Cogan®
A Tradition of Quality Since 1901

Course #1

Mezzanines

Increase Floor Space

The essential knowledge and skills required to sucessfully navigate the entire lifecycle of a mezzanine project.

Chapter 1

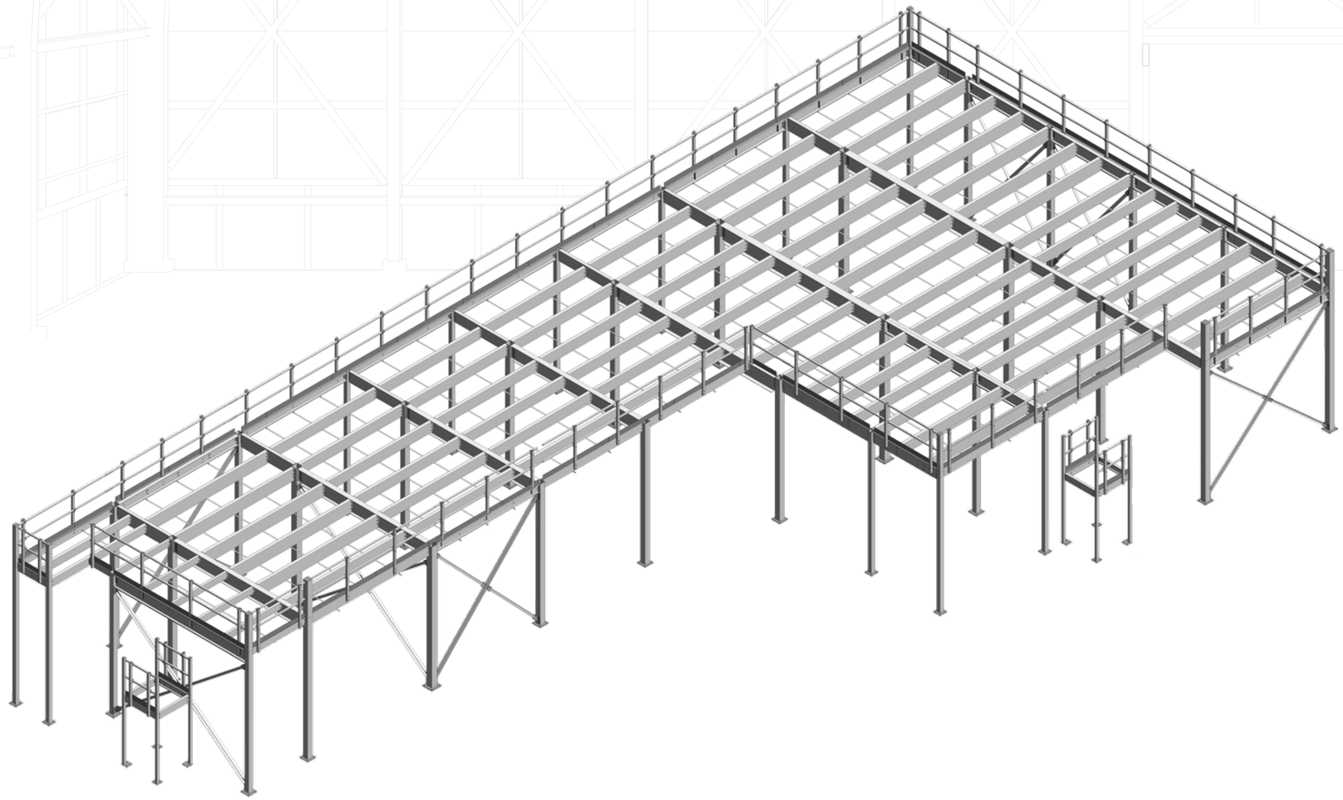
Introduction

- What is a Mezzanine?
- Mezzanine Advantages
- Mezzanine Uses & Applications
- Building Codes & Standards



What is a

Mezzanine?



Maximize overhead space!

mezzanine noun

mez·za·nine

Most commericial buildings feature high ceilings that can easiliy accomodate a second level. A mezzanine is a self-supporting raised platform or intermediate floor inserted between the main floors of an existing facility. It's neither the ground floor nor the top floor, but rather a practical addition in the middle.

Mezzanine floors can be built to the exact size, shape, and configuration required for your specific application, making them incredibly adaptable to different settings. Whether you need extra storage space, additional workspace, or a combination of both, mezzanines offer a flexible solution to maximize your square foot space.

Did you know?

Mezzanine is derived from the word *mezzo* which means 'half' in Italian.

Mezzanine Advantages

5 Benefits of a Mezzanine Floor

#1



Optimize Space

Make the most of your available square footage. By adding an intermediate level between the floor and ceiling of your existing facility, a mezzanine utilizes the valuable vertical space that is so often overlooked. Gain up to 40% more work space!

#2

Economical

Far less expensive and time consuming than moving or new construction, a mezzanine has some major financial advantages. Increase capacity, reduce energy costs, limit downtime and benefit from accelerated tax depreciation.



#3



Flexibility

In an ever-evolving business landscape, having options is important. Since a mezzanine is not part of your building's permanent construction, it can be disassembled, moved, and expanded at any time to grow with your changing needs.

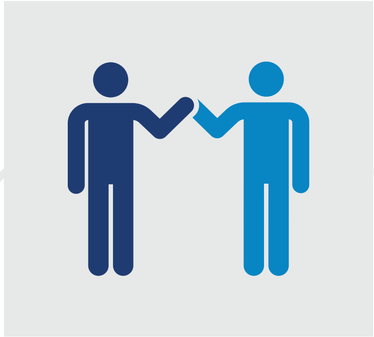
#4

Fast Assembly

An intelligent modular design means nothing installs faster than a Cogan mezzanine. Built to your exact specifications, we work around all existing equipment and obstructions so activity beneath the structure can continue without disruption.



#5



Longevity

If you're in the market for a long-term relationship, a Cogan mezzanine is your perfect match. Backed by our Limited Lifetime Structural Warranty *(see Chapter 6)*, you can rest easy knowing that your mezzanine will stand the test of time.

Uses & Applications

The Possibilities are Endless!

Don't think mezzanines are for warehouse storage only! Use a mezzanine to create additional space for an in-plant office, exercise equipment in your fitness center, extra seating in your restaurant, an observation platform in a museum, display aisles in your retail store, or a storage area in your distribution center. The possibilities are endless.



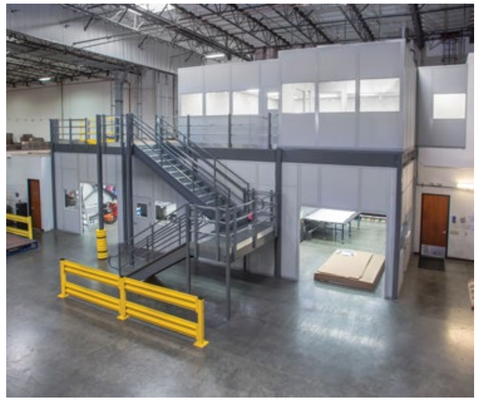
DISTRIBUTION CENTER MEZZANINE



EQUIPMENT PLATFORM MEZZANINE



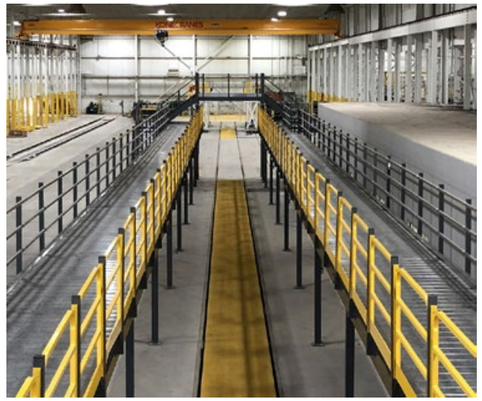
INDUSTRIAL CATWALK MEZZANINE



INPLANT OFFICE MEZZANINE



MULTI-LEVEL MEZZANINE



TRAIN MAINTENANCE MEZZANINE

Explore more applications in the Book of Ideas.



What are building codes and why do they matter?

Building codes are the minimum design and construction requirements to ensure safe and resilient structures.

You can trust that a structure built to code is keeping up with the latest findings and advances in technology. Based on a solid foundation of decades of construction knowledge and experience, model building codes are updated every three years and incorporate new information.

These codes reduce casualties, costs and damage by creating stronger buildings designed to withstand disasters. They also help communities get back on their feet faster by minimizing indirect costs such as business interruptions and lost income.

Source: FEMA.gov

Building Codes & Standards

Your Safety is our Top Priority

No matter where your project is located in North America, you can rest assured that all Cogan mezzanines are built in compliance with the highest safety standards and building code regulations.

Below is a list of the regulatory bodies that govern how we design and build our mezzanines:

American Institute of Steel Construction *(AISC)*

American National Standards Institute *(ANSI)*

American Society of Civil Engineering *(ASCE)*

American Society for Testing & Materials *(ASTM)*

Research Council on Structural Connections *(RCSC)*

American Welding Society *(AWS)*

Steel Deck Institute *(SDI)*

International Code Council *(ICC)*

Occupational Safety & Health Administration *(OSHA)*

National Research Council of Canada *(NRCC)*

Canadian Institute of Steel Construction *(CISC)*

Canadian Standards Association *(CSA)*

Canadian Welding Assoication *(CWB)*

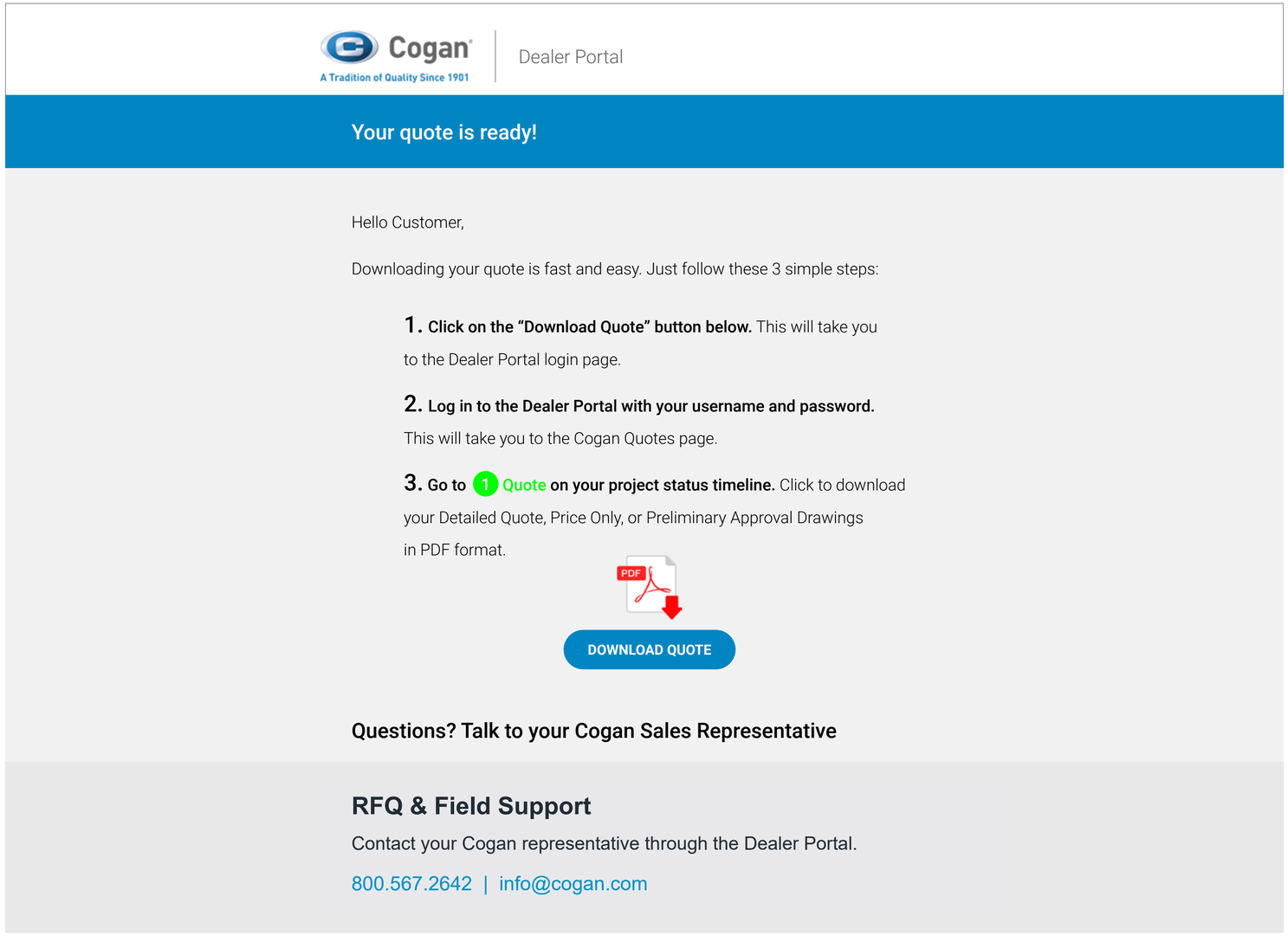
Tip:

Click on any logo to visit the association's website.

Chapter 2

Quoting Your Mezzanine

- Meet Your Team
- Requirements for a Successful Quote
- New RFQ Worksheet *(PDF)*



** The above email notification is for example purposes only.*

Meet Your Team

RFQ, Estimation & Beyond

Cogan supports your project from the first quote through installation. Work with your assigned representative and the appropriate team for sales, estimating, field assistance and after-sales service.

RFQ Team

Quotes, revisions and purchase orders. Delivery dates, quality control questions and after-sales service.

Sales Support

Product training, sales assistance and new dealer onboarding across the USA and Canada.

Estimation Team

Complex projects, PE stamped plans and conference calls to review your project requirements.

Field Support

Site measurements, project assistance, sales training and product samples for your local needs.

Contact your assigned Cogan representative through the Dealer Portal.

800.567.2642 | info@cogan.com | www.cogan.com

Requirements for a Successful Quote

Getting Down to Details

When it comes to quoting your mezzanine, every detail counts. The better we understand your project, the more accurate our estimate will be, reducing the need for multiple revisions. Let's make sure we nail it the first time, so you can impress your customers and move forward with confidence. Ready to get started?

What is the mezzanine being used for?

This is an important question. Knowing your mezzanine's intended use will lay the framework *(literally)* for the entire project.

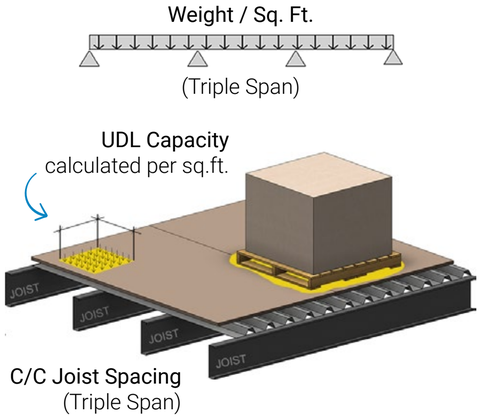
Application determines load capacity, which is the first piece of the puzzle we'll need to establish the minimum structural requirements for your mezzanine. Other factors, such as height, column spacing, seismic conditions, and bracing complete the picture. We'll cover those details as we delve deeper into this section.

First, let's gain a better understanding of load capacity and the three types of design loads that influence it. This way, we can ensure we're building a safe and sturdy structure from the ground up.

#1 3 Types of Design Loads

Uniformly Distributed Load (UDL)

A uniformly distributed load (UDL) is a force that is applied evenly across the entire length a support.

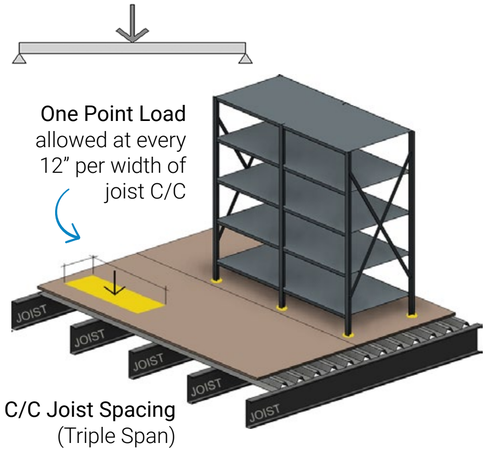


A loaded pallet will uniformly distribute its load because of its multiple transfer points.

e.g. 1000 lbs of material on a 3' x 3' pallet = 111 PSF

Point Load (PL)

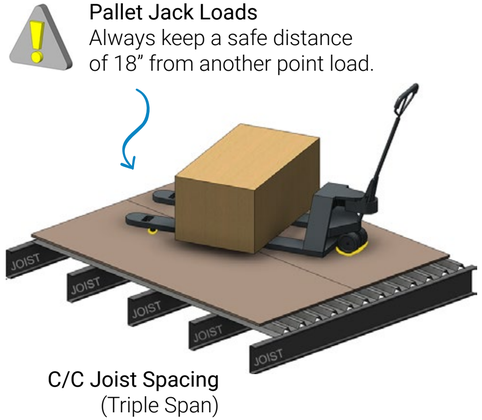
A point load is a force that is applied to a concentrated point on the support, increasing the possibility of deflection.



Machine, conveyor or racking sitting on legs will distribute point loads because of their small load transfer surface.

Pallet Jack Load (PJL)

A pallet jack load is a type of moving point load applied by the use of pallet jacks.



The wheels of a pallet jack will transfer point loads wherever it moves across the surface of the mezzanine.

Tip: Find complete capacity tables on our website: www.cogan.com/Products/Mezzanines/Design-Load/

#2 Load Capacity

The design loads placed on your mezzanine will determine its required load capacity.

To make this process easier, we've outlined the most common loading scenarios and examples of their corresponding applications. Use this as reference when considering the capacity needs for your mezzanine.

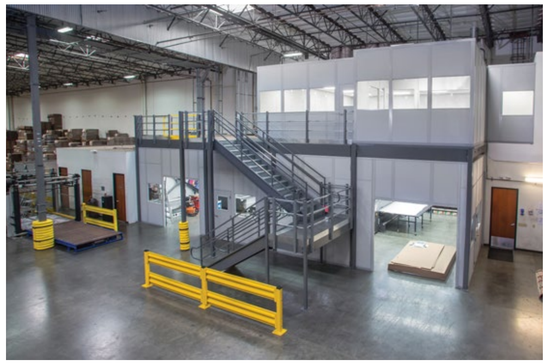


Most popular

125 PSF

1,500 lbs on a 40' x 48' pallet

Example: Light-duty storage and regular foot traffic. Meets most loading requirements.



135 PSF

75 PSF Live Load + 60 PSF Dead Load

Example: Always required for inplant offices and similar modular applications.



150 PSF

2,000 lbs on a 40' x 48' pallet

Example: Medium-duty warehoue storage, such as shelving units or racking.



200 PSF

2,500 lbs on a 40' x 48' pallet

Example: Heavy-duty capacity for large machinery and equipment.



250 PSF

3,000 lbs on a 40' x 48' pallet

Example: Ultra capacity for extremely heavy-duty machinery or industrial equipment.



Live Loads *vs* Dead Loads

Dead loads are the permanent, non-moving loads that your mezzanine must support. Some common examples include walls, floors, and any permanent fixtures, such as heavy machinery, that are built on top of the mezzanine. Dead loads contribute to the overall weight of the mezzanine and play a role in determining the size and strength of its structural components.

Live Loads are temporary or moving loads that can change in weight and location over time. Some examples include people walking, furniture, shelving, stored materials, and in-plant vehicles. Live loads create additional stress and deflection on your mezzanine. We account for live loads when quoting your mezzanine to ensure that it can safely support these variables without failure.

Where is the mezzanine being installed?

Location, location, *location!* This isn't just a fun catch phrase from your favourite HGTV show; it's the next big question along our path to a successful project. To properly quote your mezzanine, we need to know where it will be installed. As in the building itself and the actual physical location on planet Earth (we haven't figured out conditions on the Moon yet, but just give us some time).

This is important for two reasons:

First, we need to know about the stuff inside the building so we can design around obstructions and place major structural elements where they won't disrupt activity below.

Second, we need to know the city and zip code to account for seismic conditions in the area.

With that in mind, let's press forward! In the next pages, we'll delve deeper into the structural details of your mezzanine. We'll also take a closer look at bracing options and how seismic factors play a role in their selection process.

#3 General Structure

3.1 Location

Just in case we didn't stress this enough before, tell us where your project is going:

City	*State*	*Zip Code*

3.2 Mezzanine Size

How big is your mezzanine? Is it a basic rectangle or a special shape with cutouts? We'll need to know the overall dimensions. Consider any funky walls, irregular angles, equipment, and other obstructions that might affect the design.

