezzanines require 14' clear ceiling height, which means the accessible space beneath HVAC equipment, ducts and ceiling structures.
- Building column layout: how many columns, and their locations.

Will your mezzanine be point loaded?

This is a critical question, Point loading is the application of a very heavy load or application of dynamic force on a small area of the mezzanine and must be accounted for in the design process.



What does each column have to bear?

Make sure mezzanine column base plates are correctly sized. The interior columns of the platform will always bear the most weight due to the fact that they support the most square footage. If your slab can support interior column loads, then the exterior columns should not be a challenge. Larger base plates help, but can't compensate for extremely heavy loads. You may need concrete footings in some instances.

What code compliance applies?

You may be subject to IBC2006, IBC2003, or something else. These variations frequently rely on seismic zone, but not always. Well-constructed mezzanines should meet IBC, AISC and ATSM standards. IBC is usually the standard for permitted projects.

Be certain your guardrails and stairs meet requirements. If you classify the mezzanine as a work platform (and it's used as a work area and isn't publicly accessible) requirements vary.

MEZZANINE SPECIFICATION

CAN YOUR FLOOR HANDLE THE LOAD?

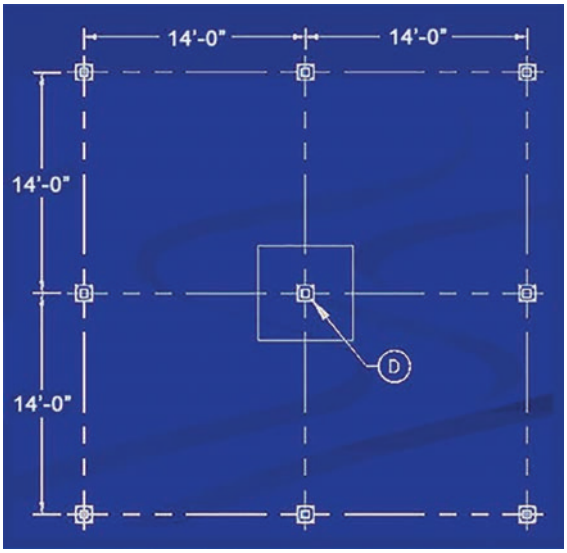
When implementing a mezzanine, be sure your building floor can handle it. Too much weight will cause the floor to crack—or worse. The typical concrete floor is 6" thick and has 25,000 lbs. capacity. When installing a mezzanine or other heavy equipment, you must know the exact floor and ground specifications.

It isn't just about concrete thickness

Floor capacity depends on concrete thickness, but that's not the end of the story. Soil compression beneath the slab compresses also matters. We've seen situations where a 6" was rated at just 10,000 pounds due to the underlying water table. The characteristics of both your floor and of the underlying soil are critical.

Key elements about the platform you are considering must include the platform's load rating and column spacing.

A platform's interior columns bear the most weight because they support most of of the platform's square footage. If your slab supports interior column loads, it can support the exterior columns.



Find the uniformed load

Multiply the mezzanine's square footage by the "uniformed" load. For this example, the uniform load is 125 pounds per square foot.

For building column D in the drawing:

- Horizontal span: 14'-0" + 14'0" = 28'-0"
- Vertical span: 14'-0" + 14'0" = 28'-0"
- Square footage: (28'-0"/2) * (28'-0"/2) = 196 square feet
- Column loading: 196 (sq. ft) * 125 (lbs/sq. ft) = 24,500 lbs.