☐ Length x Width

☐ Special *(please provide a sketch)*

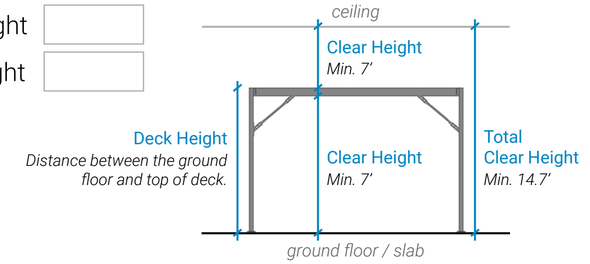
Length	x	Width

3.3 Mezzanine Height

This measurement can be split into two categories: clear height and deck height. **Clear height** is the space above and below the mezzanine, which must be a minimum of 7 feet. **Deck height** is the distance from the ground floor to the top of the mezzanine decking surface.

☐ Clear Height

☐ Deck Height



3.4 Column Spacing

Column spacing has a big impact on the final cost of your mezzanine. Longer spans mean larger beams and a heftier price tag. For this reason, we will always quote the most economical column spacing. However, specific column placement may be required to work around existing obstacles. If this is the case for your project, please provide the location of any obstructions. This will allow us to design a column layout that accommodates both your floorplan and your budget.

☐ Most Economical *(20' spans or less)*

☐ Specific *(please provide a sketch)*

3.5 Building Code Compliance

Based on your project's application and local jurisdiction, you will need to follow a specific building code. Are you planning to get a permit? (We highly recommend that you do – *see Chapter 4 for more on permits*.) If you are, then PE Stamped Plans are a must. Be sure to share these details at the quoting stage to avoid added costs when your project reaches Engineering.

☐ OSHA (Occupational Safety & Health Administration)

☐ BOCA (Building Officials & Codes Administrators)

☐ IBC (International Building Code)

☐ Other *(please specify)*

☐ PE Stamped Plans required ☐ *Yes* ☐ *No*

Tip: If there's doubt, sketch it out.

We strive to put our best price forward and quote your project with minimal revisions. If you have a complex layout, including a sketch with your request is the best way ensure clarity.

3.6 Bracing: Load Transfers

Live loads, dead loads, seismic loads, and climate loads (for outdoor installations) make up the vertical and horizontal forces that determine the bracing requirements for your mezzanine.

Vertical loads (i.e live loads and dead loads) affect every aspect of the mezzanine structure. These are transferred from the decking to the joists, from the joists to the beams, from the beams to the columns, from the columns to the base plates, and from the base plates to the concrete. On their own, vertical loads can exert a tremendous amount of pressure on the mezzanine structure.

Horizontal loads (i.e. seismic loads and climatic loads) are the external pressures applied at deck height that can force a mezzanine to move or sway back and forth. Braces are designed to transfer the horizontal loads to the base, stabilizing the structure and ensuring comfort for people on top of the mezzanine. The effectiveness of the braces is increased as the unbraced height is decreased.

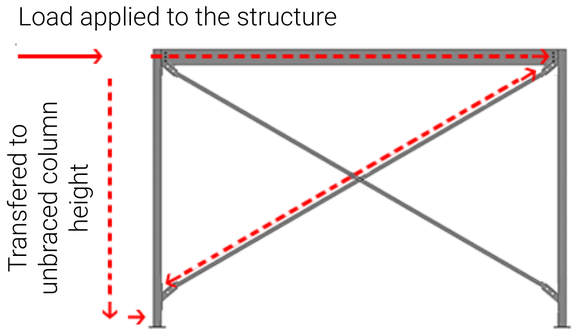
The illustrations shown here demonstrate the order of a typical load transfer and how a proper bracing design can ensure the structural integrity of your mezzanine.

Important: It is always the sole responsibility of the client/owner to verify the area where the mezzanine is being installed and to provide proper anchor conditions. In situations where concrete depth is inadequate, it may be necessary to pour footings or to otherwise modify the slab.

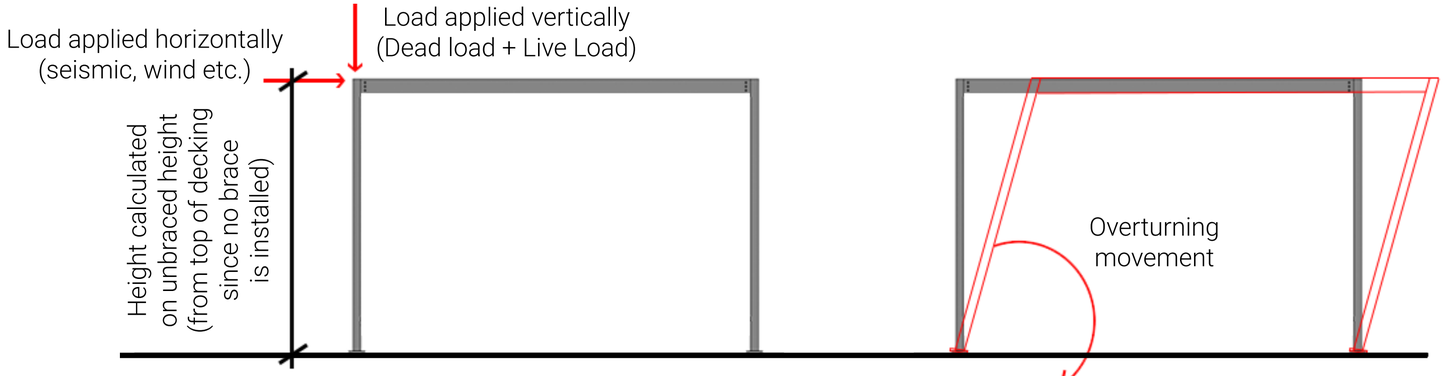
Calculations provided by Cogan are to serve as guidelines only. Cogan Engineers can only determine the number of anchor bolts required per column and the concrete depth necessary to develop the resistance of those anchors. Many variables may affect individual site conditions and therefore negate the calculations provided by Cogan Engineers. Cogan is not responsible for certifying or analyzing the concrete slab capacity and integrity where the mezzanine columns are to be installed.

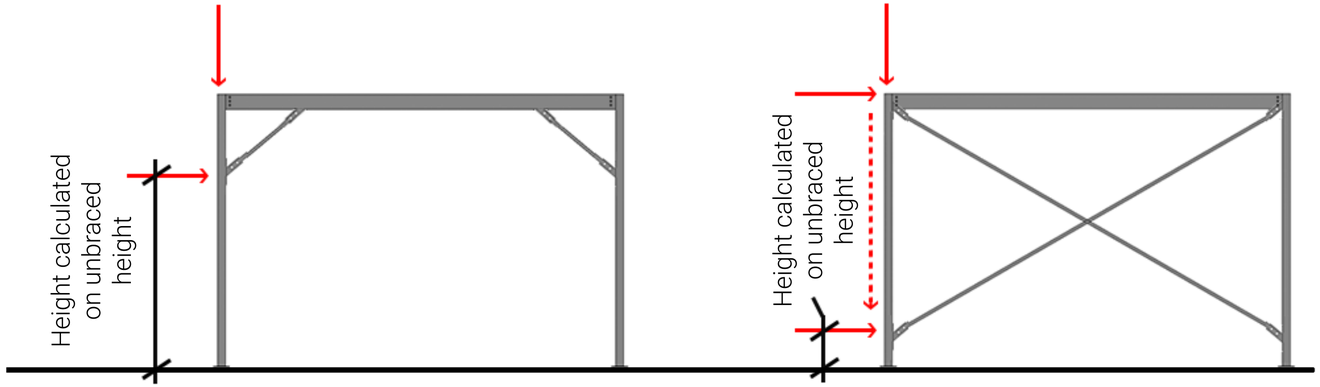
TYPICAL LOAD TRANSFER

DECK → JOIST
JOIST → BEAM
BEAM → COLUMN
COLUMNS → ANCHORS
ANCHORS → SLAB/FOOTING



Braces are designed to transfer the horizontal loads to the base, which minimizes the movement of the mezzanine and limits sway.





Understanding Seismic Zones

Although earthquakes can occur in all regions of the United States, certain areas have a higher chance of experiencing ground motions caused by earthquakes. These regions are called **seismic zones**. This is usually due to the area's proximity to a fault line, such as the well-known San Andreas Fault in California.

Not all seismic zones are created equal however, and some are more active than others Earthquake potential is calculated based on probability with expected ground motions referred to as **seismic hazards**. The stronger the ground motion, the greater the hazard. For example, a magnitude level 3 earthquake can normally be felt in the immediate surrounding area, while a magnitude level 5 earthquake has a much larger scope and is strong enough to cause damage. Regions most likely to be damaged by hazardous ground motions are logically dubbed **seismic hazard zones**.

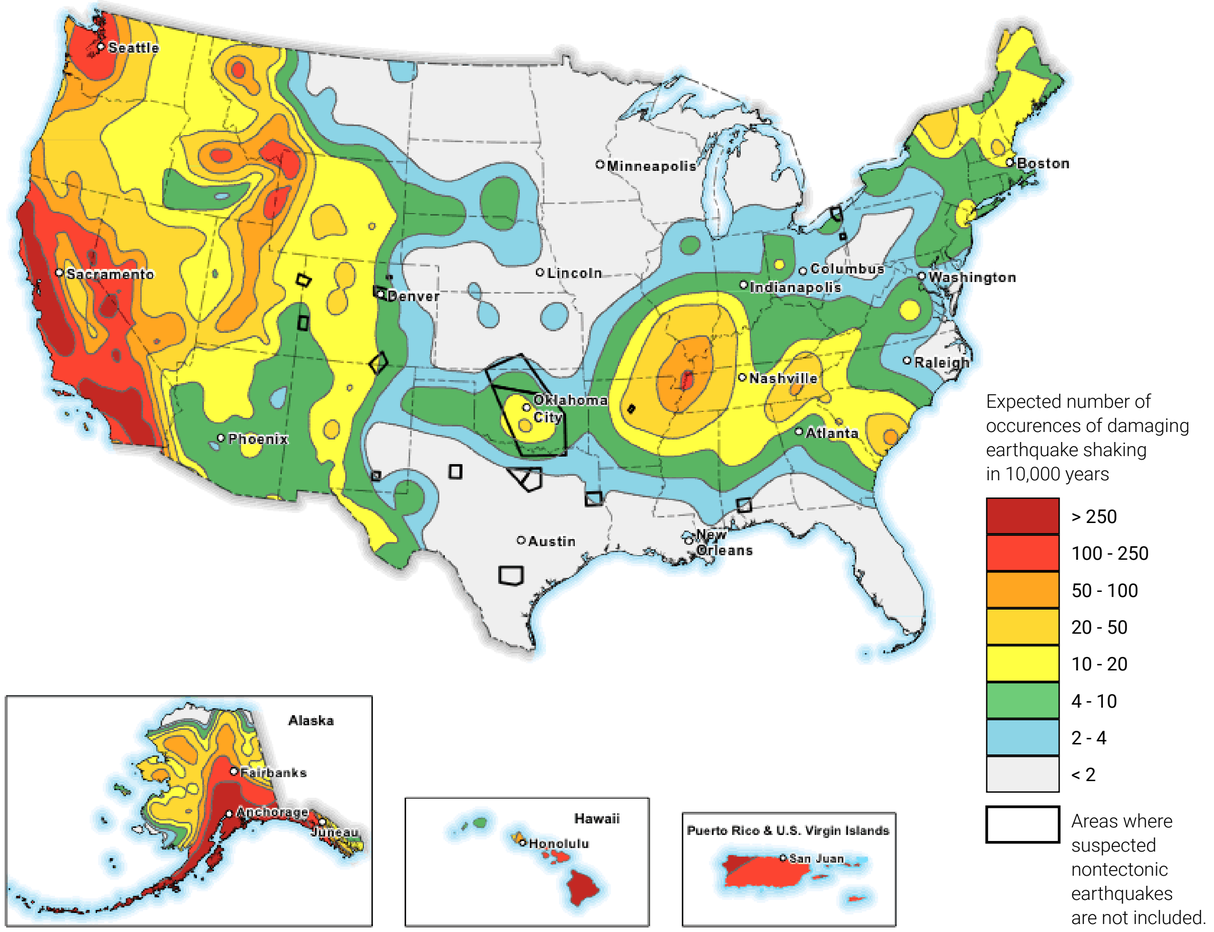
How does all this affect my mezzanine you might ask? Great question.

For the cities and towns that populate these seismic-prone areas, more robust constructions practices are essential to ensure that buildings and other structures can withstand the forces generated by earthquakes. As it pertains to mezzanines, this could mean a mandatory x-brace design and stricter anchoring requirements, all calculated in accordance the latest seismic data.

High hazard does not have to mean high risk. When seismic models are taken seriously, we can build infrastructures that preserve public safety, save human lives, and enhance community resilience.

Curious to know about the seismic conditions in your area? Refer to the map on the right.

Frequency of Damaging Earthquake Shaking Around the U.S.

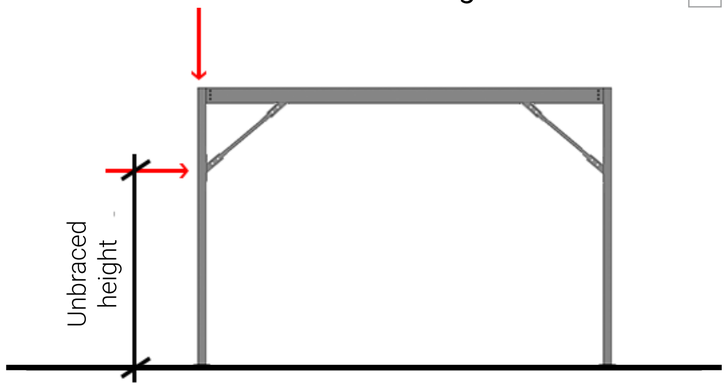


Source: USGS.gov

3.7 Bracing: Options

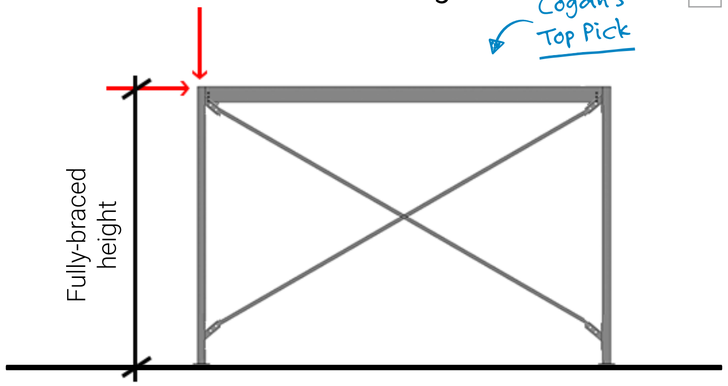
A Cogan mezzanine will always include one of three bracing options: knee-bracing, x-bracing, or structural knee-bracing. When choosing the right one, it's important to consider your overall budget as costs can vary widely based on your mezzanine's application and installation conditions. Keep in mind, we'll do our best to accommodate your bracing preference, but our top priority is the structural integrity of your mezzanine. For safety reasons, our engineers will make the final decision on the brace design. Only x-bracing and structural knee-bracing are acceptable in certain seismic zones.

Knee-Brace Design



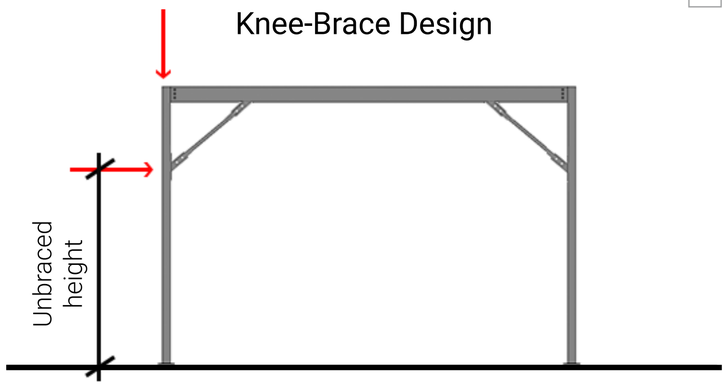
- While standard knee-bracing might be the most affordable option for smaller mezzanines, it doesn't work well for larger structures. Knee-bracing creates large overturning loads, often requiring footings to be poured under each column baseplate. Additionally, columns must be built with more steel to counterbalance the overturning loads, resulting in a more expensive structure overall.
- Each column connection must be reinforced with a knee-brace. (i.e. If 4 beams are connected to one column, then 4 knee-braces are required – one per beam connection.)
- Standard knee-bracing is not engineered to withstand overturning movement or seismic loads.

X-Brace Design



- An x-brace design is both the least expensive and most effective option for medium to large-sized mezzanines. By reinforcing the entire height of the structure, x-bracing eliminates overturning loads and provides more favorable anchoring conditions. As result, footings are normally not required.
- X-braces must be installed on a minimum of 3 sides of the structure for complete strength and resistance. We will always try to place x-braces against a wall or where they will least disrupt circulation beneath the mezzanine.
- X-bracing is engineered to eliminate overturning movement and can withstand seismic loads in any seismic zone.

Structural Knee-Brace Design



- Structural knee-bracing is usually the most expensive brace design for medium to large-sized mezzanines. This is due to its full clear spans, allowing for fluid circulation beneath mezzanine. Structural knee-braces are engineering to eliminate overturning loads. As a result, footings are normally not required.
- Each column connection must be reinforced with a knee-brace. (i.e. If 4 beams are connected to one column, then 4 knee-braces are required – one per beam connection.)
- Structural knee-bracing is engineered to eliminate overturning movement and can withstand seismic loads in any seismic zone.

#4 Mezzanine Components

4.1 Handrail

Approximately how many linear feet of handrail will you need? Sections that are flush against walls do not require handrail.

We offer three rail options: 2-rail, 3-rail, and wire mesh. In most cases, application and building code compliance will determine the required rail type. For example, wire mesh handrail is mandatory for public access mezzanines.

4.1.1 Quantity

- ☐ All Sides
- ☐ 1 Side (walls on 3 sides)
- ☐ 3 Sides (wall on 1 side)
- ☐ Special *(please provide a sketch)*
- ☐ 2 Sides (walls on 2 sides)
- ☐ Approx. Linear Feet

4.1.2 Rail Type



☐ 2-Rail



☐ 3-Rail



☐ Wire Mesh

4.1.3 Specifications *(all rail types)*

- **Post Height:** 42” • **Rail Height:** 4” • **Kickplate Height:** 4”
- **Post Material:** Hollow Structural Tubing 2 1/2” x 2 1/2” x 14GA
- **Rail Material:** Hollow Structural Tubing 1 1/2” x 1 1/2” x 16GA
- **Wire Mesh Material:** 2” x 2” Welded Wire Mesh + 11/4 x1 1/4 x 12GA Structural Angle *(wire mesh rail option only)*
- **Finish:** Posts & Mesh Panels

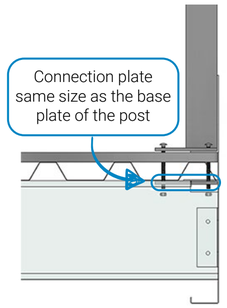
  Cogan Grey

  Rails & Kickplate

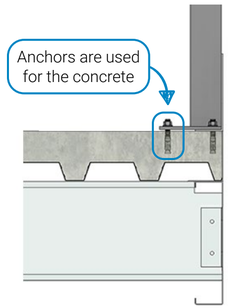
  Electro-Galvanized

4.1.4 Connection Detail *(all rail types)*

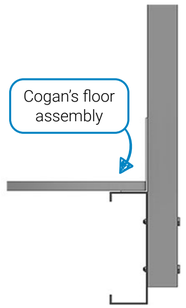
Connection with Existing Mezzanine *Corrugated Steel Deck Flooring*



Connection with Existing Mezzanine *Concrete Flooring*



Connection with Cogan Mezzanine



4.2 Gates

We offer 5 gates options: single swing, double swing, sliding, lift-out and safety pivot. With the exception of our safety pivot gate, rail style will match the handrail selection for your mezzanine.

4.2.1 Specifications

The specifications below apply to all single swing, double swing, lift-out and sliding gates.