We can help ensure your mezzanine project is correctly specified, but it all starts on the ground floor

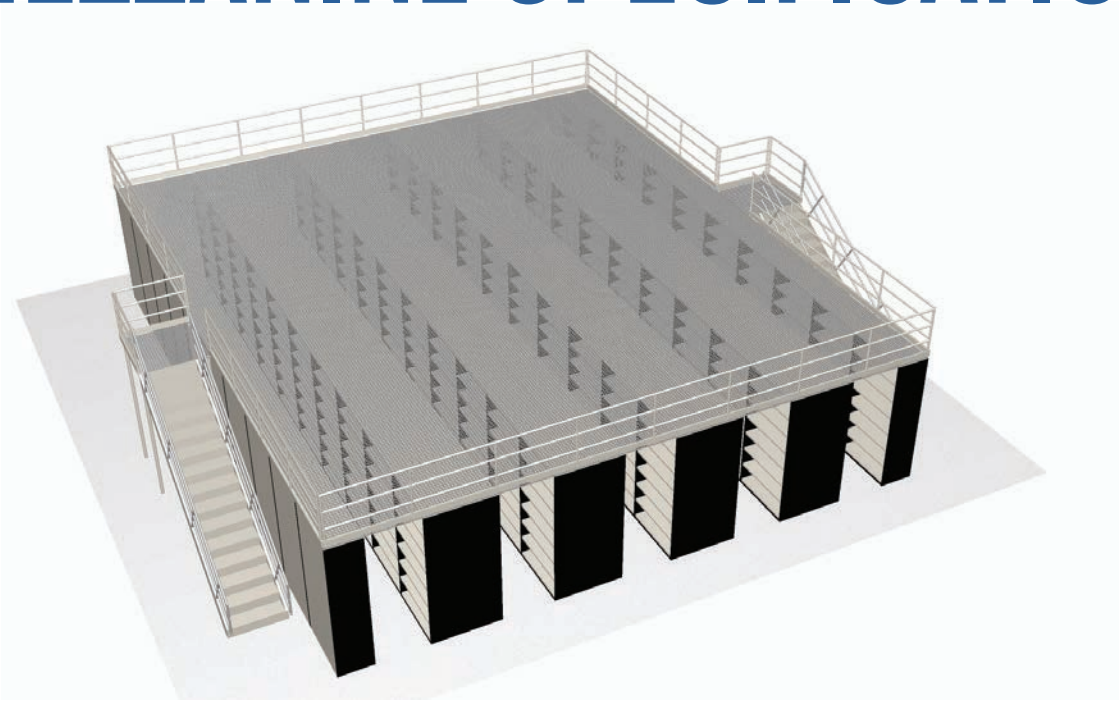
If you use this rule of thumb, with a 125 lbs/square foot platform capacity, you will determine that a 14' x 14' column grid will be the largest standard column spacing for many situations. It usually hinges on geography, the soil and the floor depth. Those are factors you must know as you proceed.

If your situation makes a mezzanine impossible, there are alternatives. You can consult with a building architect about the possibility of pouring footers for the columns. Footers are reinforced portions of the floor. A contractor would cut a portion of the floor out, dig out the underlying soil and pour new concrete that would be capable of handling heavy loads a mezzanine would hold.

Most mezzanine providers aren't architects and cannot say what a floor is capable of handling. You must confirm this information with a qualified architect before the mezzanine project proceeds. This issue is one of the primary reasons that the following statement is included in Cisco-Eagle standard proposals:

> "It is the Purchaser's responsibility to verify that his building will support any loads placed on it by equipment furnished by Seller. Seller will provide appropriate point loading diagrams, which will reflect these loads to the Purchaser as soon as approval drawings are signed and returned to Seller. The Seller will not assume any responsibility for the Purchaser's building integrity. Any building modifications required will be made by Purchaser, or contractors hired by Purchaser."

MEZZANINE SPECIFICATION



"MEZZANINE" VS. "WORK PLATFORM"

It's important to understand whether a mezzanine is permanent construction or capital equipment

People tend to call any elevated platform a "mezzanine", but that may be a mistake. When you are installing or otherwise specifying a platform, you need to be aware that the word "mezzanine" can cost you money and headaches when applied incorrectly.

The critical difference: is it part of the facility?

It boils down to whether or not authorities consider the mezzanine to be part of a building or capital equipment. Many new buildings are built with "mezzanine levels" that are part of the building structure. When a platform is considered part of a building rather than capital equipment, it may have code compliance, bathroom requirements, handicap access, and tax rate and depreciation issues. It boils down to intention – if the structure is typically used like most warehouse or industrial operation facilities, you aren't dodging taxes or accessibility rules,–you're applying them correctly. You need the building permit people and regulators to clearly understand why the structure is being built, and what it's for.