** Gate drawings shown are for example purposes only. Rail models are available for all gate types.*

- **Models:** 2-Rail, 3-Rail, and 2” x 2” Wire Mesh
- **Frame Material:** Hollow Structural Tubing 1 1/2” x 1 1/2” x 16GA
- **Finish:**

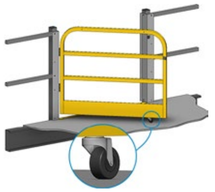
  Safety Yellow

4.2.2 Single Swing Gate

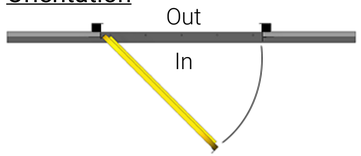
2’6” - 3’0” Wide



3’6” - 4’0” Wide



Orientation



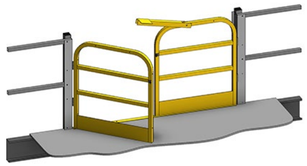
Type of Closure

Padlock Hasp

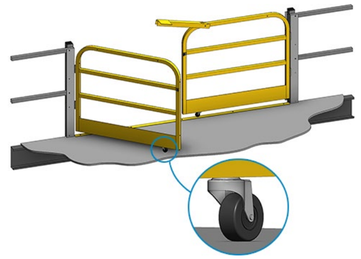
Sizes *(gate opening)*	Qty
☐ 2’-6” wide	
☐ 3’-0” wide	
☐ 3’-6” wide	
☐ 4’-0” wide	

4.2.3 Double Swing Gate

5’0” - 6’0” Wide



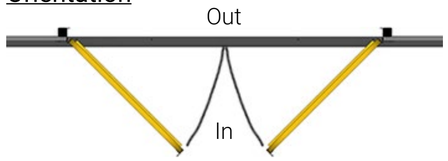
7’0” - 8’0” Wide



Type of Closure

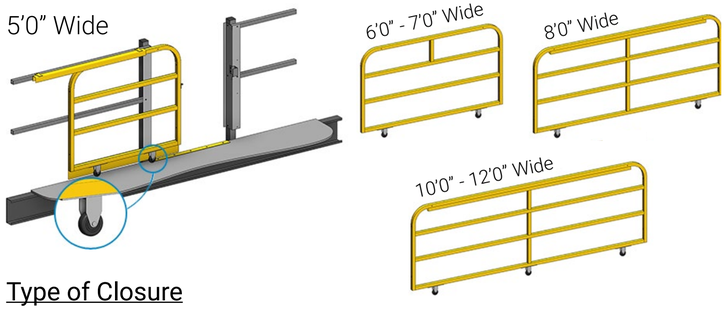
Padlock Hasp

Orientation



Sizes *(gate opening)*	Qty
☐ 5’-0” wide	
☐ 6’-0” wide	
☐ 7’-0” wide	
☐ 8’-0” wide	

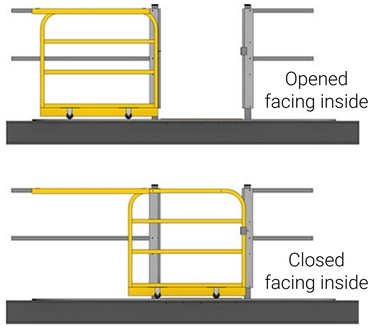
4.2.4 Sliding Gate



Type of Closure

Padlock Hasp, Receiver Bracket

Orientation



Sizes *(gate opening)*

	Qty
☐ 5’-0” wide	
☐ 6’-0” wide	
☐ 7’-0” wide	
☐ 8’-0” wide	
☐ 10’-0” wide	
☐ 12’-0” wide	

4.2.5 Safety Pivot Gate

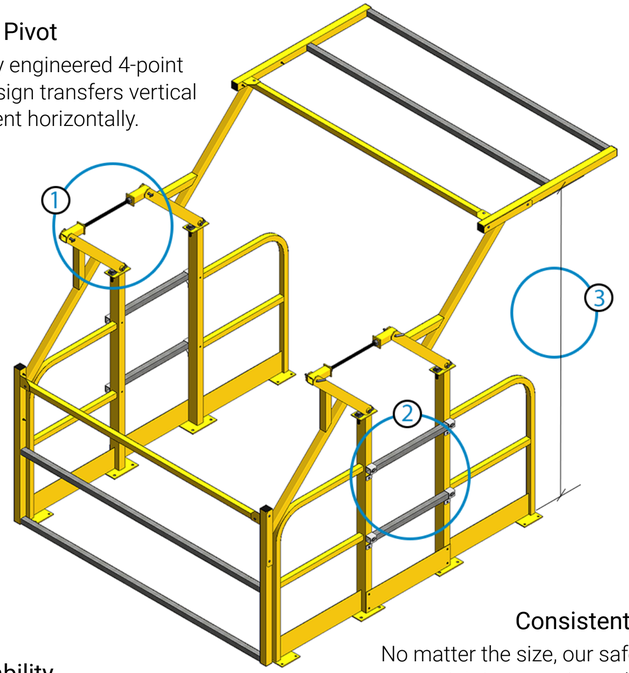
The Rolls Royce of mezzanine gates, our safety pivot gate is your safest bet for a busy loading zone. Specially designed pivot arms allow the gate to be opened on one side while closed on the other, protecting your employees from dangerous fall accidents.

3 Reasons Why our Safety Pivot Gates are the Best in the Industry

#1

4-Point Pivot

Specially engineered 4-point pivot design transfers vertical movement horizontally.



#2

Adjustability

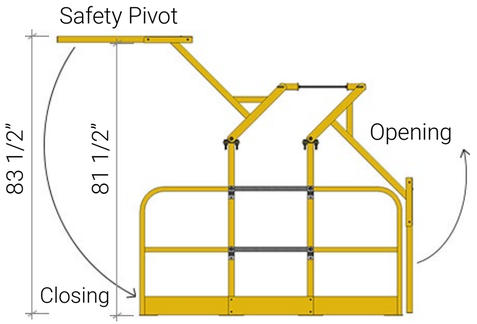
The middle section is independent from the main pivot component, allowing you the flexibility to increase or decrease the depth without buying a new gate.

#3

Consistent Height

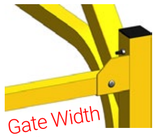
No matter the size, our safety pivot gates maintain a consistent height of 83.5” while in use, unlike single hinge models, which extend vertically as the gate size increases. Cogan safety pivot gates work easily in confined spaces. Your gate will never bump up against a low ceiling or upper deck of a multi-level mezzanine.

Orientation

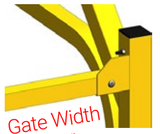


Rail Sizes

Rail Size
1 1/2 “ x 1 1/2”



Rail Size
2” x 2”



Rail Size
2” x 4”



Sizes *(gate drop area)*

Width

			Qty
☐ 5’-0”	☐ 8’-0”	☐ 11’-0”	
☐ 6’-0”	☐ 9’-0”	☐ 12’-0”	
☐ 7’-0”	☐ 10’-0”	☐ 13’-0”	

Depth

☐ 5’-0”	☐ 6’-0”	☐ 7’-0”	☐ 8’-0”

For a complete list of all sizes, visit our website:
www.cogan.com/Mezzanines/Gates/Safety-Pivot.aspx

Specifications

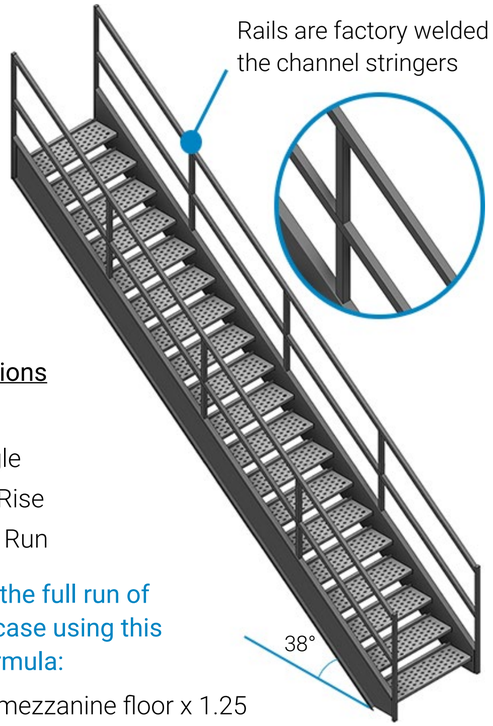
- **Frame Material:** Hollow Structural Tubing
- **Top Rail Size:** 1 1/2” x 1 1/2”, 2” x 2” or 2” x 4”
- **Finish:**
  - *Safety Yellow* Main Frame
  - *Electro-Galvanized* Handrail + Lower Gate Rails

4.3 Staircases & Ladders

Just as with handrail, building code compliance and application will dictate the type of staircase needed for your mezzanine. All four of our staircase models are designed to meet the safety standards of the International Building Code (IBC) and the National Building Code of Canada (NBCC). However, please consult with your local building inspector to determine which specific staircase model is required for your application.

4.3.1 Models

☐ Model 1 *(2-Rail)* Qty ☐



Specifications

- 2 Rails
- 38° Angle
- 8” Max Rise
- 11” Min Run

Calculate the full run of your staircase using this simple formula:

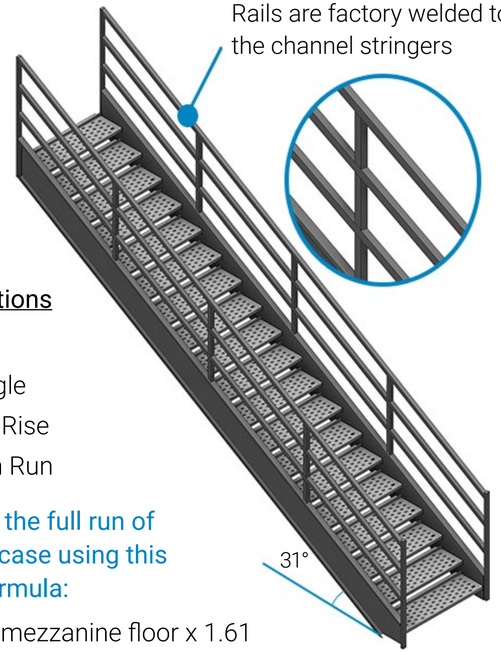
Height of mezzanine floor x 1.25

***** IMPORTANT*****

MODEL 1 staircases have **LIMITED PERMIT ACCEPTANCE**.

While they might be suitable for small equipment and service platforms in some industrial settings, you should ***always*** check with your local permit official to confirm acceptance before buying this staircase. Skipping this step could result in costly on-site modifications or complete permit rejection. Better safe than sorry, right?

☐ Model 2 *(3-Rail)* Qty ☐



Specifications

- 3 Rails
- 31° Angle
- 7” Max Rise
- 11” Min Run

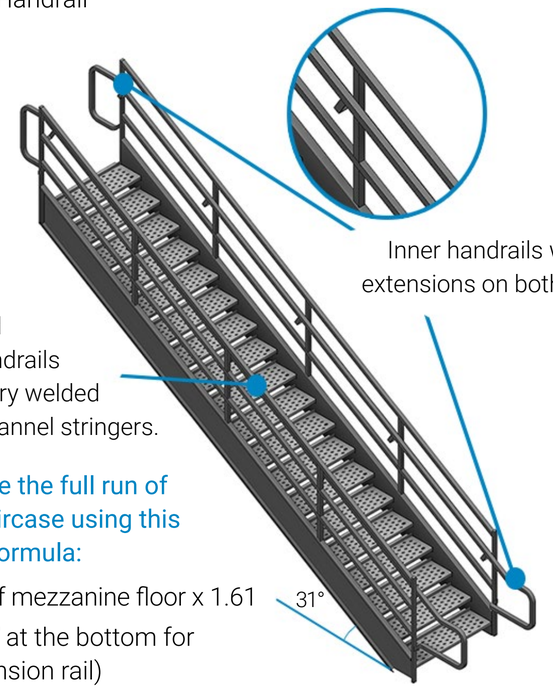
Calculate the full run of your staircase using this simple formula:

Height of mezzanine floor x 1.61

☐ Model 3 *(3-Rail + Inner Handrail)* Qty ☐

Specifications

- 3-Rail + Inner Handrail
- 31° Angle
- 7” Max Rise
- 11” Min Run



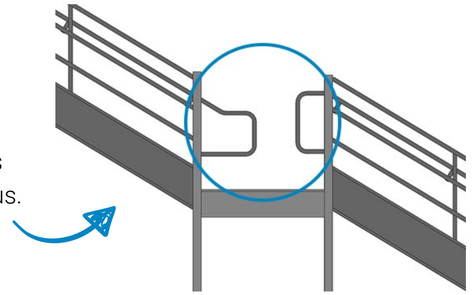
Calculate the full run of your staircase using this simple formula:

Height of mezzanine floor x 1.61

(Add 22” at the bottom for the extension rail)

Inner Handrail Extension Detail

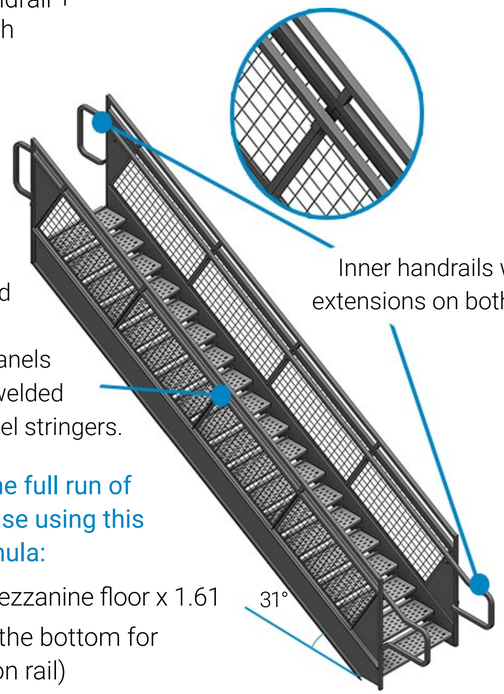
Top and bottom extension railings are not continuous.



☐ Model 4 *(2-Rail + Inner Handrail + Wire Mesh)* Qty ☐

Specifications

- 2-Rail + Inner Handrail + Wire Mesh
- 31° Angle
- 7” Max Rise
- 11” Min Run



Calculate the full run of your staircase using this simple formula:

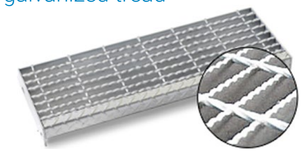
Height of mezzanine floor x 1.61

(Add 22” at the bottom for the extension rail)

4.3.2 Step Options

☐ Open Tread

Anti-slip serrated bar grating galvanized tread



☐ Closed Tread

Anti-slip dimples galvanized tread



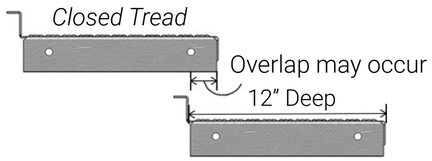
☐ Open Risers

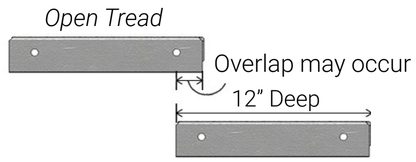


☐ Closed Risers



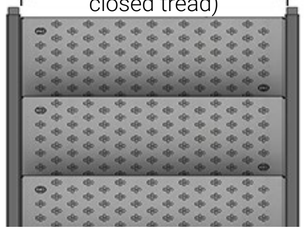
Step Depth



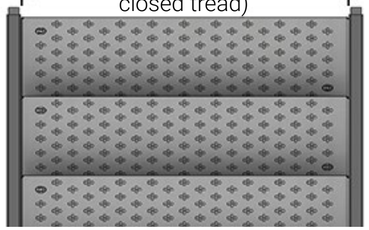


Step Width

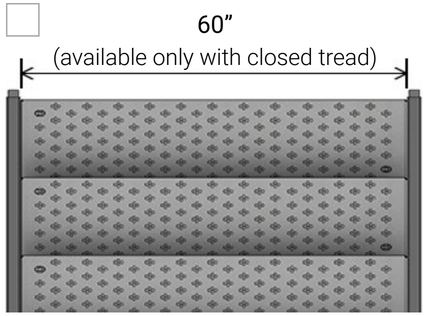
☐ 36”
(available with open or closed tread)



☐ 45”
(available with open or closed tread)



☐ 60”
(available only with closed tread)

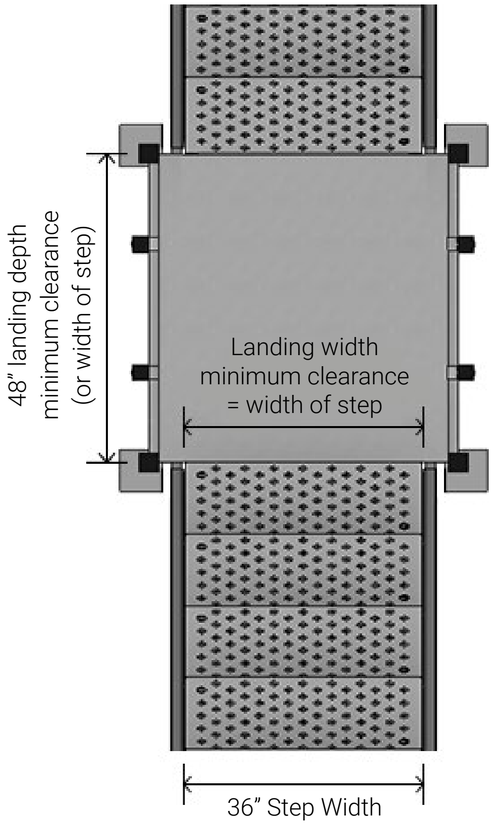


4.3.3 Mid-Landings

Staircases are built to a maximum vertical height of 12’. Staircases above 12’ high require a mid-ladning by code.

☐ Straight Staircase Qty ☐

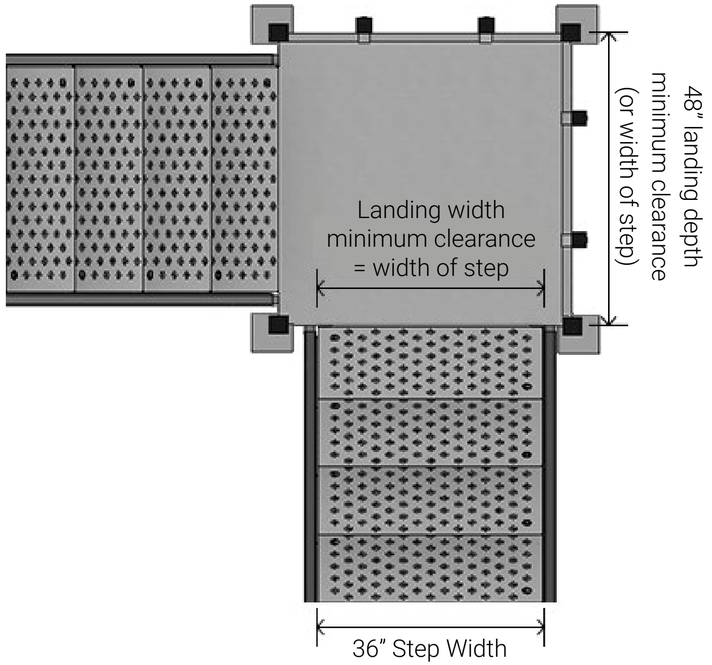
36” wide step: 4’ W x 4’ D landing
45” wide step: 5’ W x 4’ D landing
60” wide step: 6’ W x 5’ D landing



L-Shaped Staircase

Qty

36” wide step: 4’ W x 4’ D landing
45” wide step: 5’ W x 5’ D landing
60” wide step: 6’ W x 6’ D landing



Finish *(All Starcases)*

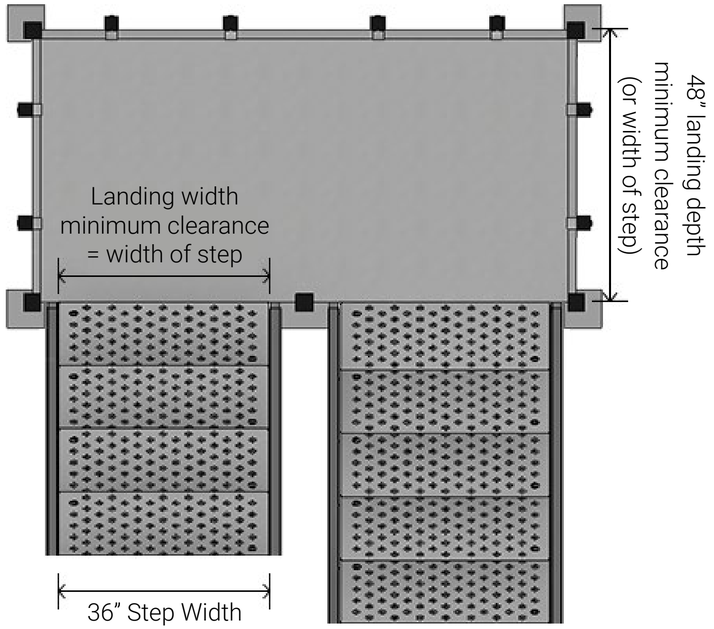
Cogan Grey
Guard, Stringers, Columns, Beams, and Handrail Posts.

Electro-Galvanized
Tread, Closed Risers, and Handrails

U-Shaped Staircase

Qty

36” wide step: 8’ W x 4’ D landing
45” wide step: 10’ W x 4’ D landing
60” wide step: 12’ W x 5’ D landing



4.3.4 Staircase Location

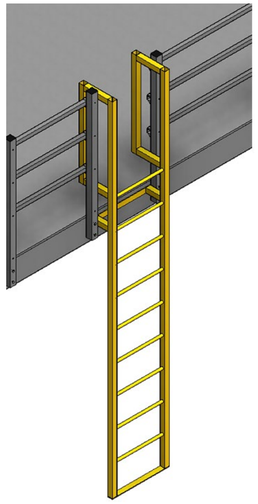
Qty

- Interior *(inside mezzanine area)*
- Exterior *(outside mezzanine area)*
- Exterior with top landing *(outside mezzanine area)*

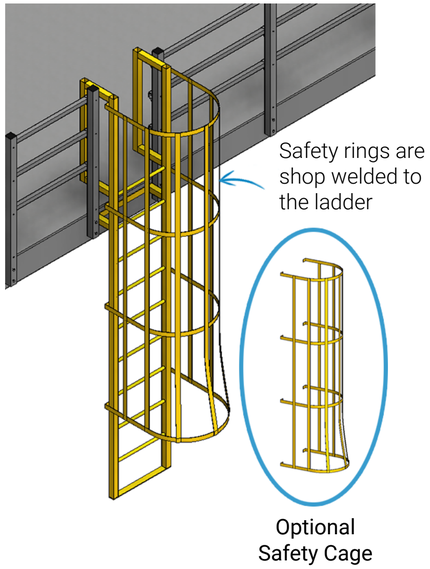
4.3.5 Ladders

Qty

Vertical Ladder



Vertical Ladder w/ Safety Cage



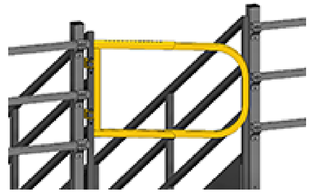
Specifications

- **Ladder Width:** 24”
- **Frame Material:** Hollow Structural Tubing 2” x 2” x 16GA
- **Finish:**

Safety Yellow

4.3.6 Self-Closing Safety Gate *(Optional)*

Qty



**Staircase installation show here. Ladder installation also available.*

Specifications

- **Adjustable Width:** 24”-36”, 33”-48”
- **Closing Method:** Spring-Loaded, Self-Closing
- **Finish:**

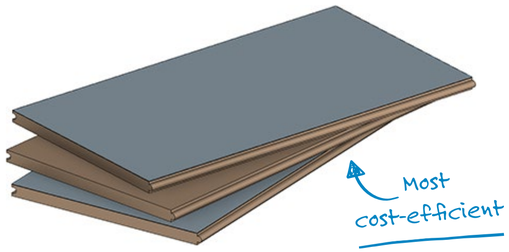
Safety Yellow

4.4 Flooring

Rugged and resilient, our mezzanine flooring systems are designed to withstand the wear and tear of industrial use. Choose from four different options to best suit your application.

4.4.1 ResinDek®

ResinDek® is a sustainable, lightweight, and durable flooring option. Capable of supporting pallet jack loads from 2,000 to 8,000 lbs., ResinDek® can withstand the demands of nearly any application. As ergonomic as it is resilient, the composite wood construction absorbs impact for enhanced comfort while walking. Lessened tibial shock reduces employee fatigue and the potential for work-related injuries. ** Corrugated steel deck underlay required.*



Specifications

- **Sheet Size**
  4’ x 8’ / 32 sqft
- **Material**
  Composite Wood Board

Flooring Type *(most popular)*

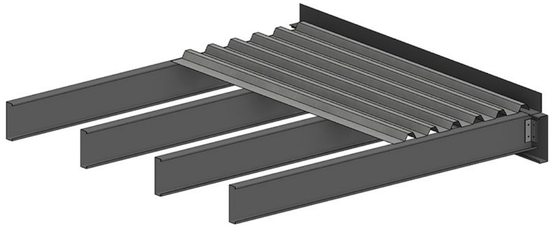
Product Name	Thickness	Pallet Jack Load Limit
☐ ResinDek® LD	3/4”	up to 2,000 lbs
☐ ResinDek® MD	3/4”	up to 3,500 lbs
☐ ResinDek® HD	3/4”	up to 4,500 lbs

Finish Options ☐ Grey Diamond Seal ☐ Unfinished *(LD only)*

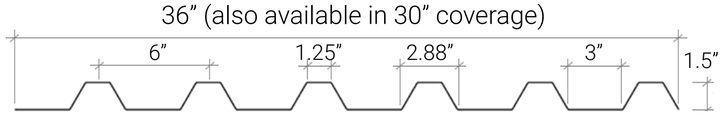
Click Here to download the ResinkDek® product brochure (PDF).
Click Here to watch the ResinDek® product video.

4.4.5 Corrugated Steel Decking

Corrugated decking is a steel underlay used to reinforce ResinDek® and concrete flooring. Complete with a galvanized top side and white underside, corrugated steel decking is available in three different gauges for your convenience.



Sideview



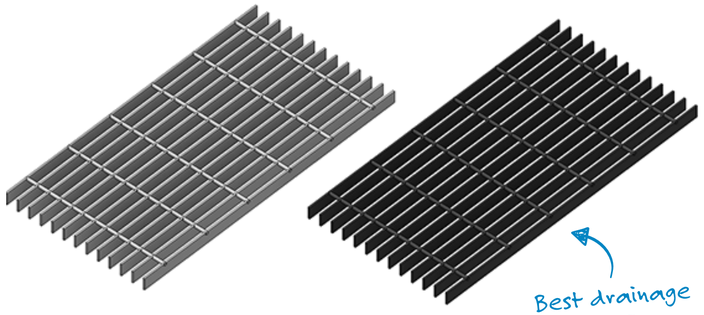
Specifications

- **Gauge:** 18GA, 20GA, 22GA
- **Decking Width:** 3’-0”
- **Decking Length:** 4’-0”, 8’-0”, 9’-0”, 10’-0”, 11’-0”, 12’-0”, 13’-0”, 14’-0”, 15’-0”, 15’-0”
- **Finish:** *White* (POWDER COATED TOUGH™) *Electro-Galvanized*

Panel sizes are determined based on flooring overlay, square footage and load capacity. To view the complete capacity tables for corrugated decking, visit our website: www.cogan.com/Mezzanines/Flooring/Corrugated-Decking.aspx

4.4.2 Bar Grating

Low-maintenance and extremely durable, bar grating is best suited for situations that require the passage of air, light and water between floor levels. The open design allows for excellent drainage and passage of debris. An optional serrated surface provides enhanced traction.



Specifications

- **Width:** 3’-0”
- **Length:** 4’-0”, 8’-0”, 12’-0”. 16’-0”, 20’-0”, 24’-0”
- **Model:** 19-W-4
- **Bar Size:** 1-3/16” C/C Bearing Bars
- **Cross Rods:** 4” C/C



Panel sizes are determined based on square footage and load capacity. To view the complete bar grating load and deflection table, visit our website: www.cogan.com/Mezzanines/Flooring/Open-Bar-Grating.aspx

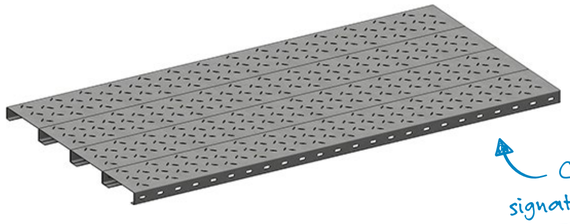
Options

Surface: ☐ Serrated ☐ Non-Serrated

Finish: ☐ *Black* (POWDER COATED TOUGH™) ☐ *Hot-Dipped Galvanized*

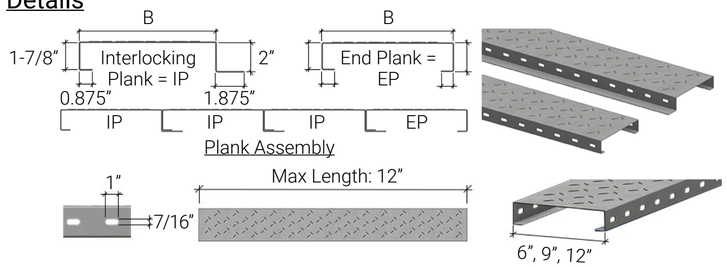
4.4.3 Diamond Grip Steel Planking

Diamond grip steel planking provides a high strength-to-weight ratio with a sleek, clean appearance. Embossed antiskid dimples prevent slips while still allowing rolling loads to circulate with ease.



Cogan's signature design!

Details



Capacity

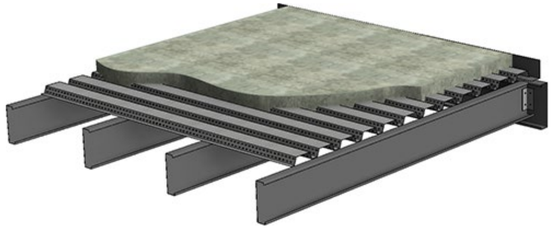
Gauge	Width of Plank	C/C Joist Spacing (Inches) 36"	42"	48"	54"	60"
12ga	6"	1400	1050	805	640	510
12ga	9"	960	705	540	425	340
12ga	12"	670	475	353	270	205
14ga	6"	910	665	505	400	320
14ga	9"	605	445	340	265	200
14ga	12"	Light-duty / foot traffic				

Specifications

- **Plank Width:** 6-0", 9-0", 12-0"
- **Gauge:** 12GA, 14GA
- **Plank Length:** 12-0"
- **Finish:** *Cogan Grey*

4.4.4 Concrete *(by others)*

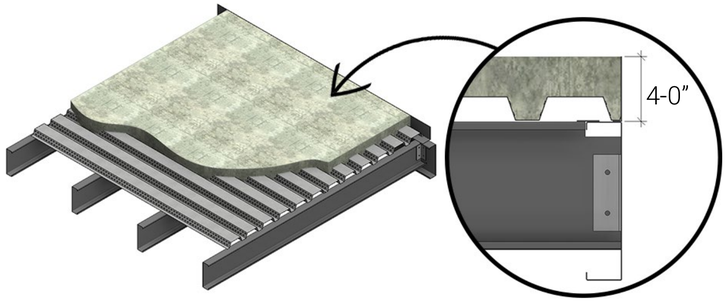
If you need concrete flooring for your mezzanine, please consult with a Cogan Engineer. We will design the structure to support a concrete floor, but the actual pouring of the concrete must be handled by a third party. ** Corrugated steel deck underlay required.*



Specifications

- **Concrete Thickness:** 4-0"
- **Placement:** Poured over galavanized corrugated steel deck

Details



Important

Please keep in mind that Cogan will not be held responsible for any material or installation deficiencies of flooring purchased from other suppliers.

Additional Resources

Click Here for the OSHA rule guide to stairways and ladders (PDF).

Click Here for information OSHA safety standards (PDF).

Click Here for information regarding the IBC regulations and safety standards (PDF).

New RFQ Worksheet

Your Path to Project Success

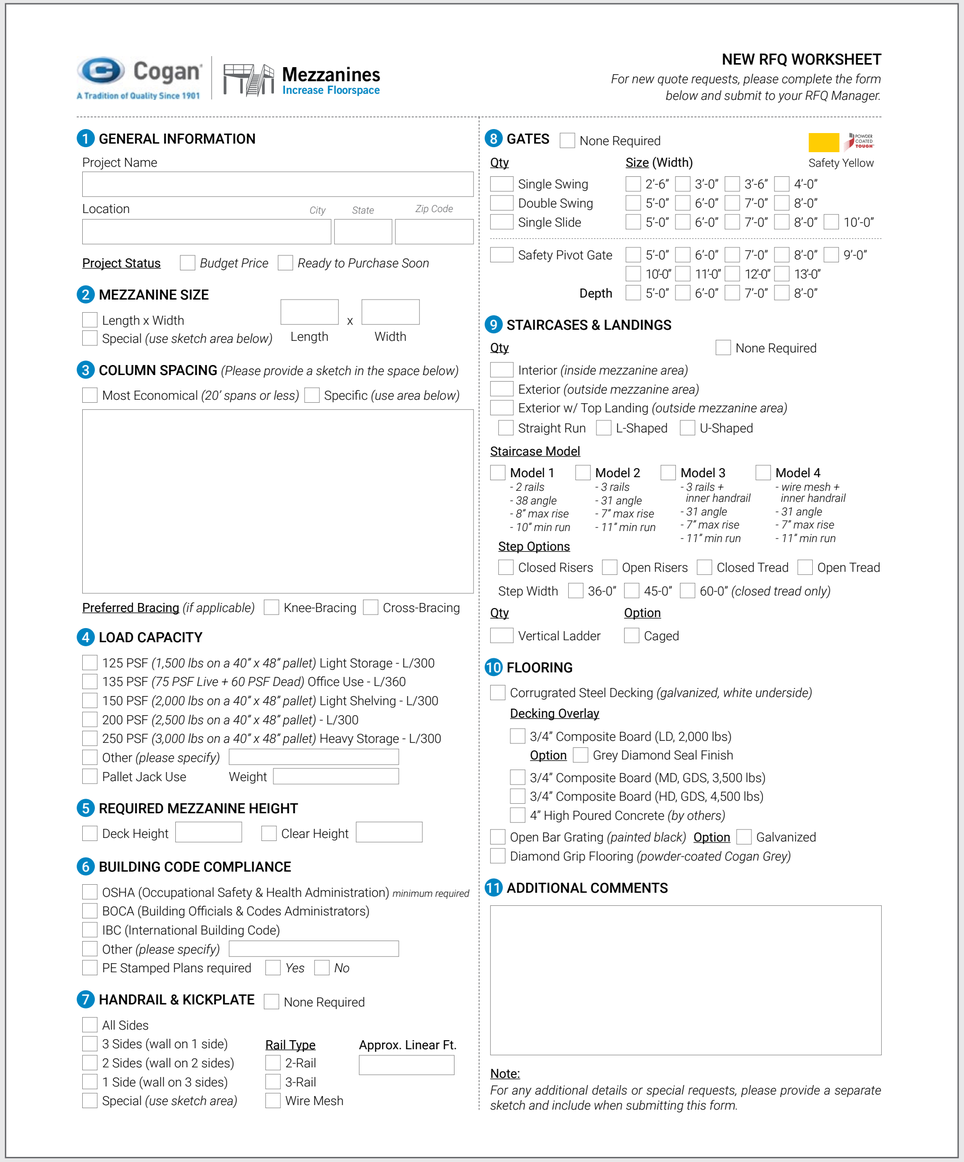
Now that you've mastered the requirements for a successful mezzanine quote, you're ready to embark on your own path to project success!

Download our handy *New RFQ Worksheet* to use a guide when submitting your quote requests. Just complete each section, attach your sketch, and send it our way.

Are you ready to start quoting?

Click Here

to download the *New RFQ Worksheet.*



Cogan — A Tradition of Quality Since 1901 | Mezzanines — Increase Floorspace

NEW RFQ WORKSHEET

For new quote requests, please complete the form below and submit to your RFQ Manager.

1 GENERAL INFORMATION

Project Name

Location — City — State — Zip Code

Project Status ☐ *Budget Price* ☐ *Ready to Purchase Soon*

2 MEZZANINE SIZE

☐ Length x Width ☐ Special *(use sketch area below)* — Length x Width

3 COLUMN SPACING *(Please provide a sketch in the space below)*

☐ Most Economical *(20' spans or less)* ☐ Specific *(use area below)*

Preferred Bracing *(if applicable)* ☐ Knee-Bracing ☐ Cross-Bracing

4 LOAD CAPACITY

☐ 125 PSF *(1,500 lbs on a 40" x 48" pallet)* Light Storage - L/300
☐ 135 PSF *(75 PSF Live + 60 PSF Dead)* Office Use - L/360
☐ 150 PSF *(2,000 lbs on a 40" x 48" pallet)* Light Shelving - L/300
☐ 200 PSF *(2,500 lbs on a 40" x 48" pallet)* - L/300
☐ 250 PSF *(3,000 lbs on a 40" x 48" pallet)* Heavy Storage - L/300
☐ Other *(please specify)*
☐ Pallet Jack Use — Weight

5 REQUIRED MEZZANINE HEIGHT

☐ Deck Height ☐ Clear Height

6 BUILDING CODE COMPLIANCE

☐ OSHA (Occupational Safety & Health Administration) *minimum required*
☐ BOCA (Building Officials & Codes Administrators)
☐ IBC (International Building Code)
☐ Other *(please specify)*
☐ PE Stamped Plans required ☐ *Yes* ☐ *No*

7 HANDRAIL & KICKPLATE ☐ None Required

☐ All Sides
☐ 3 Sides (wall on 1 side)
☐ 2 Sides (wall on 2 sides)
☐ 1 Side (wall on 3 sides)
☐ Special *(use sketch area)*

Rail Type: ☐ 2-Rail ☐ 3-Rail ☐ Wire Mesh

Approx. Linear Ft.

8 GATES ☐ None Required — Safety Yellow

Qty	Size (Width)					
☐ Single Swing	☐ 2'-6"	☐ 3'-0"	☐ 3'-6"	☐ 4'-0"		
☐ Double Swing	☐ 5'-0"	☐ 6'-0"	☐ 7'-0"	☐ 8'-0"		
☐ Single Slide	☐ 5'-0"	☐ 6'-0"	☐ 7'-0"	☐ 8'-0"	☐ 10'-0"	
☐ Safety Pivot Gate	☐ 5'-0"	☐ 6'-0"	☐ 7'-0"	☐ 8'-0"	☐ 9'-0"	
	☐ 10'-0"	☐ 11'-0"	☐ 12'-0"	☐ 13'-0"		
Depth	☐ 5'-0"	☐ 6'-0"	☐ 7'-0"	☐ 8'-0"		

9 STAIRCASES & LANDINGS

Qty ☐ None Required

☐ Interior *(inside mezzanine area)*
☐ Exterior *(outside mezzanine area)*
☐ Exterior w/ Top Landing *(outside mezzanine area)*
☐ Straight Run ☐ L-Shaped ☐ U-Shaped

Staircase Model

☐ Model 1	☐ Model 2	☐ Model 3	☐ Model 4
- 2 rails - 38 angle - 8" max rise - 10" min run	- 3 rails - 31 angle - 7" max rise - 11" min run	- 3 rails + inner handrail - 31 angle - 7" max rise - 11" min run	- wire mesh + inner handrail - 31 angle - 7" max rise - 11" min run

Step Options

☐ Closed Risers ☐ Open Risers ☐ Closed Tread ☐ Open Tread

Step Width ☐ 36-0" ☐ 45-0" ☐ 60-0" *(closed tread only)*

Qty	Option
☐ Vertical Ladder	☐ Caged

10 FLOORING

☐ Corrugated Steel Decking *(galvanized, white underside)*

Decking Overlay

☐ 3/4" Composite Board (LD, 2,000 lbs)
Option ☐ Grey Diamond Seal Finish
☐ 3/4" Composite Board (MD, GDS, 3,500 lbs)
☐ 3/4" Composite Board (HD, GDS, 4,500 lbs)
☐ 4" High Poured Concrete *(by others)*

☐ Open Bar Grating *(painted black)* Option ☐ Galvanized
☐ Diamond Grip Flooring *(powder-coated Cogan Grey)*

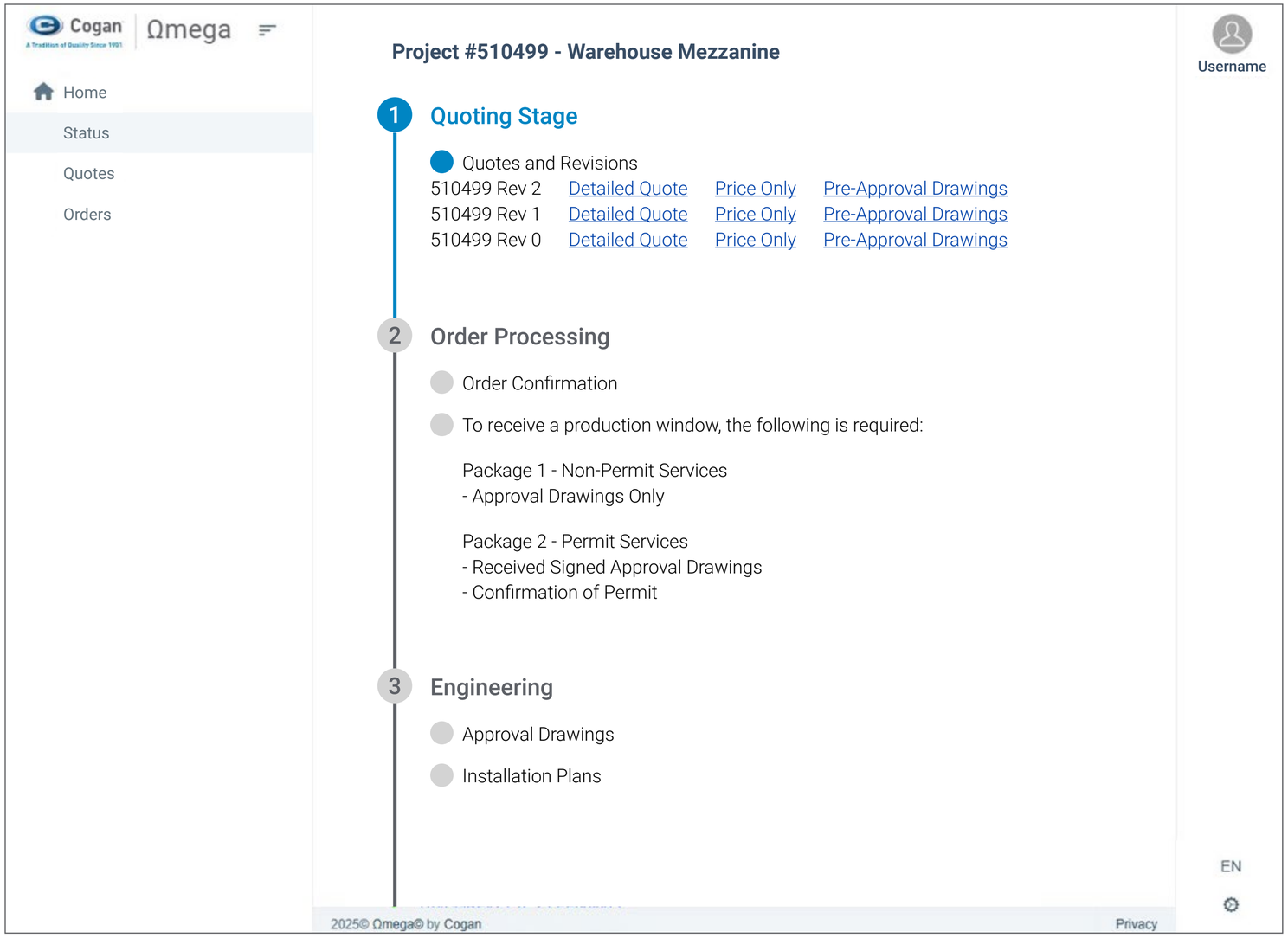
11 ADDITIONAL COMMENTS

Note:
For any additional details or special requests, please provide a separate sketch and include when submitting this form.