Consider calling your mezzanine project names such as work platforms, elevated platform, storage platform, equipment platform, etc. These are more accurate and descriptive than the overly inclusive, and sometimes inaccurate word "mezzanine".

When not to use the word "mezzanine"

When you want the function of the new installation made clear. If it is a platform where work is being executed, calling it a "work platform" during the bidding process, on installation drawings, on permit applications, etc, provides regulators an accurate definition of the platform's function,.

When the building approval process is onerous. If the new structure doesn't fit the technical definition of a mezzanine (as defined by law), don't complicate the issue by calling it one.

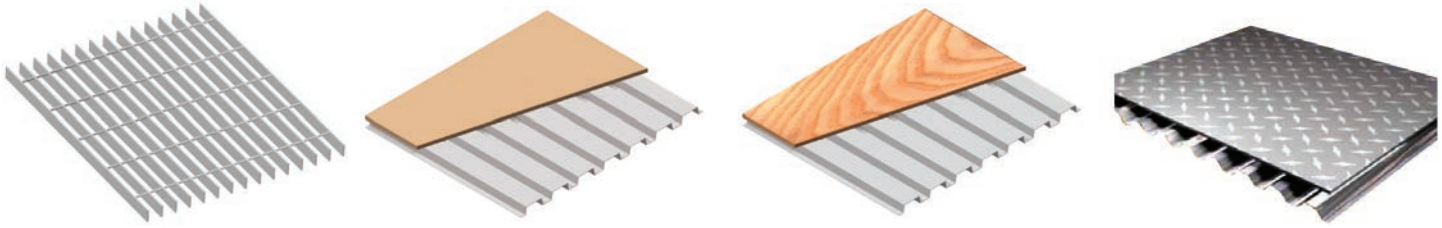
When federal depreciation dollars are important: capital equipment depreciates over seven years rather than 31.

When you don't want to overpay property taxes: In some areas, mezzanines are considered part of the square footage of the facility, and platforms aren't. This can have a hefty impact on property taxes every year.

Be sure you adhere to local building codes and tax laws whenever you execute an elevated structure project; just calling these projects something different won't change the need to adhere to these rules, but being clear as to the type of structure and function can save you headaches as you move forward.

MEZZANINE SPECIFICATION

MEZZANINE DECKING: WHAT SUITS YOUR APPLICATION?



Decking	Description	Comments
Roof Deck & Resin Board	20-gauge painted steel roof deck (18-gauge available) with 3/4" resin board. Roof deck top is unfinished gray; underside is painted white to brighten the area under the mezzanine.	Most economical system. Satisfactory for most mezzanine floor applications. Good for foot traffic and lighter (manually handled) storage requirements.
	20-gauge painted steel roof deck (18-gauge available) with specialty wood (straight edge or tongue & groove). Top is unfinished gray; underside is painted white to brighten the area under the mezzanine.	Recommended for heavier traffic usage and in-plant offices. Can be painted or coated with moisture-resistant urethane.
Bar Grating	1" x 1/8" painted steel bar grating (NAAMM).	Open design for ventilation and fire regulations. Heavier equipment is mounted on bar grating at times. Wheeled carts and pallet jacks cannot be used on grating.
Roof Deck & Floor Plate	20-gauge painted steel roof deck (18-gauge available) with 12-gauge unpainted floor plate. Painted or galvanized steel floor plate over roof deck is also available. Roof deck top is unfinished gray while the underside is painted white.	Recommended where local loads could be abusive or where non-combustibility is required. Can work with pallet jacks or carts without floor damage.
Roof Deck & Specialty Panels	20 gauge painted steel roof deck (18-gauge available) with specialty panels. Roof deck top is unfinished gray; underside painted white to brighten area under the mezzanine.	Use where non-skid or harder surface properties are required.
Roof Deck & Concrete	20 gauge painted steel roof deck* with lightweight concrete (not included). The roof deck top is unfinished gray while the underside is painted white to reflect light and brighten the area under the mezzanine.	For fire ratings and/or chemical applications. (Note: Mezzanine is no longer demountable with this option).
Specialty Grating	Many fiberglass or plastic gratings available.	Use where chemical or non-conductivity properties are required.