Chapter 3

Understanding Your Quote

- How to Read Your Quote
- Preliminary Approval Drawings
- Additional Support



** The above project highway is for example purposes only.*

How to Read Your Quote

The Nuts & Bolts

We always aim to simplify your work process with us. Our quotes are straightforward and easy to read. No hidden fees or red tape. These are just a few key pointers to make sure you don't miss a thing.

1.1 Quote Summary

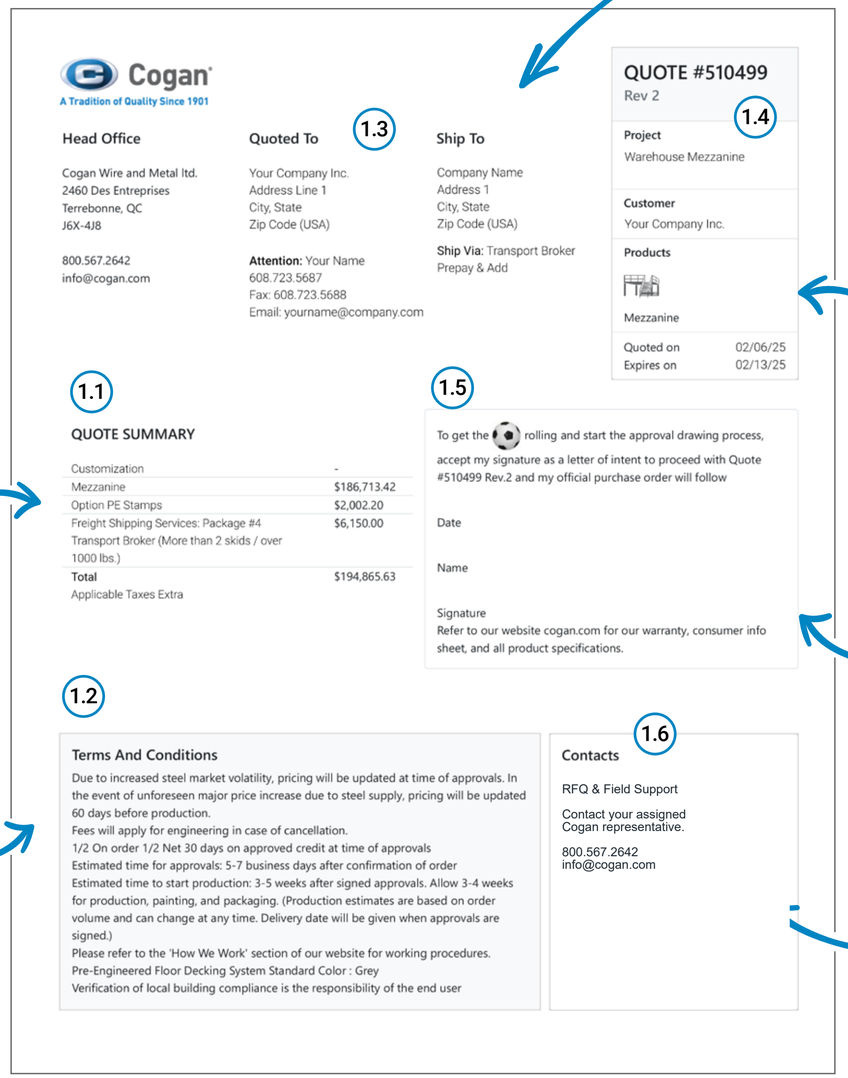
Your budget at a glance. See the price breakdown for each section of your quote as well as the total dollar value.

1.2 Always Read the Fine Print

Please review the Terms & Conditions section carefully. This is where you'll find your payment schedule as well as the most recent estimated lead times for approval drawings and production.

#1

Quote Cover Page



1.3 Your Contact Information

The center column is where you'll find your contact information and ship-to details. Note the primary contact identified under "Attention". This person will receive all email notifications and have access to the project on their Dealer Portal. If this is not the right contact or if someone else needs to be CC'd on status updates, please notify your RFQ Manager.

1.4 Easy to Keep Track

Identify your project in a flash. The top right corner is where you'll find the quote number and revision, project name, product, and *very* important - the expiration date. Pricing is valid for 8 days (including weekends) and will need to be refreshed once this window has timed out.

1.5 Sign Your Quote

Ready to move forward but need some time to prepare your purchase order? We understand. Signing this section moves your order all the way to the approval drawing stage. This can save weeks of lead time while you wait for your PO.

1.6 Who You Gonna Call?

Is there something strange in your paperwork? Who you gonna call? Our resident *quotebusters*! Find the contact info for your RFQ Manager and Field Manager here.

#2

Body of the Quote

2.1 Have it Your Way

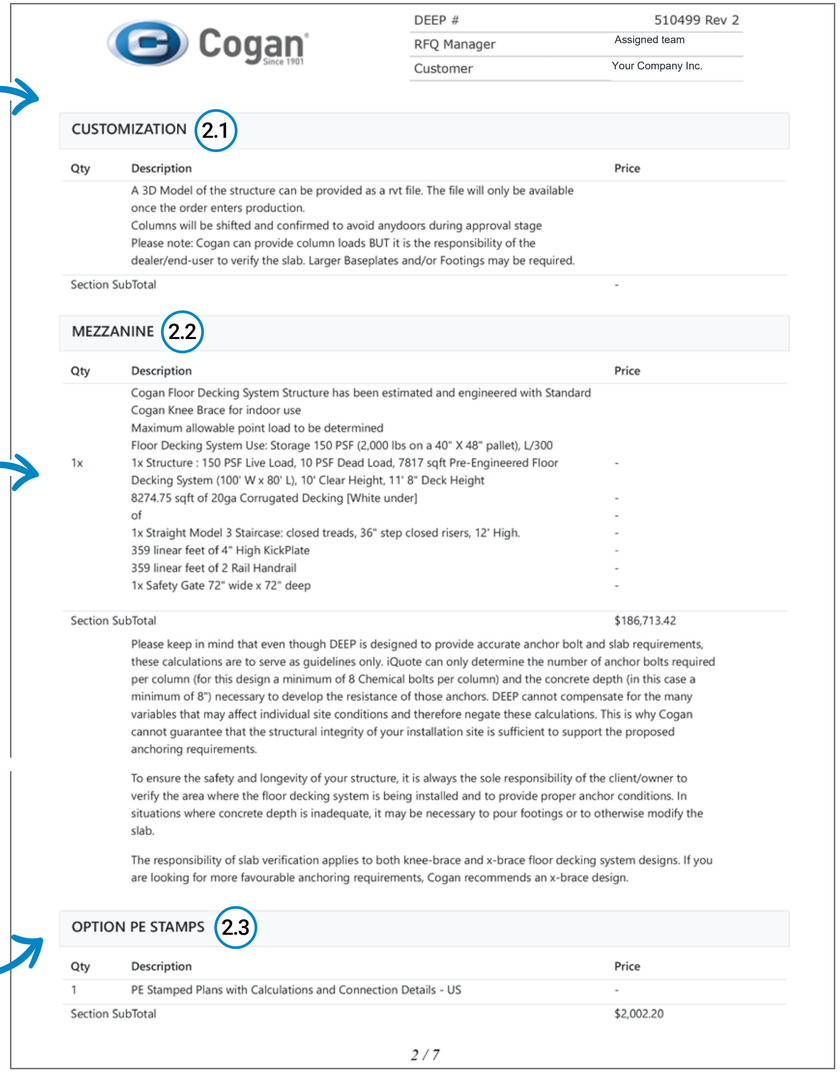
Any customization that can only be handled at the Engineering stage will have a written summary at the top of your quote. Please pay special attention to this section as it can sometimes override parts of the structure description below.

2.2 The Meat & Potatoes

This is the main section of your quote. It summarizes of the mezzanine structure itself, including load capacity, bracing type, overall dimensions, handrail, staircases, gates, and flooring.

2.3 Keeping Your Options Open

This section is for any special Engineering Services you've requested from us, such as PE Stamped Plans for a permit application. Engineering services are always priced separately from the structure as an option.



Cogan Since 1901

DEEP #	510499 Rev 2
RFQ Manager	Assigned team
Customer	Your Company Inc.

CUSTOMIZATION 2.1

Qty	Description	Price
	A 3D Model of the structure can be provided as a rvt file. The file will only be available once the order enters production. Columns will be shifted and confirmed to avoid anydoors during approval stage Please note: Cogan can provide column loads BUT it is the responsibility of the dealer/end-user to verify the slab. Larger Baseplates and/or Footings may be required.	
Section SubTotal		-

MEZZANINE 2.2

Qty	Description	Price
	Cogan Floor Decking System Structure has been estimated and engineered with Standard Cogan Knee Brace for indoor use Maximum allowable point load to be determined Floor Decking System Use: Storage 150 PSF (2,000 lbs on a 40" X 48" pallet), L/300	
1x	1x Structure : 150 PSF Live Load, 10 PSF Dead Load, 7817 sqft Pre-Engineered Floor Decking System (100' W x 80' L), 10' Clear Height, 11' 8" Deck Height	-
	8274.75 sqft of 20ga Corrugated Decking [White under]	-
	of	-
	1x Straight Model 3 Staircase: closed treads, 36" step closed risers, 12' High.	-
	359 linear feet of 4" High KickPlate	-
	359 linear feet of 2 Rail Handrail	-
	1x Safety Gate 72" wide x 72" deep	-
Section SubTotal		$186,713.42

Please keep in mind that even though DEEP is designed to provide accurate anchor bolt and slab requirements, these calculations are to serve as guidelines only. iQuote can only determine the number of anchor bolts required per column (for this design a minimum of 8 Chemical bolts per column) and the concrete depth (in this case a minimum of 8") necessary to develop the resistance of those anchors. DEEP cannot compensate for the many variables that may affect individual site conditions and therefore negate these calculations. This is why Cogan cannot guarantee that the structural integrity of your installation site is sufficient to support the proposed anchoring requirements.

To ensure the safety and longevity of your structure, it is always the sole responsibility of the client/owner to verify the area where the floor decking system is being installed and to provide proper anchor conditions. In situations where concrete depth is inadequate, it may be necessary to pour footings or to otherwise modify the slab.

The responsibility of slab verification applies to both knee-brace and x-brace floor decking system designs. If you are looking for more favourable anchoring requirements, Cogan recommends an x-brace design.

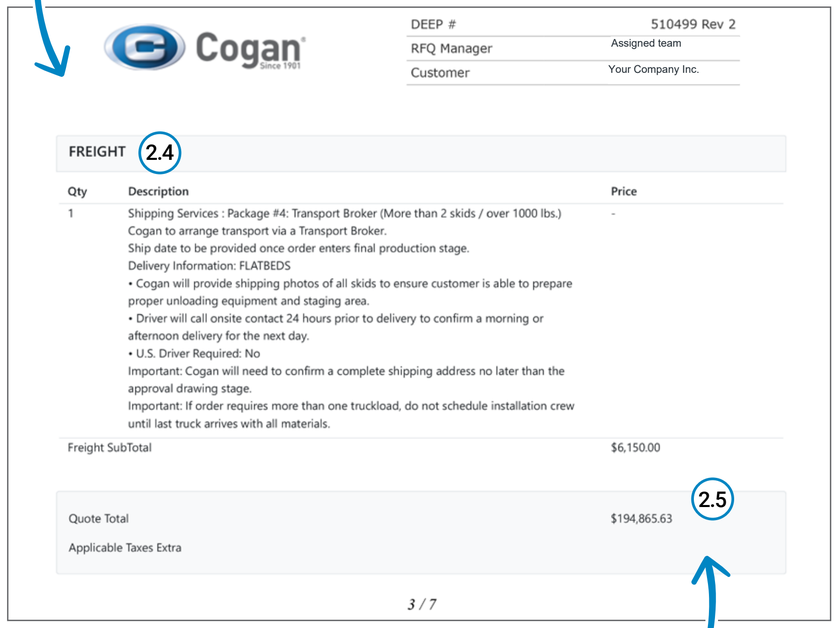
OPTION PE STAMPS 2.3

Qty	Description	Price
1	PE Stamped Plans with Calculations and Connection Details - US	-
Section SubTotal		$2,002.20

2 / 7

2.4 From our Door to Yours *(or your Customer's)*

The freight section summarizes how your mezzanine will ship, whether youère using Cogan Shipping Services or arranging your own transport. Here you'll find the shipping method, such as Transport Broker, LTL Closed or Pick Up, and any special delivery notes. Freight is also always priced separately as an option.



Cogan Since 1901

DEEP #	510499 Rev 2
RFQ Manager	Assigned team
Customer	Your Company Inc.

FREIGHT 2.4

Qty	Description	Price
1	Shipping Services : Package #4: Transport Broker (More than 2 skids / over 1000 lbs.) Cogan to arrange transport via a Transport Broker. Ship date to be provided once order enters final production stage. Delivery Information: FLATBEDS • Cogan will provide shipping photos of all skids to ensure customer is able to prepare proper unloading equipment and staging area. • Driver will call onsite contact 24 hours prior to delivery to confirm a morning or afternoon delivery for the next day. • U.S. Driver Required: No Important: Cogan will need to confirm a complete shipping address no later than the approval drawing stage. Important: If order requires more than one truckload, do not schedule installation crew until last truck arrives with all materials.	-
Freight SubTotal		$6,150.00

Quote Total $194,865.63 2.5

Applicable Taxes Extra

3 / 7

2.5 The Bottom Line

The grand total for all sections of your quote, including options and freight, will be listed as the last line item. You can also find this on the quote cover page.

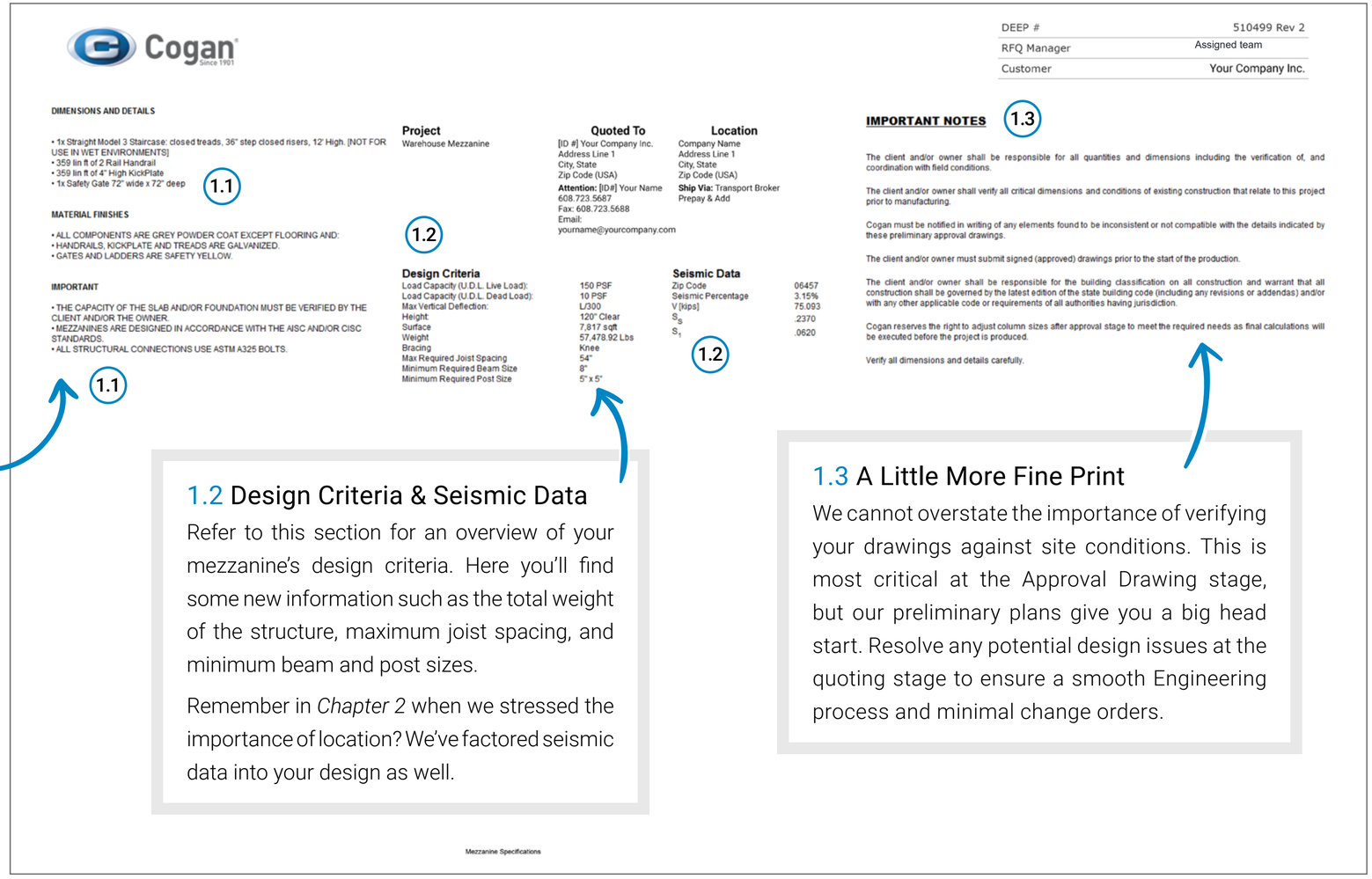
Preliminary Approval Drawings

Eliminate the Guesswork

Our state-of-the-art estimation software allows us to generate a set of preliminary approval drawings with *every* mezzanine quote. These drawings include plan and elevation views, staircase, handrail and gate placement, and a complete column schedule. You'll get a first look at your mezzanine before it even reaches the Engineering stage.

#1

Design Details



Cogan Since 1901

DEEP # 510499 Rev 2
RFQ Manager Assigned team
Customer Your Company Inc.

DIMENSIONS AND DETAILS

• 1x Straight Model 3 Staircase: closed treads, 36" step closed risers, 12' High. [NOT FOR USE IN WET ENVIRONMENTS]
• 359 lin ft of 2 Rail Handrail
• 359 lin ft of 4" High KickPlate
• 1x Safety Gate 72" wide x 72" deep

1.1

MATERIAL FINISHES

• ALL COMPONENTS ARE GREY POWDER COAT EXCEPT FLOORING AND:
• HANDRAILS, KICKPLATE AND TREADS ARE GALVANIZED.
• GATES AND LADDERS ARE SAFETY YELLOW.

IMPORTANT

• THE CAPACITY OF THE SLAB AND/OR FOUNDATION MUST BE VERIFIED BY THE CLIENT AND/OR THE OWNER.
• MEZZANINES ARE DESIGNED IN ACCORDANCE WITH THE AISC AND/OR CISC STANDARDS.
• ALL STRUCTURAL CONNECTIONS USE ASTM A325 BOLTS.