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"The most important factors for decking decisions are application and budget. HVAC considerations are important—solid floors don't allow air flow like bar grating does. When a mezzanine covers a large portion of a room, bar grating is a good option for this reason. You shouldn't use grating when small parts are stored or picked, as those can fall through the floor. Solid decking lets you roll pallet jacks or carts on the mezzanine. When it comes to steel floors, diamond plate is more durable but more costly than flat steel. We can help you specify the right decking style for your needs."

—John, Employee-Owner Since 2020
Systems Integration Group

MEZZANINE SPECIFICATION

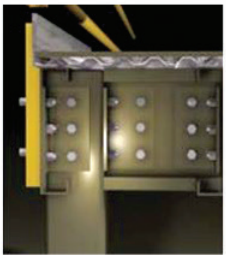
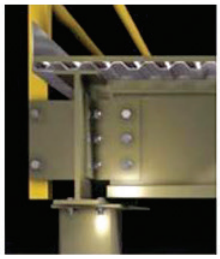
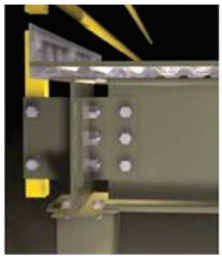
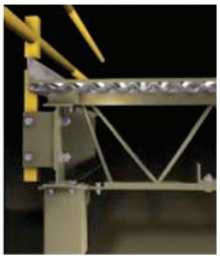
MEZZANINE HANDRAILS

IBC code covers most of the continental United States. A few select areas require UBC compliance, which requires 3 rails on the deck, landing, and stairway. Check local building codes to be certain your area is IBC. If you are under UBC code, upgrade your mezzanine to a 3-rail configuration. We can assist you if you're uncertain of your code status.

Handrail factors for mezzanines

- Handrails must be installed on all sides of a mezzanine open to a floor. Placing the mezzanine in a corner can eliminate part of the required railing because the walls serve as borders. Partitions, vertical lifts, offices, or other structures that guard a ledge may also reduce rail requirements.
- For openings (for forklift access or other reasons), fall protection gates or other safeguards are required.
- OSHA specified 42" handrails with at least two rails. Kickplates are highly recommended.
- Check local code compliance to be sure your handrail design meets requirements. Some local codes, applications or industries may require a third mid-rail or wire mesh panels.

MEZZANINE FRAME OPTIONS

Type:	Bolted C-Section	Beam & C-Section	Beam & Beam	Beam & Bar Joist	Truss Girder & Bar Joist
Size	Small - Medium	Small - Medium	Small - Medium	Medium - Large	Large
Load Cap.	Up to 200 PSF	Up to 200 PSF	Not Limited	Up to 300 PSF	Up to 300 PSF
Span Size	20' (using 12' C-Section)*	20' (using 12' C-Section)	Any size	Any size	Any size
	* If full 20' span is utilized in one direction, the other is limited to 10 ft. (optimal bay size is 11 ft. x 16 ft.)				
Advantages	• Cost for smaller bay sizes are • Cosmetically appealing • Short lead time	• Relatively cost effective • Features longer spans • Short lead time	• Low composite height available • Load capacity not limited • Short lead time	• Wide Spans • Easy to install mechanical, electrical, and sprinkler systems	• Wide Spans • Easy to install mechanical, electrical, and sprinkler systems
Limitations	Spans over 20'	Spans over 20'	Relatively higher costs	Composite Height	Composite Height

MEZZANINE SAFETY GATES

MEZZANINES AND PICK MODULES FALL PREVENTION

Specs, prices and video: visit **www.cisco-eagle.com/mezzgate**

cisco-eagle.com/pickarms

Arms open when pallets are placed, close as unloaded, to help prevent falls. Won't push open from inside.

HOW ROTATING GATES WORK

Ideal where workers must work near a temporarily open edge, such as a forklift loading or unloading from the ground. Rotating gates allow a pallet to be loaded from the platform while the gate is closed to the ledge. Once it's opened, the gate closes, helping prevent access to open space.

When edge gate is open, inside floor level gate closes to create a three-sided enclosure around the load zone and prevents workers from approaching the mezzanine edge. As the inside gate opens, the edge gate lowers to close off the open edge

Swing gates for platforms, catwalks, dock doors, mezzanines and more

cisco-eagle.com/swing-gates

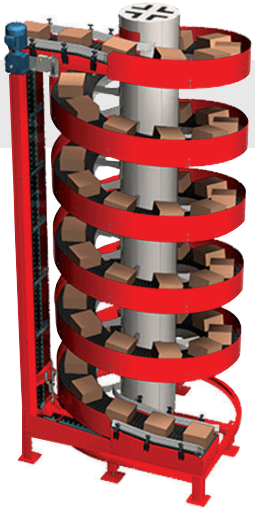
Used as safety gates for ladders, catwalks, mezzanines, elevated platforms, and much more. Easily attaches to existing mezzanine ladder or stair handrail for guarding platforms, catwalks, ladder openings, etc.

MEZZANINE ACCESS OPTIONS

How will you load and unload your mezzanine? The easiest space to recoup in most operations is overhead space. Utilizing that vertical cube with a mezzanine means that you need to move material between levels without creating bottlenecks. This frequently smeans conveyors (vertical or incline), vertical lifts, or forklifts. All of these methods have their advantages and limitations.

SPIRAL CONVEYORS: BEST THROUGHPUT

For video and more, visit **www.cisco-eagle.com/spirals**



- **Space efficiency:** Spiral conveyors are excellent for space efficiency (about the same as a vertical lift, depending on the load) and less than an incline conveyor.
- **Loads:** Utilized primarily for cartons, totes and less than pallet loads. There are pallet sized options, but most applications would not be suitable for unit loads. Can act as a buffer.
- **Throughput:** Spirals are exceptional for tote conveying and high-throughput applications. We have utilized them in snack food applications with tight space and a need for speed. They provide continuous flow. Multiple cartons are always packed into the conveyor, where an incline can only do a few.
- **Cost:** More expensive than incline conveyors, but still economical for the right application.

INCLINE CONVEYORS: FAST AND ECONOMICAL

Prices, tools and specs: **www.cisco-eagle.com/incline**

- **Space efficiency:** Consumes floor space. In the right application, the lost space can be minimized. Most applications have a maximum 30° incline angle.
- **Loads:** Excellent for cartons or cases. Belt styles (flat, cleated, roller bed) are available for various types of loads. Capacities to 225 lbs./foot.
- **Throughput:** Very strong. They do not act as a buffer, like spiral conveyors do.
- **Cost:** The most economical of these options.

VERTICAL LIFTS: SPACE EFFICIENCY HIGH CAPACITIES

Detailed information, blogs & video: **www.cisco-eagle.com/vrc**

- **Space efficiency:** VRCwwws occupy a relatively small footprint - ranging from 3' x 3' to 30' x 30' for standard sizes (and the flexibility to configure just about any necessary size).
- **Loads:** VRCs can convey cartons, pallets or even people in limited circumstances. You can specify a VRC that can lift about anything - a car, a fully-loaded pallet, a container - in weight ranges that can exceed ten thousand pounds. Platform sizes are highly configurable, meaning you can convey multiple pallets or stacks of cartons.
- **Throughput:** VRCs lack the product density of a spiral system, but that's not their role. They're fast enough given the load profiles they are tasked with.
- **Cost:** VRCs are relatively expensive, but deliver an excellent multi-level experience.

MEZZANINE SPECIFICATION

Please let us help you—skip any questions you can't answer; we can walk you through the process. If you have CAD drawings or other facility sketches, those will also help. List any special jobsite conditions, including cutouts, obstructions, or specialized loads or situations.