1.1

Project
Warehouse Mezzanine

Quoted To
[ID #] Your Company Inc.
Address Line 1
City, State
Zip Code (USA)
Attention: [ID #] Your Name
608.723.5687
Fax: 608.723.5688
Email:
yourname@yourcompany.com

Location
Company Name
Address Line 1
City, State
Zip Code (USA)
Ship Via: Transport Broker
Prepay & Add

1.2

Design Criteria

Load Capacity (U.D.L. Live Load):	150 PSF
Load Capacity (U.D.L. Dead Load):	10 PSF
Max Vertical Deflection:	L/300
Height	120" Clear
Surface	7,817 sqft
Weight	57,478.92 Lbs
Bracing	Knee
Max Required Joist Spacing	54"
Minimum Required Beam Size	8"
Minimum Required Post Size	5" x 5"

Seismic Data

Zip Code	06457
Seismic Percentage	3.15%
V [kips]	75.093
S_s	.2370
S_1	.0620

1.2

IMPORTANT NOTES 1.3

The client and/or owner shall be responsible for all quantities and dimensions including the verification of, and coordination with field conditions.

The client and/or owner shall verify all critical dimensions and conditions of existing construction that relate to this project prior to manufacturing.

Cogan must be notified in writing of any elements found to be inconsistent or not compatible with the details indicated by these preliminary approval drawings.

The client and/or owner must submit signed (approved) drawings prior to the start of the production.

The client and/or owner shall be responsible for the building classification on all construction and warrant that all construction shall be governed by the latest edition of the state building code (including any revisions or addendas) and/or with any other applicable code or requirements of all authorities having jurisdiction.

Cogan reserves the right to adjust column sizes after approval stage to meet the required needs as final calculations will be executed before the project is produced.

Verify all dimensions and details carefully.

Mezzanine Specifications

1.1 Dimensions & Details

In the top left corner, you'll find a quick summary of your mezzanine details, including staircases, handrails, gates, and material finishes. Please keep in mind that it is your responsibility (and/or the end user's) to verify the slab capacity at the installation site.

1.2 Design Criteria & Seismic Data

Refer to this section for an overview of your mezzanine's design criteria. Here you'll find some new information such as the total weight of the structure, maximum joist spacing, and minimum beam and post sizes.

Remember in *Chapter 2* when we stressed the importance of location? We've factored seismic data into your design as well.

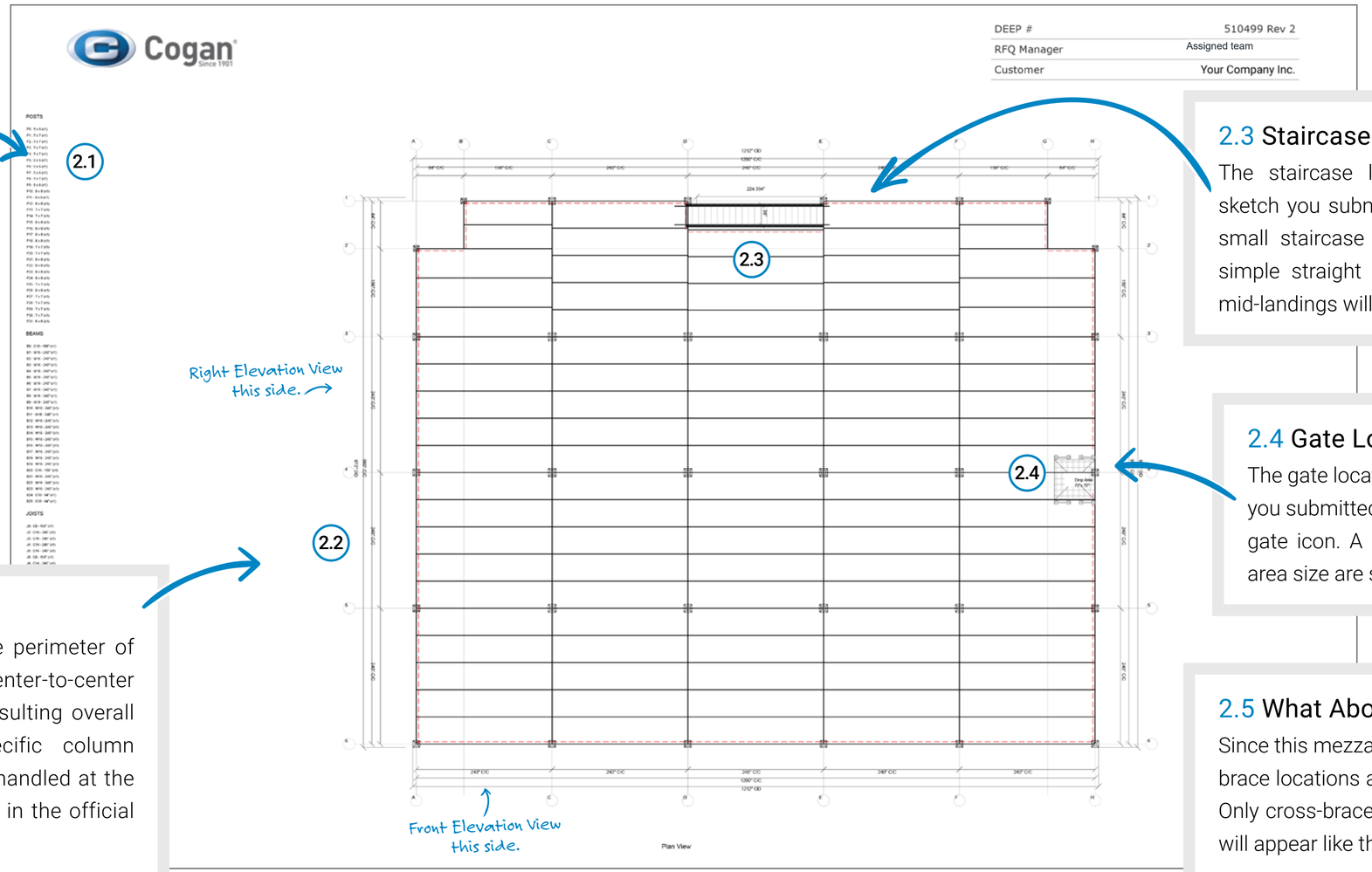
1.3 A Little More Fine Print

We cannot overstate the importance of verifying your drawings against site conditions. This is most critical at the Approval Drawing stage, but our preliminary plans give you a big head start. Resolve any potential design issues at the quoting stage to ensure a smooth Engineering process and minimal change orders.

#2

Plan View

a.k.a. "The bird's eye view"



2.1 The Legend

The column on the left serves as a legend for the posts, beams, joists, and handrails shown in the Plan View to the right. Know the exact number, size, and placement of the components that will be used to build your structure.

2.2 Column Spacing

The measurements along the perimeter of the Plan View indicate the center-to-center (C/C) column spacing and resulting overall dimensions (OD). Any specific column placement or cutouts will be handled at the Engineering stage and shown in the official Approval Drawings.

2.3 Staircase Location(s)

The staircase location(s) requested on the sketch you submitted will be represented by a small staircase icon. This example shows a simple straight run. L-shapes, U-shapes, and mid-landings will be depicted accordingly.

2.4 Gate Location(s)

The gate location(s) requested on the sketch you submitted will be represented by a small gate icon. A safety pivot gate and its drop area size are shown in this example.

2.5 What About Bracing?

Since this mezzanine uses a knee-brace design, brace locations are not shown in the Plan View. Only cross-brace locations are shown here and will appear like this:



#3

Front Elevation View

Cogan Since 1901

DEEP #	510499 Rev 2
RFQ Manager	Assigned team
Customer	Your Company Inc.

3.1 Front View in 2D

This the 2D Front Elevation View of your mezzanine or the "south side" according the Plan View. The darker elements depict is the front *(south side)* and the lighter elements depict what is in the back *(north side)*.

3.2 Height

Find all height measurements on the left-hand side including, deck height, top of structure, clear height, clear height under bracing, and handrail height.

3.3 Column Spacing

These are the column spacing and overall dimensions shown on the Plan View, but from a different perspective.

3.4 Staircase Location(s)

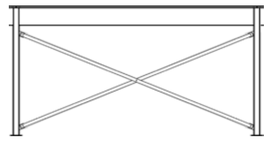
Just as in the Plan View, any staircase locations that affect the Front Elevation View will be shown here. This example shows a simple straight run. L-shapes, U-shapes, and mid-landings will be depicted accordingly.

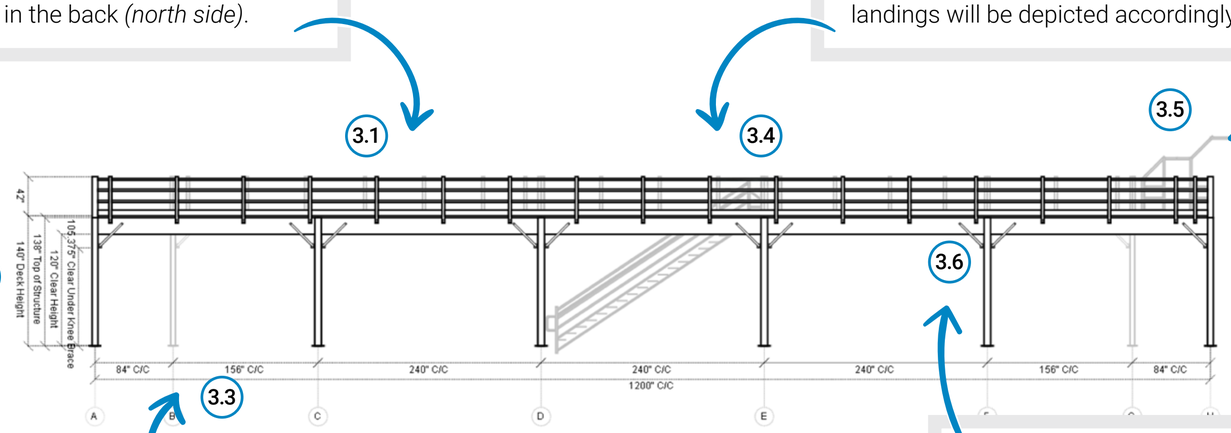
3.5 Gate Location(s)

Just as in the Plan View, any gate locations that affect the Front Elevation View will be shown here. A safety pivot gate is used in this example.

3.6 Bracing

Bracing locations that affect the Front Elevation View will be shown here. Knee-braces are used in this example. **Cross-bracing will appear like this:**





Front Elevation View

#4

Right Elevation View

4.1 Side View in 2D

This the 2D Right Elevation View of your mezzanine or the “west side” according the Plan View. Picture yourself facing the north side of your mezzanine, this would be the perspective to your right. The darker elements depict what is in front *(west side)* and the lighter elements depict what is in the back *(east side)*.

4.2 Height

Find all height measurements on the left hand side including, deck height, top of structure, clear height, clear height under bracing, and handrail height.

4.3 Staircase Location(s)

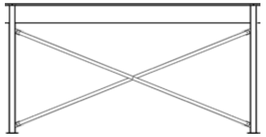
Just as in the Plan View, any staircase locations that affect the Right Elevation View will be shown here. This example shows a simple straight run. L-shapes, U-shapes, and mid-landings will be depicted accordingly.

4.4 Gate Location(s)

Just as in the Plan View, any gate locations that affect the Right Elevation View will be shown here. A safety pivot gate is used in this example.

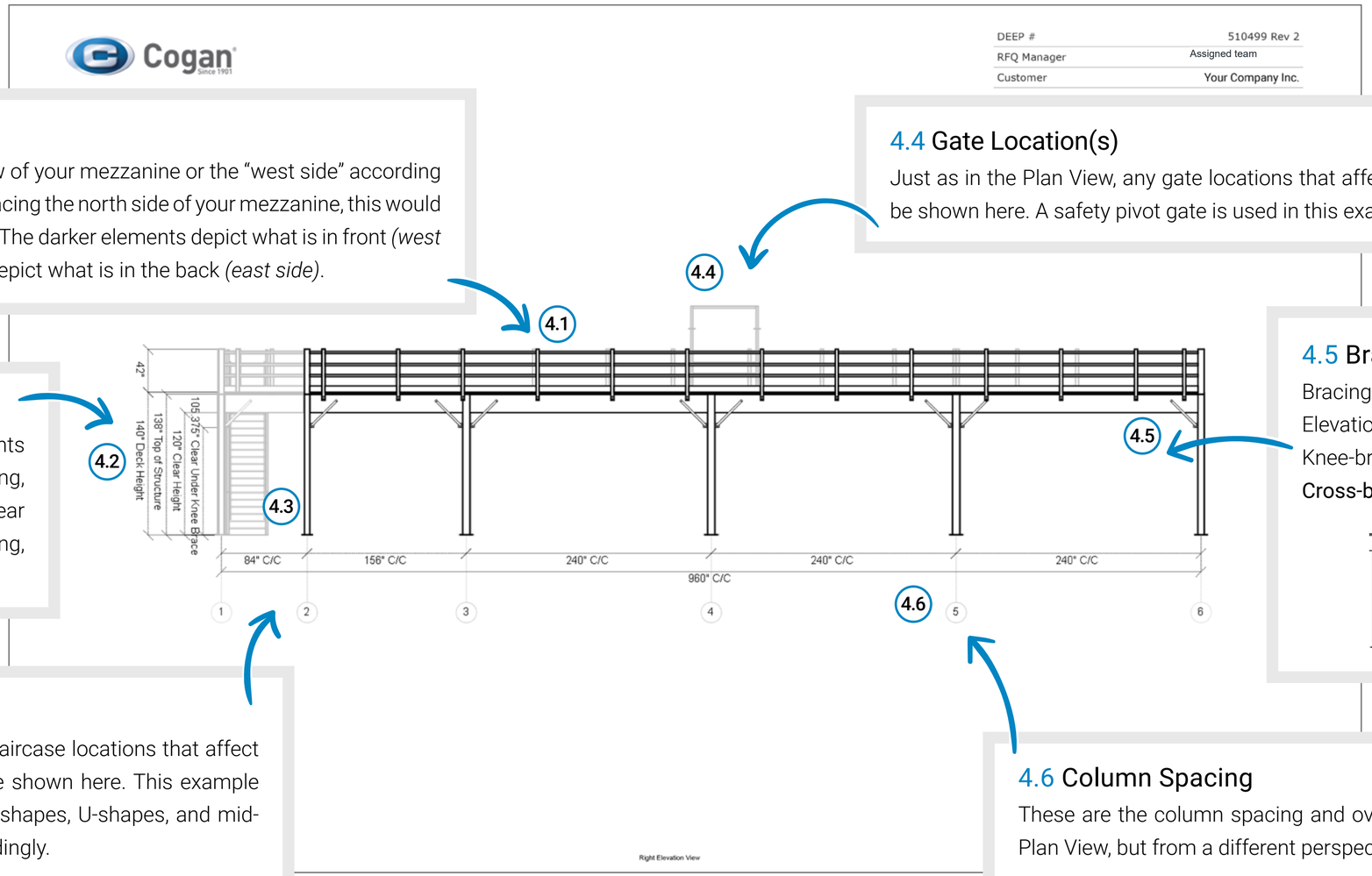
4.5 Bracing

Bracing locations that affect the Front Elevation View will be shown here. Knee-braces are used in this example. **Cross-bracing will appear like this:**



4.6 Column Spacing

These are the column spacing and overall dimensions shown on the Plan View, but from a different perspective.



Additional Support

A Little Help to Close the Deal

We could all use a little help sometimes. From conference calls to permit applications and installation, our additional support services are here for you. They might just be the key to turning your quote into an order!



Conference Calls

Boost Your Closing Ratio with a Conference Call

If you have a complex or high-value project, close communication between Cogan, you and your customer is key to getting your quote across the finish line. With our expertise by your side, you'll save precious time, sidestep costly errors, and most importantly, seal the deal.

Why are conference calls a game changer?

- Spot-on Quotes
  Eliminate guess work and get an accurate quote, the first time.
- Revision Follow-ups
  In the early stages of any project. changes can happen. Feel supported throughout the estimation process.
- Customer Satisfaction
  By working together from the beginning, we'll make sure you have all the tools you need to put your best foot forward with your customer.

Contact your RFQ Manager to schedule a conference call.



Permit Services

Applying for a Mezzanine Permit? We can Help!

Cogan provides complete permit support for every stage of the application process. Whether you need basic PE Stamps or a complete Slab Analysis, we have the resources and expertise to keep your project running smoothly.

Permit packages for your exacts needs:

- PE Stamped Plans with Calculations and Connection Details
  Stamped structural plans with elevation drawings, design criteria, classification details, and engineering calculations. Required for all permit applications.
- Slab Analysis with Anchor Detail
  Ensures foundation integrity and determines anchoring needs. May be required for stringent permits, like in high seismic areas.
- Footing (Foundation) Design
  Complete foundation design. Required if slab analysis fails and a structural redesign does not sufficiently reduce design loads.

Find a complete overview of our Permit Services on our website:
www.cogan.com/Mezzanines/Engineering/Permit Services



Recommended Installers

Top-Notch Installation for Your Project

Set yourself up for success with a Cogan Recommended Installer. Located across North America, we've hand-picked each team for their expertise, professionalism, and superior workmanship. We wouldn't recommend it any other way!

Why choose a Cogan recommended installer?

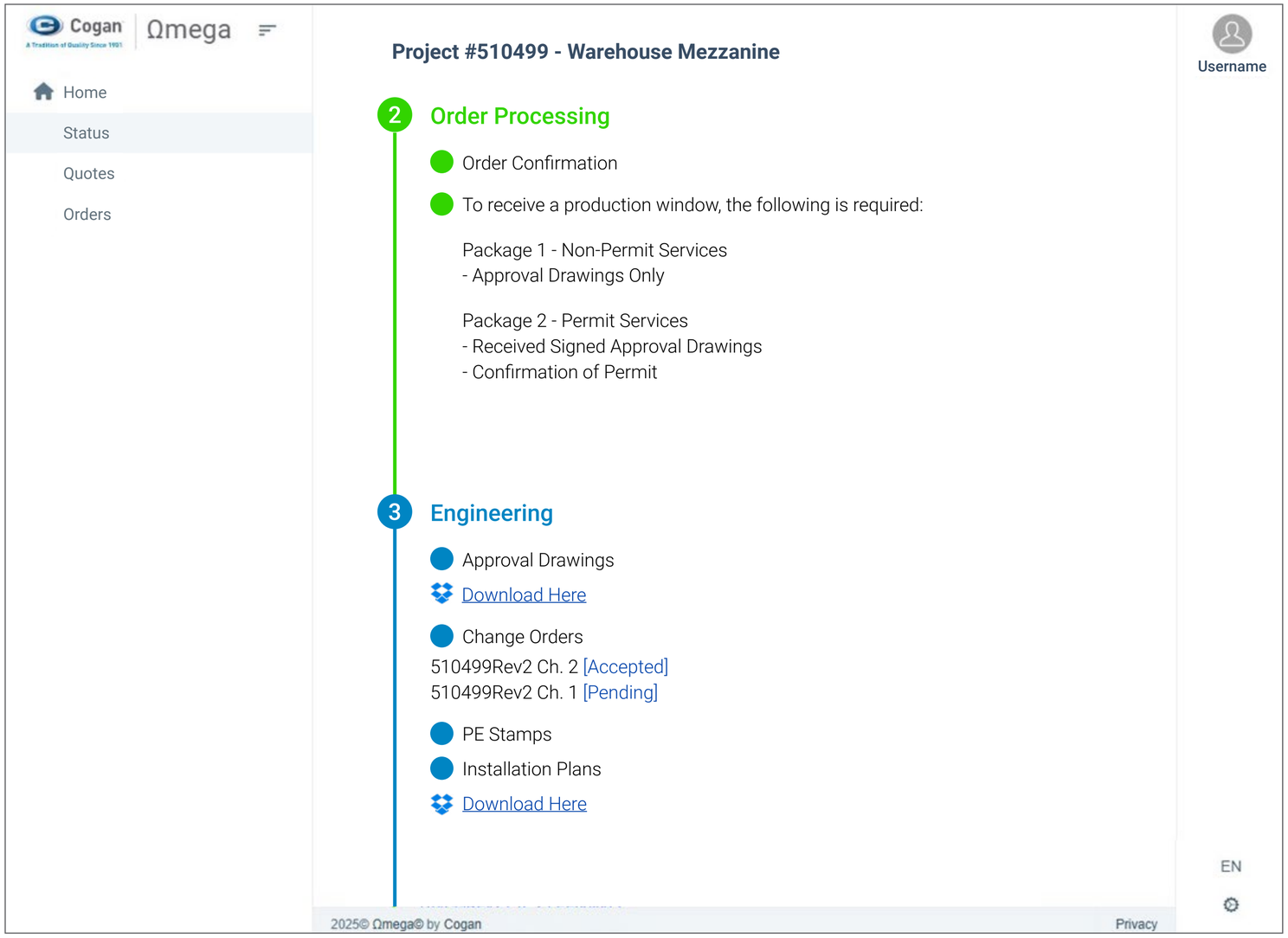
- The Home Team Advantage
  Our recommended installers are always local to the jobsite. That means no travel time, hotel stays or per diem expenses.
- Masters of Craft
  True masters of their craft, our recommended installers have years of experience working with Cogan products.
- Competitive Pricing
  Extensive product knowledge and proximity mean major cost savings for you and your customer.