—Missy, Employee-Owner Since 2013
Web Sales & Service

shop talk

Fax: 972-406-9577 • Email: 24hours@cisco-eagle.com • Call: 888-877-3861

About you

Name: _____

Company: _____

Phone: _____

Email: _____

Mezzanine and facility factors

Length: _____(feet) Width: _____ (feet)

Column spacing: ____ x ____ (ft.) or ☐ most economical

Application:

☐ Storage ☐ Office ☐ Shelving ☐ Pallet Jack ☐ Racks

☐ Other : _____

_____

Heights: Deck _____ Clear: _____ Clear Ceiling: _____

Capacity: max. live load : _____ (lbs./ per square foot)

125 lbs. is typical; contact us for assistance for heavier loads.

Guardrails and Kickplates: _____ (linear feet; excluding landings, stairs and gates; estimated)

Cates (many safety gates are available)

Size: _____ (6' is standard)

Gate Type: ☐ Overhead (safety) ☐ Double Drop (safety)

☐ Lift-Out ☐ Sliding ☐ Swinging ☐ Tilt

Decking:

☐ None ☐ 1.5" B-Deck ☐ Bar Grating

☐ 1.5" B-Deck & Resin Board ☐ B-Deck & 12-ga.

☐ Galvanized Floor Plate ☐ Unpainted Floor Plate

☐ Other: _____

Applicable codes or standards

☐ BOCA ☐ SBBCI ☐ UBC ☐ IBC

☐ Other: _____

☐ OSHA: (Does not imply code compliance)

Stairs (36"W standard)

☐ Straight ☐ L-shape ☐ U-shape

#Internal: _____ #External: _____ Width: _____(inches)

☐ Closed tread/open riser ☐ Open tread/riser

☐ Closed tread/closed riser

☐ Other: _____

#Landings: _____(3'6"W x 4'L is standard)

Other notes

STRUCTURAL MEZZANINE

SKETCH YOUR MEZZANINE

Fax: 972-406-9577 • Email: 24hours@cisco-eagle.com • Call: 888-877-3861

Name:_____ Company: _____

Phone:_____ Email: _____

Comments:

Sketch if needed:

RACK-SUPPORTED MEZZANINES

HIGH-DENSITY STORAGE APPLICATIONS

Rack supported mezzanines use pallet rack structure below the mezzanine

Sometimes called "catwalk systems", these mezzanine configurations are high bay pallet racking with walkways in the aisles between the rack. These racks can be fitted with flow tracks for high-density order picking and mixed storage of pallets along with hand-loaded items in just about any storage scheme you can imagine.

Other configurations include open mezzanines with floor decking that rests on the pallet rack upright columns for support. With pallet rack below the floor, the frequency of support columns is higher, making the mezzanine stable.

The advantage of this type mezzanine is the efficiency of using space above your pallet rack to add square footage to your facility. You now have additional floorspace in which to place more pallet rack, office space, work zones or just about anything you like. You gain formerly unusable space by accessing vertical space in your facility to extend your storage or manufacturing processes.

COMPONENTS & DESIGN

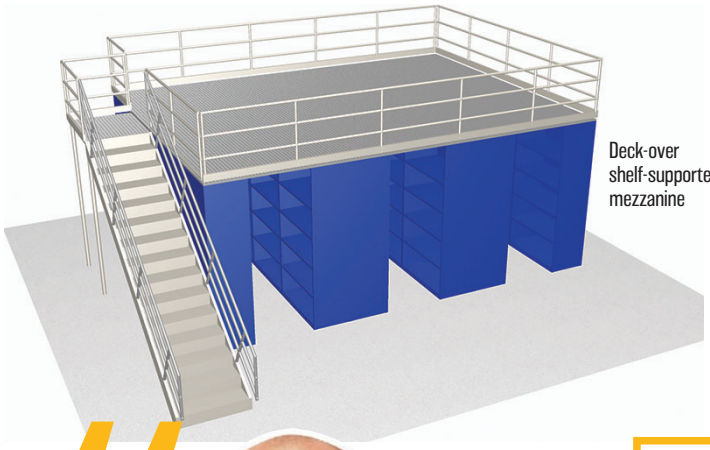
Rack supported mezzanines provide many options in how to use the space above the pallet rack in your facility. They're an economical choice compared to structural mezzanines.

Other elements include handrails, catwalks, pallet gates and decking materials. Pallet gates and catwalks make loading, unloading and accessing more convenient and efficient.

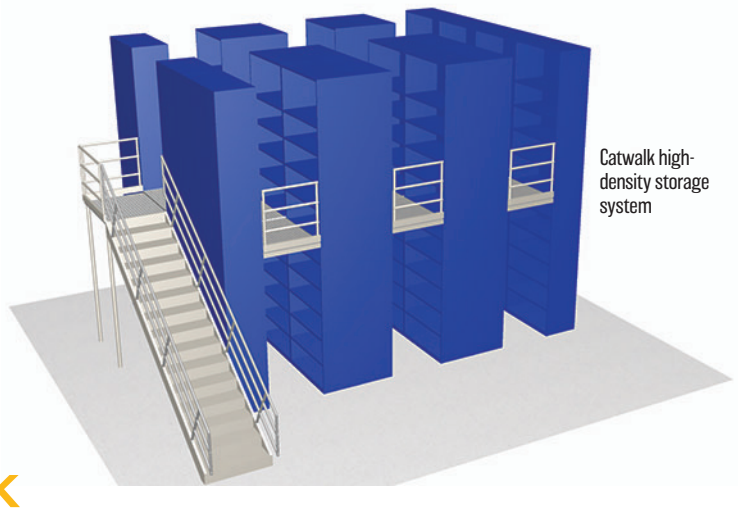
Consider materials movement methods like chutes or conveyors while planning your mezzanine. Traditional forklift placement may not be feasible depending on whether you move loads by pallet loads or less-than-pallet loads.

SHELVING MEZZANINES

When you need to organize parts, tools or inventory in concentrated space, shelf-supported mezzanines are an ideal solution. Shelf-supported mezzanines pack more parts, bins and other stored items into a small area by using the vertical cube—and they make accessing those parts easier and more organized.



Deck-over shelf-supported mezzanine



Catwalk high-density storage system

shop talk

"These mezzanines support platforms with shelving and pack in storage positions for parts, inventory and more. **Deck-overs** top shelving with platforms that host offices, work cells or whatever else you need. **Catwalk systems** extend the shelves above the platform for more storage packed over walkways. Pickers work on the floor or on top of the mezzanine for access and organization."

—McKinnon, Employee Owner Since 2020
Account Executive

MULTILEVEL PICK MODULES

HIGH-DENSITY, ACCURATE, HIGH-THROUGHPUT SYSTEMS

"Pick modules give you first-in, first-out rotation and increase picking productivity. Plug bay of carton flow into a series along a conveyor line on multiple levels, and you have high-density storage that drives fast, accurate order picking in a compact vertical footprint."

—Bryan, Employee-Owner Since 1996
President and COO

shop talk

Lots more information: visit **www.cisco-eagle.com/pickmodules**

Scaled to your needs

While there is no such thing as a standard pick module, they share common traits. Pick modules integrate various storage solutions inside multi-level work platforms that move product efficiently through a distribution facility. These levels can include static storage, flow storage and conveyors.