Plan ahead! To ensure all timelines are respected, please request an installation price at the quoting stage.

Chapter 4

Engineering & Approval Drawings

- The Engineering Stage: *An Overview*
- How To Read Your Approval Drawing
- Verifying Your Approval Drawing On-Site
- Signing & Returning Your Approval Drawing

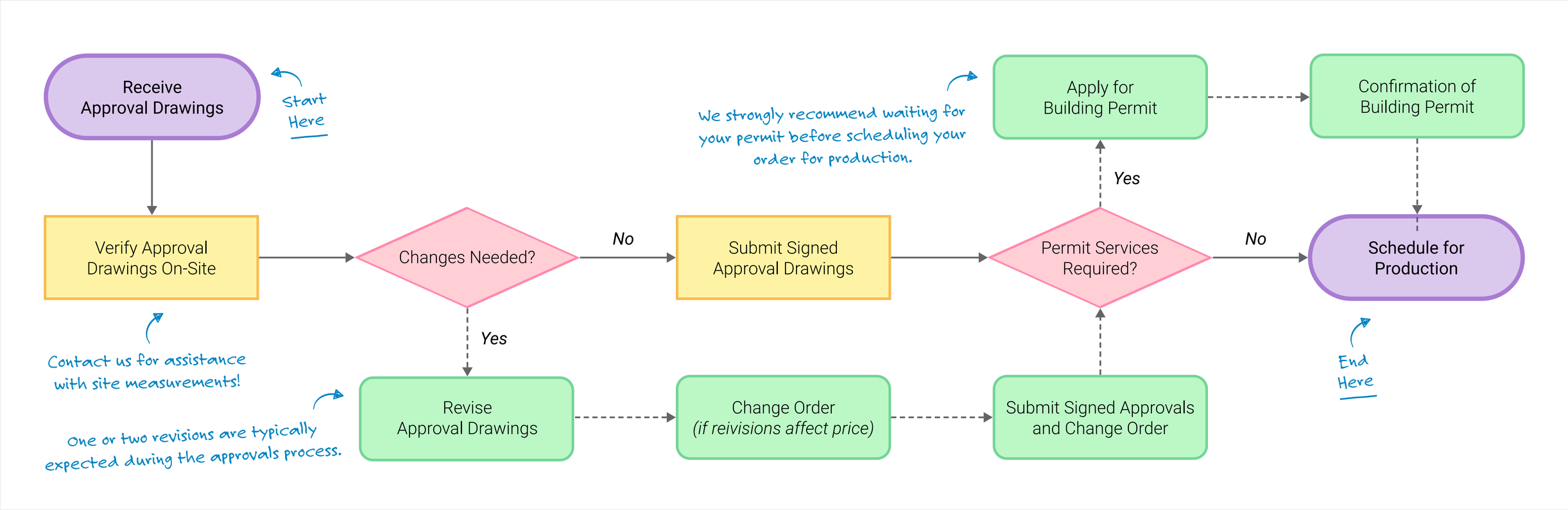


** The above project highway is for example purposes only.*

The Engineering Stage: An Overview

Go with the Flow... Chart

Congratulations on your order! Now that you've closed the deal, we're ready to move into the Engineering stage. This is where we add the finishing touches to your design before it goes into production. For a visual overview of the key steps in this process, please refer to the flow chart below.

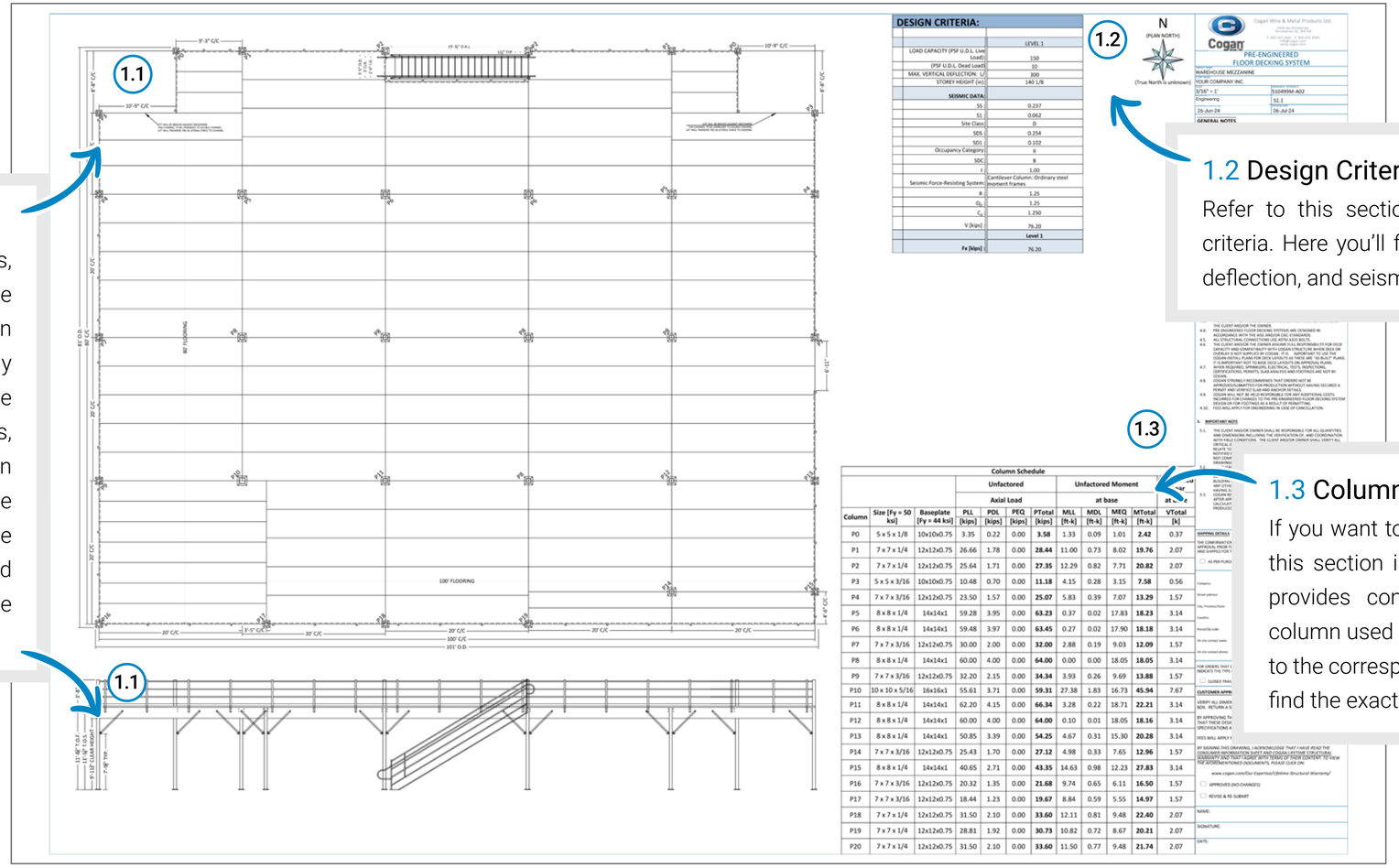


How to Read Your Approval Drawing

The Finishing Touches

#1

Engineering Details



1.1 The Views

Just like the preliminary plans, your approval drawings include a plan view and a front elevation view, but with extra details. Any customizations that could not be shown in the preliminary drawings, such as special cutouts, column spacing, or joist spacing, will be shown here. Please take a close look at all measurements and double-check them against the actual site conditions.

1.2 Design Criteria

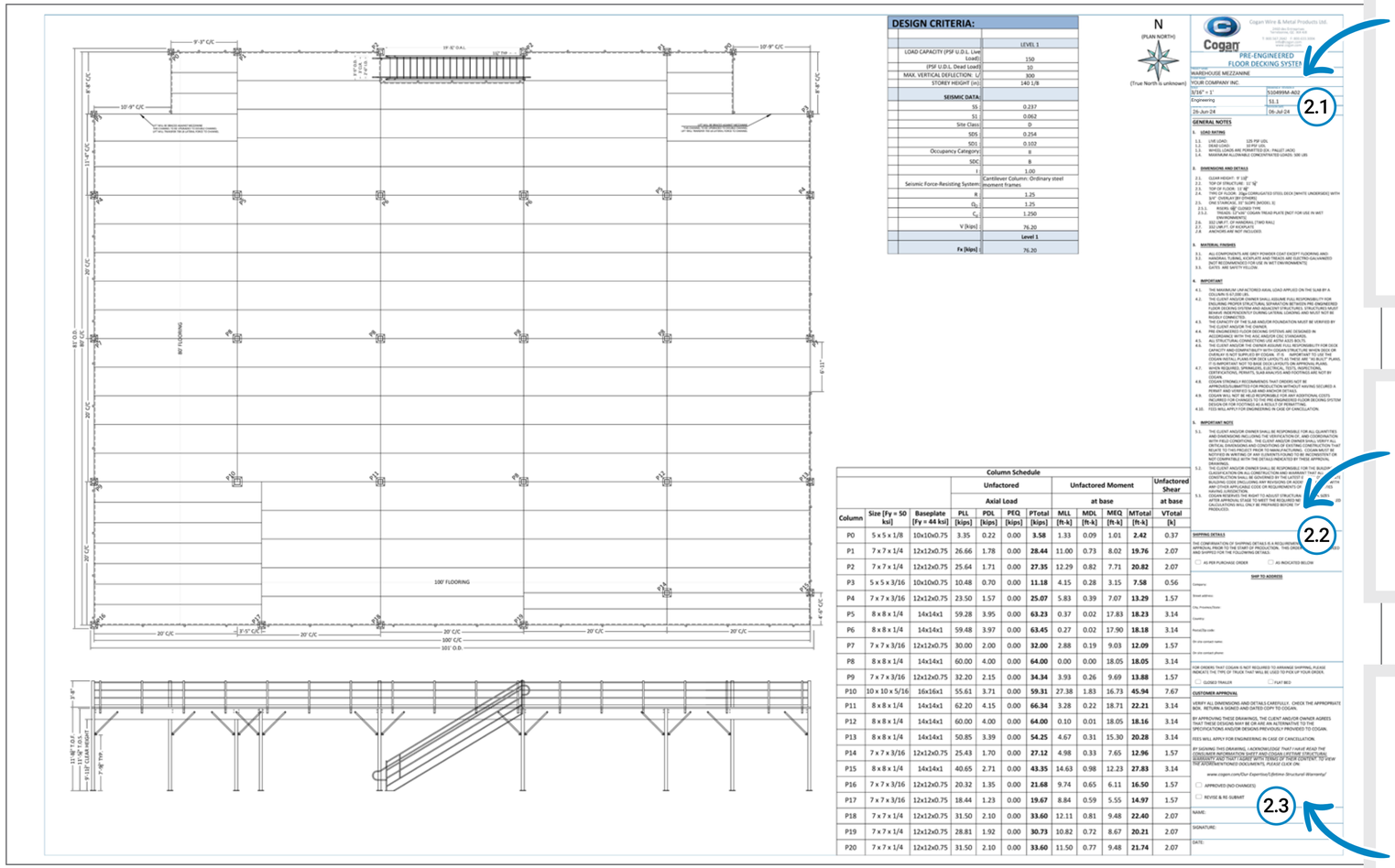
Refer to this section for your mezzanine's design criteria. Here you'll find the load capacity, maximum deflection, and seismic calculations.

1.3 Column Schedule

If you want to geek out over structural details, this section is for you. The column schedule provides complete specifications for every column used in building your mezzanine. Refer to the corresponding letters on the plan view to find the exact location of each column type.

#2

Clerical Details



DESIGN CRITERIA:

	LEVEL 1
LOAD CAPACITY (PSF U.D.L. Live Load):	150
(PSF U.D.L. Dead Load):	10
MAX. VERTICAL DEFLECTION: L/	300
STOREY HEIGHT (in):	140 1/8
SEISMIC DATA	
Ss	0.237
S1	0.062
Site Class	D
SDS	0.254
SD1	0.102
Occupancy Category:	II
SDC	B
I	1.00
Seismic Force-Resisting System:	Cantilever Column: Ordinary steel moment frames
R	1.25
Ω_0	1.25
C_s	1.250
V [kips]	76.20
	Level 1
Fx [kips]	76.20

N (PLAN NORTH) (True North is unknown)

Cogan — PRE-ENGINEERED FLOOR DECKING SYSTEM

WAREHOUSE MEZZANINE

YOUR COMPANY INC.

3/16" = 1' | S1049984-A02 | Engineering | S1.1 | 26-Jun-24 | 06-Jul-24

2.1

GENERAL NOTES

1. LOAD RATING
2. DIMENSIONS AND DETAILS
3. MATERIAL FINISHES
4. IMPORTANT
5. IMPORTANT NOTE

SHIPPING DETAILS

SHIP TO ADDRESS

CUSTOMER APPROVAL

2.2

2.3

Column Schedule

Column	Size [Fy = 50 ksi]	Baseplate [Fy = 44 ksi]	Unfactored Axial Load PLL [kips]	PDL [kips]	PEQ [kips]	PTotal [kips]	Unfactored Moment at base MLL [ft-k]	MDL [ft-k]	MEQ [ft-k]	MTotal [ft-k]	Unfactored Shear at base VTotal [k]
P0	5 x 5 x 1/8	10x10x0.75	3.35	0.22	0.00	**3.58**	1.33	0.09	1.01	**2.42**	0.37
P1	7 x 7 x 1/4	12x12x0.75	26.66	1.78	0.00	**28.44**	11.00	0.73	8.02	**19.76**	2.07
P2	7 x 7 x 1/4	12x12x0.75	25.64	1.71	0.00	**27.35**	12.29	0.82	7.71	**20.82**	2.07
P3	5 x 5 x 3/16	10x10x0.75	10.48	0.70	0.00	**11.18**	4.15	0.28	3.15	**7.58**	0.56
P4	7 x 7 x 3/16	12x12x0.75	23.50	1.57	0.00	**25.07**	5.83	0.39	7.07	**13.29**	1.57
P5	8 x 8 x 1/4	14x14x1	59.28	3.95	0.00	**63.23**	0.37	0.02	17.83	**18.23**	3.14
P6	8 x 8 x 1/4	14x14x1	59.48	3.97	0.00	**63.45**	0.27	0.02	17.90	**18.18**	3.14
P7	7 x 7 x 3/16	12x12x0.75	30.00	2.00	0.00	**32.00**	2.88	0.19	9.03	**12.09**	1.57
P8	8 x 8 x 1/4	14x14x1	60.00	4.00	0.00	**64.00**	0.00	0.00	18.05	**18.05**	3.14
P9	7 x 7 x 3/16	12x12x0.75	32.20	2.15	0.00	**34.34**	3.93	0.26	9.69	**13.88**	1.57
P10	10 x 10 x 5/16	16x16x1	55.61	3.71	0.00	**59.31**	27.38	1.83	16.73	**45.94**	7.67
P11	8 x 8 x 1/4	14x14x1	62.20	4.15	0.00	**66.34**	3.28	0.22	18.71	**22.21**	3.14
P12	8 x 8 x 1/4	14x14x1	60.00	4.00	0.00	**64.00**	0.10	0.01	18.05	**18.16**	3.14
P13	8 x 8 x 1/4	14x14x1	50.85	3.39	0.00	**54.25**	4.67	0.31	15.30	**20.28**	3.14
P14	7 x 7 x 3/16	12x12x0.75	25.43	1.70	0.00	**27.12**	4.98	0.33	7.65	**12.96**	1.57
P15	8 x 8 x 1/4	14x14x1	40.65	2.71	0.00	**43.35**	14.63	0.98	12.23	**27.83**	3.14
P16	7 x 7 x 3/16	12x12x0.75	20.32	1.35	0.00	**21.68**	9.74	0.65	6.11	**16.50**	1.57
P17	7 x 7 x 3/16	12x12x0.75	18.44	1.23	0.00	**19.67**	8.84	0.59	5.55	**14.97**	1.57
P18	7 x 7 x 1/4	12x12x0.75	31.50	2.10	0.00	**33.60**	12.11	0.81	9.48	**22.40**	2.07
P19	7 x 7 x 1/4	12x12x0.75	28.81	1.92	0.00	**30.73**	10.82	0.72	8.67	**20.21**	2.07
P20	7 x 7 x 1/4	12x12x0.75	31.50	2.10	0.00	**33.60**	11.50	0.77	9.48	**21.74**	2.07

Tip: To view a full size version of this approval drawing sample, click here.

2.1 General Notes

The General Notes section is one of the most important parts of your approval drawing. It includes the load rating, dimension details, material finishes, and some key disclaimers. Remember, it is your responsibility to ensure the integrity of the installation site, verify all dimensions and building code compliance, and make sure the mezzanine is built and loaded according to its intended purpose. Please read this section carefully and reach out with any questions or concerns.

2.2 Shipping Details

If your shipping address or method has changed, please let us know during the approval process. We will reconfirm these details as your order approaches its ship date but notifying us early will help speed things up.

2.3 Final Approval

Once you've thoroughly reviewed your drawing, visited the job site, and are 100% sure that everything is perfect, you can confidently sign the drawing as approved. Then, email a copy to the engineer assigned to your project. You'll find their details in the top right corner of the page.

Verifying Your Approval Drawing On-Site

Measure Twice, Cut Once

In the world of customization, there's no room for guesswork. Incorrect measurements can lead to costly mistakes and revisions. Verifying your approval drawings at the job site is your assurance that every component will align seamlessly.

Please do not perform this service alone.

We strongly recommend that you visit the job site with one of your in-house engineers, a Cogan field manager or recommended installer to assist with the measurements. By prioritizing precision, you'll save time, money and most importantly - deliver the quality results that your customer deserves.

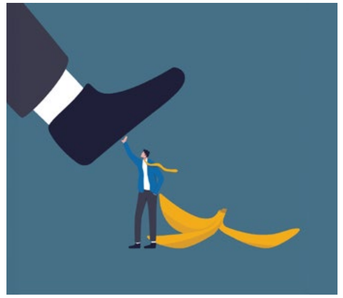
Why are Site Measurements so Important?



Quality Assurance



Installation Efficiency



Avoid Costly Errors

"The attention paid to verifying approval drawings against site measurements will make or break the success of a custom project."

Cogan Sales Team

Take Advantage of our Site Measurement Services

If you need an extra pair of hands-on site, please let us know. We can arrange a site visit with the Cogan field manager or recommended installer nearest you. Their years of experience will ensure site measurements are taken accurately, and approval drawings are verified properly. All you need to do is ask!

Contact your RFQ Manager to schedule a site measurement appointment!

RFQ & Field Support

800.567.2642

info@cogan.com

Tip: Interested in more?

If you love a little chuckle, click the thumbnail to watch a short video about the importance of site measurements!



Signing & Returning Your Approval Drawing

Frequently Asked Questions

You've reviewed your approval drawing, visited the job site, and carefully verified all the measurements. Everything looks great, and you're ready to submit your signed plans. Hooray! But you might be wondering, what comes next? Here are the most frequently asked questions we receive at the end of the Engineering stage.

Q: If ask for a revision to my approval drawing, will I receive a change order as well?

A: Most likely. If the revisions affect the price, for example, you've added an extra staircase or modified the dimensions, then you will need to approve a change order.

You may also receive a change order if the cost of steel has fluctuated since your original order date. This is less likely to happen, but market volatility sometimes forces us to adjust our pricing.

In both cases, simply sign the cover page of your change order and submit alongside your approval drawings.

Q: When will I receive my PE Stamped Plans and / or other Permit Services?

A: As soon as you've signed off on your Approval Drawing, we can begin the process for PE Stamps. The turnaround time is typically 5-10 business days.

Slab analysis can start as early as the quoting stage. The more information we have upfront, the faster the approval process will be. However, any design changes due to slab integrity can still be addressed in Engineering and adjusted accordingly.

Q: Should I wait for my permit before scheduling my order for production?

A: Yes, we strongly recommend waiting to receive your

(cont'd)

permit before scheduling your order for production. If your permit is not approved or design changes are required, this could result in production delays, additional changes, and/or cancellation fees.