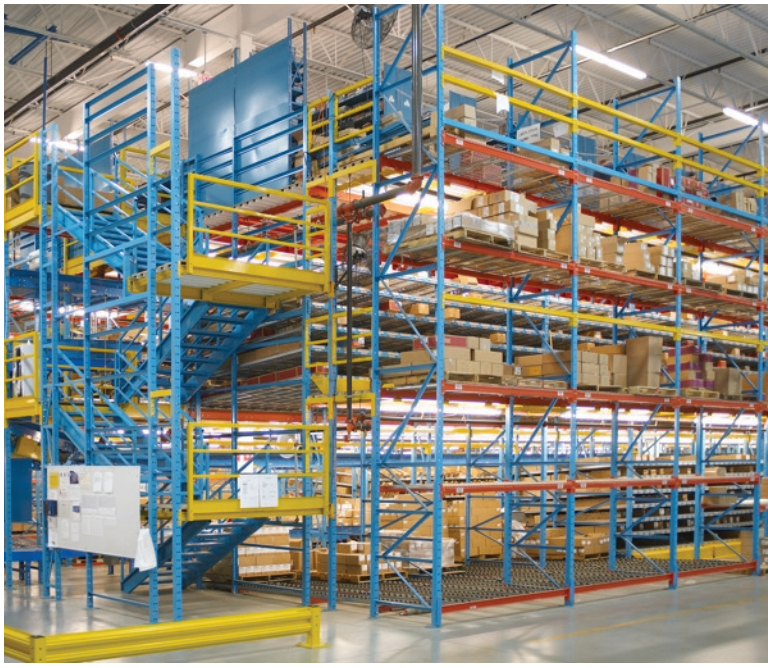
The anatomy of a pick module

These order picking systems are multi-level, and combine elements of mezzanines and work platforms with conveyors, spirals, carton flow racks, pallet flow, static racks, and sometimes carousels, or other equipment that delivers loads for pickers on each level.

They produce faster picking in less space than floor level storage. This results in significant cost savings for broken pallet, full-case or open-carton picking functions. This reduces wasted "walk time" for pickers, who are situated in areas where they spend more time picking orders and less time finding SKU's. Orders are typically conveyed away from the pickers to packing and shipping. This reduces picking times and increases accuracy. You can integrate pick-to-light or voice directed picking into your system to provide fast, accurate order fulfillment.

How can a pick module enhance your business?

- **You can enforce inventory rotation through first-in, first-out picking.** Replenish inventory from the load side and your pickers are always presented product in order.
- **Save space.** In a pallet picking operation, you'll save about 35% in a typical 6-deep application. If you're picking from cartons or totes, the savings are even better compared to shelving. Saving space delays having to move to larger facilities or the need for wholesale redesign because pick modules open up floor space to other uses. The more vertical cube you can utilize, the more space you'll save.
- **You can reduce labor expenses.** It's easy to see that when you concentrate storage and picking operations, you eliminate nonproductive "walk" time. Order pickers are picking - not walking - for more hours every day. This allows you to greatly reduce the amount of time pickers spend searching and walking.
- **You can replenish your inventory easier than ever.** Because you're concentrating picking operations, you can focus inventor into the system the way you want it.



CROSSOVERS & CATWALKS

shop talk

"What type of crossover? You can choose welded, bolted or modular. Welded crossovers are durable and bear heavyweight capacities, but are hard to move once installed. They're typically less expensive and can be fabricated to most any shape or size. Modular crossovers are lighter and easy to move and reassemble. Modules can be taken apart and reconfigured as needed. We'll help you figure it out."

—Amanda, Employee-Owner Since 2013
Systems Integration Engineer

Prices, Specs and Downloads: visit **www.cisco-eagle.com/crossovers**

ErectAStep lets you assemble modular platforms, crossovers, catwalks that fit your exact need

Create maintenance platforms, elevated work areas, ladders, catwalks, crossovers, and other structures.

- Easy to assemble, reconfigure, move, and install
- Can ship in days—unlike fabricated solutions that take weeks
- Add components easily and quickly
- Ideal for areas that would be difficult to install welded systems (rooftops, pits, difficult to reach places

Welded and bolted crossovers

When conveyor, pipe, channels, conduit, machinery, and other obstacles make getting from one place to another difficult, consider a crossover. We can help you design and implement structures to help make any part of your operation accessible.

- Welded platforms are less costly than modular solutions, but may take longer to ship or specify
- Welded platforms can be built to nearly any specification or design standard
- Be sure your system is OSHA compliant (the same rules for mezzanine handrails applies to crossovers/platforms
- Ladder style crossovers are ideal for conveyor applications, where space is tight in a production or picking line
- Look at 45° crossovers for "u-shapes"

www.cisco-eagle.com/mezzanines

888.877.3861 toll-free

EXCEPTIONAL SERVICE BY EMPLOYEE-OWNERS