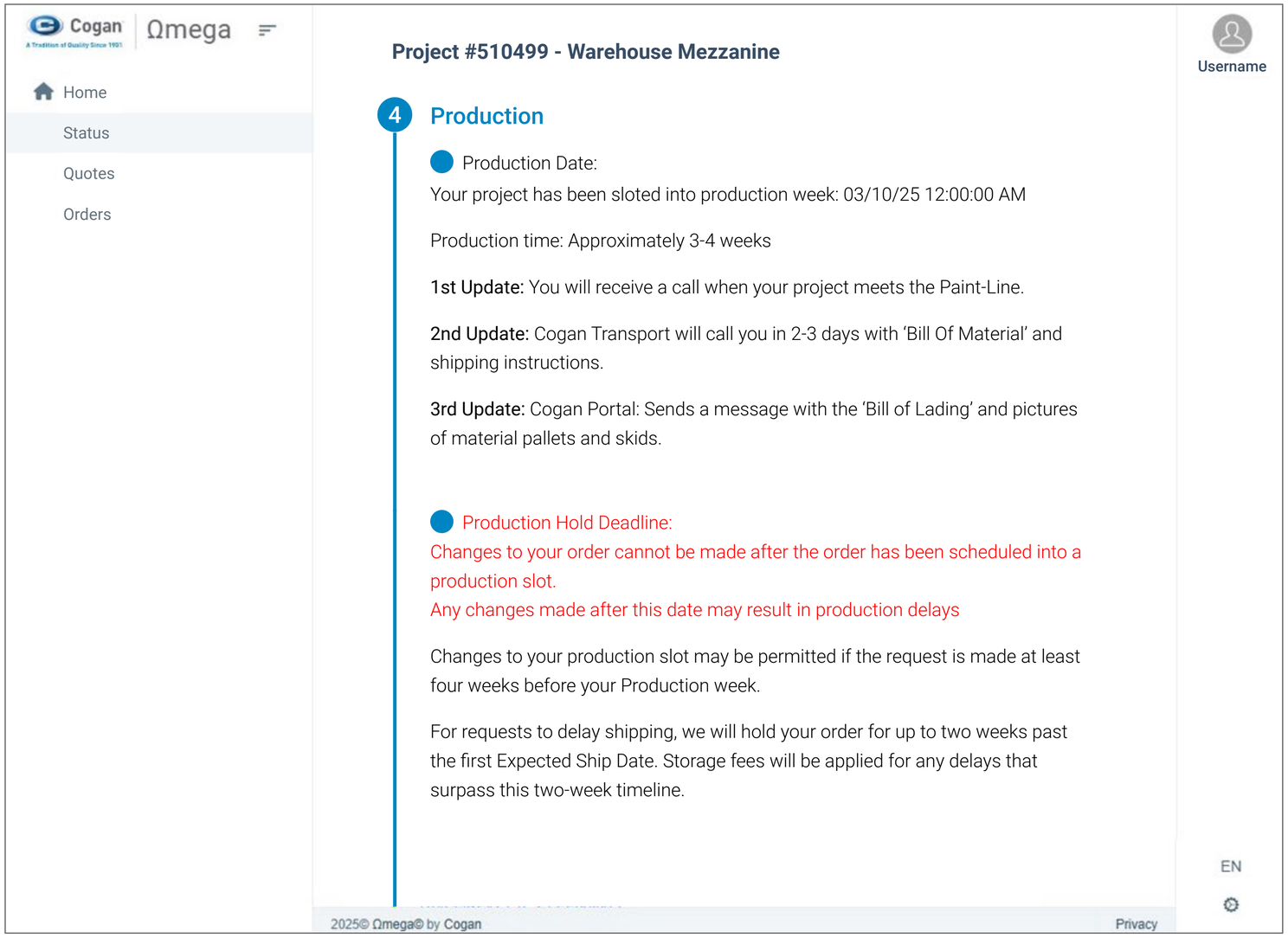
Q: When will I receive a delivery date?

A: Once you've signed your approval drawing and obtained your permit (if required), our Production Team will assign your order to a production slot. You will be notified via email notification and the Dealer Portal. Please allow 3-4 weeks of production time from this date. We will call you once your order reaches the paint line with a more precise ship date, usually within the second or third week of production.

Chapter 5

Production & Quality Control

- Preparing for Production
- Generating Production Papers
- Final Verification & Quality Control

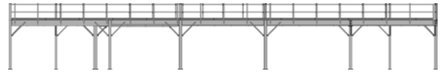


** The above project highway is for example purposes only.*

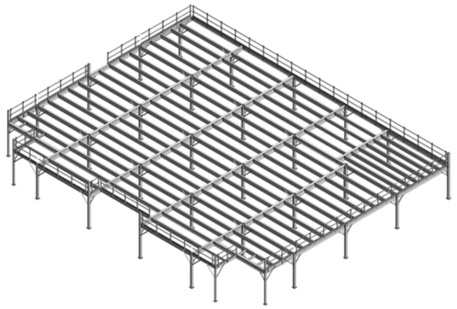
Preparing for Production

From Concept to Reality

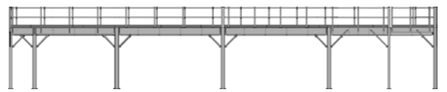
You've turned your quote into an order, navigated the approvals process, finalized your design, and obtained your permit. You've come a long way! Now, it's time for us to do what we do best – build your mezzanine. In the following pages, we'll pull back the curtain and show you how we transform your project from concept to a fully realized structure. It all starts with a 3D model



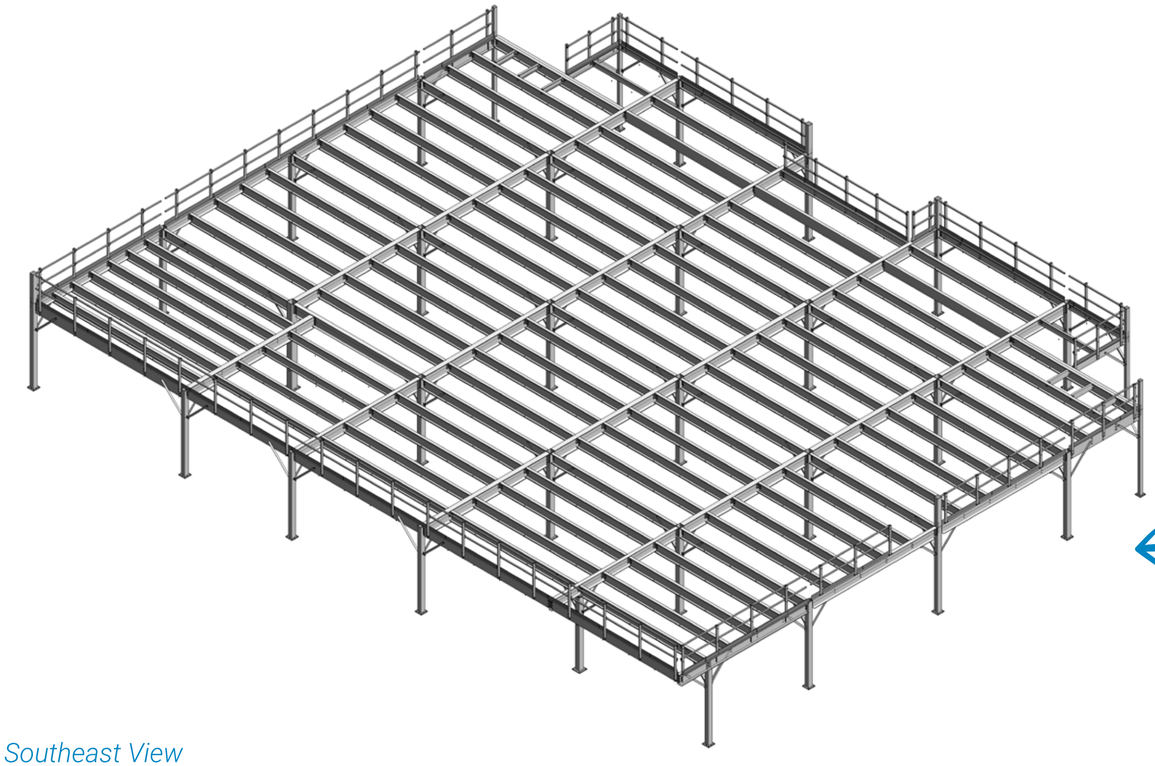
Front View



Northwest View



Side View



Southeast View

It all starts with a 3D model.

Based on your signed approval drawings, our Engineers get to work on preparing your order for production. The first step is to generate a 3D model of your mezzanine, which will serve as the master blueprint for the entire process. From production papers to CNC instructions and installation drawings, your mezzanine is brough to life, right down to the last bolt.

This is as close as it gets to *actually* building your order.

Time spent here ensures precision, accuracy, and minimizes human error. It is state-of-the-art technology at its finest.

Generating Production Papers

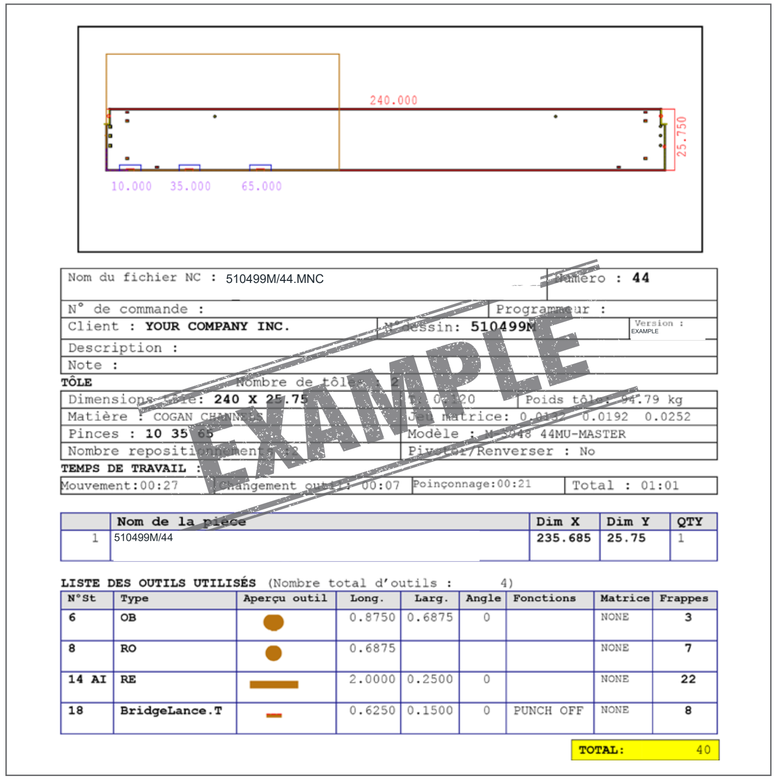
From 3D to CNC

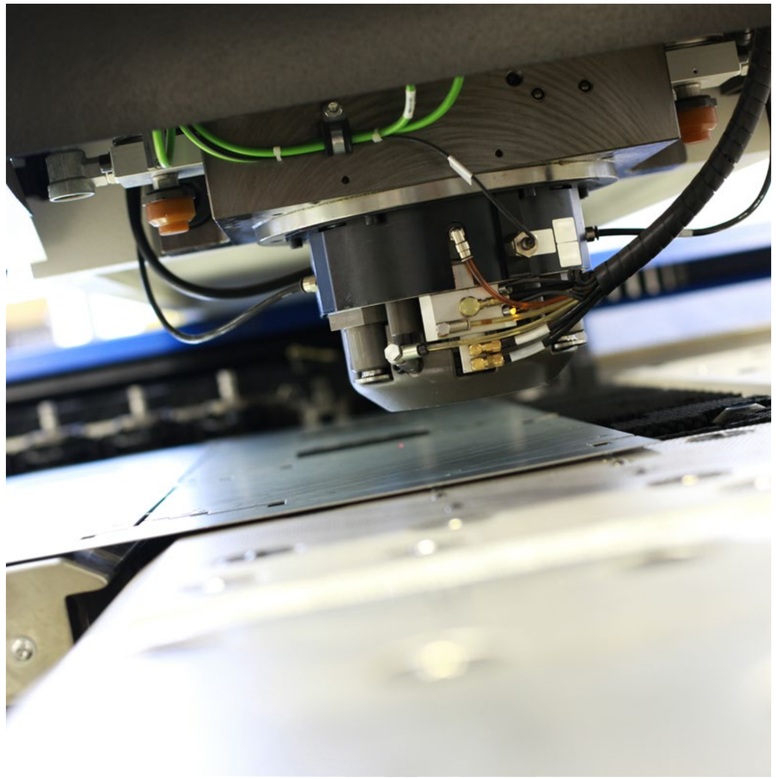
From the 3D model, our Engineering team creates the production papers needed to manufacture your mezzanine. This detailed information is sent directly to our CNC machines, ensuring all components are cut to size with maximum precision and efficiency. Afterward, the individual parts go through a robotic paint application process, providing a superior quality paint finish.

What are the advantages of CNC manufacturing?

CNC stands for Computer Numerical Control. CNC machines perform precision manufacturing using core-programmed computer software. These machines feature a table that rotates or moves the workpiece in different planes. CNC milling machines take a 3D Computer Aided Design (CAD) model and convert it into a series of computer instructions. These instructions guide the CNC machine and tooling to move the workpiece automatically.

The manufacturing industry greatly benefits from CNC machining. Compared to manual methods, CNC technology offers remarkable precision and consistency. Each piece is cut to exact specifications, resulting in fewer errors and less waste. This efficiency also translates to faster production times, a safer work environment, and more cost-effective operations.





Final Verification & Quality Control

From Start to Finish

At Cogan, we take quality seriously. From preparation to production, every stage of our process undergoes rigorous quality control checks. We want to ensure you are completely satisfied with your product.

Here are the steps we take to clear every order before it leaves our facility:

1. **Initial Inspection**

   We start with a thorough examination of all raw materials to ensure they meet our quality standards.

2. **Pre-Production Verification**

   All production papers are verified by a Senior Engineer before your order for into production.

3. **In-Process Checks**

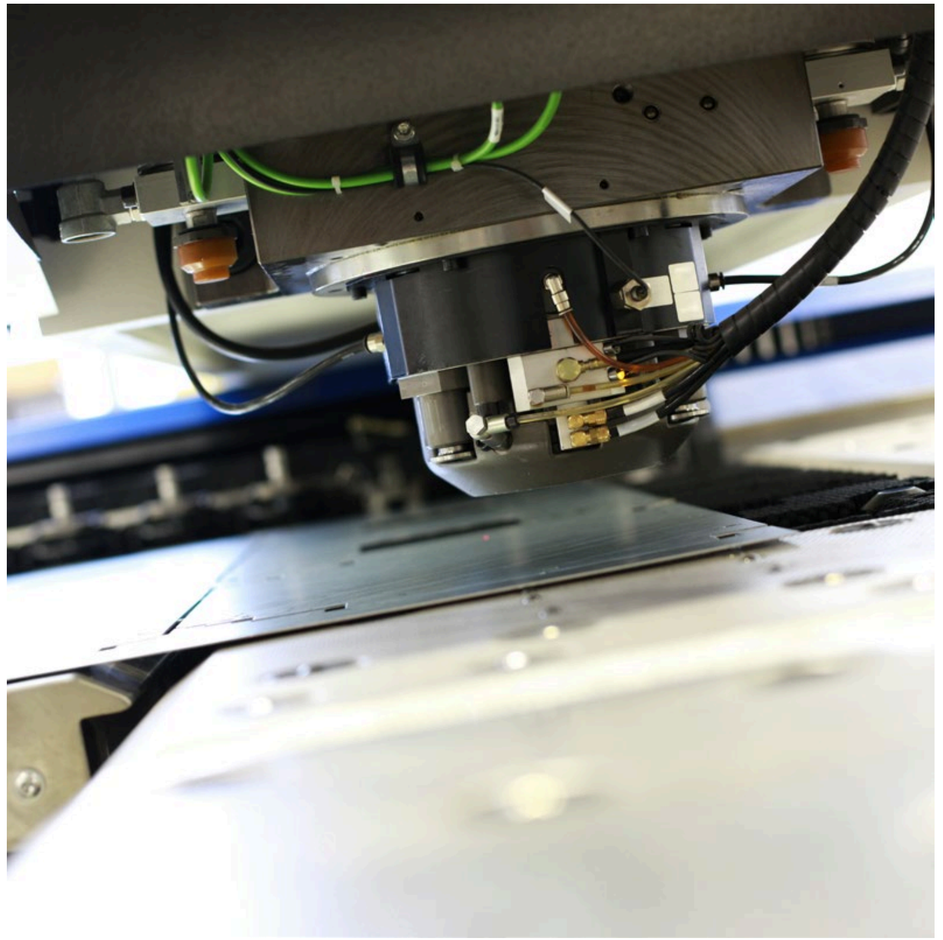
   During production, we perform continuous inspections to verify measurements, alignment, and precision.

4. **Post-Production Review**

   Once your project exits the paint line, it undergoes a detailed review to check for any defects or inconsistencies.

5. **Final Quality Assurance**

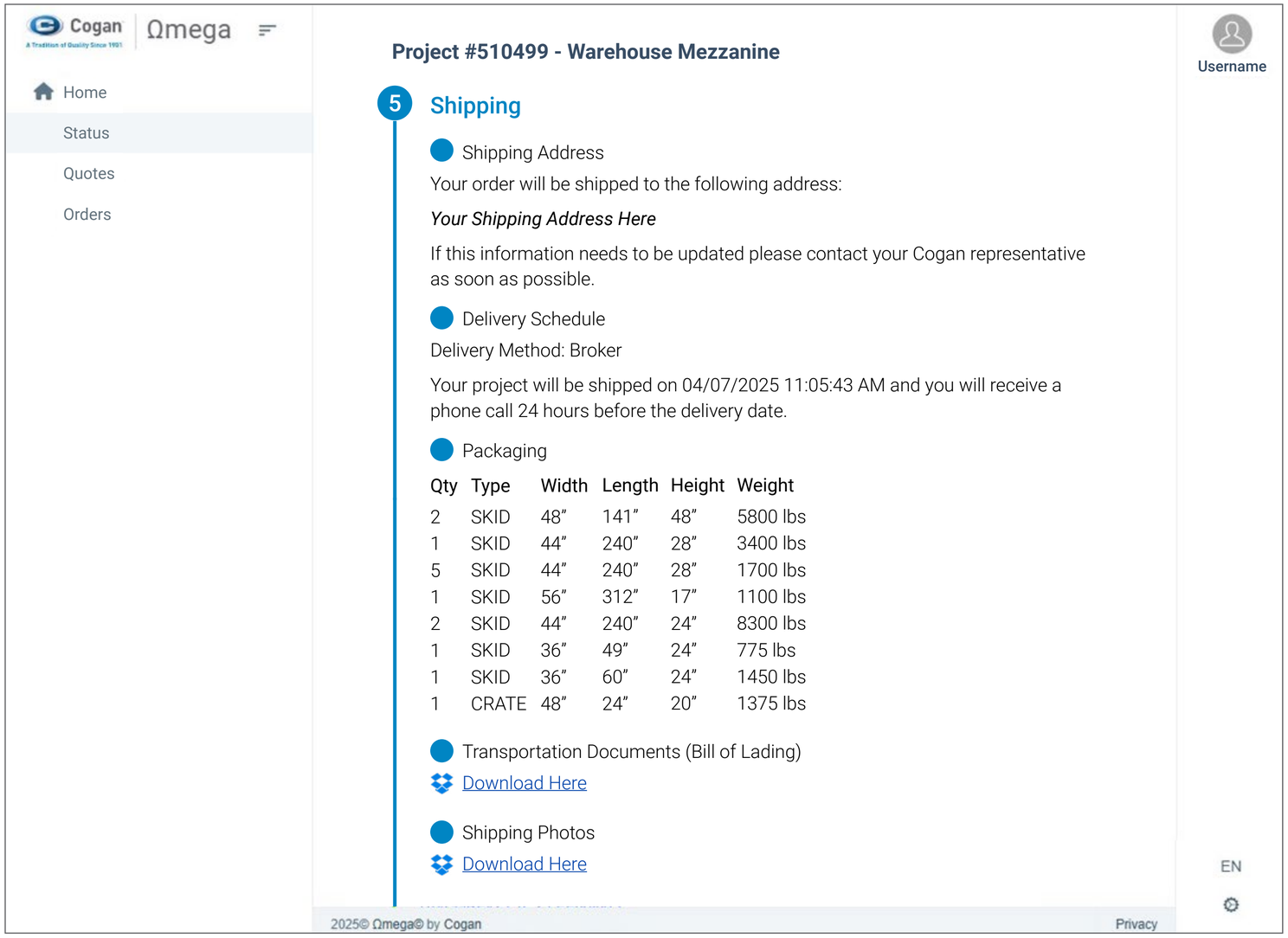
   Before packaging, our shipping team conducts a final inspection to ensure everything meets our high standards.



Chapter 6

Preparing to Receive Your Mezzanine

- Installation Drawings & Manuals
- Shipping & Delivery
- Successful Installation
- Engineering Support & Warranties



** The above project highway is for example purposes only.*

Installation Drawings & Manuals

We're Almost There!

The grand finale of any successful project is a seamless installation, and we want to make sure your experience is exactly that. We provide you with all the instructions you need for a smooth installation. From detailed plans to step-by-step manuals, we've mapped out the entire process from A to Z.

1.1 Installation Drawings

Our Engineering team generates custom installation drawings for every single mezzanine that leaves our facility. Assembly is easy to follow with a complete list of components and corresponding number tags that indicates their exact location on the floor plan.



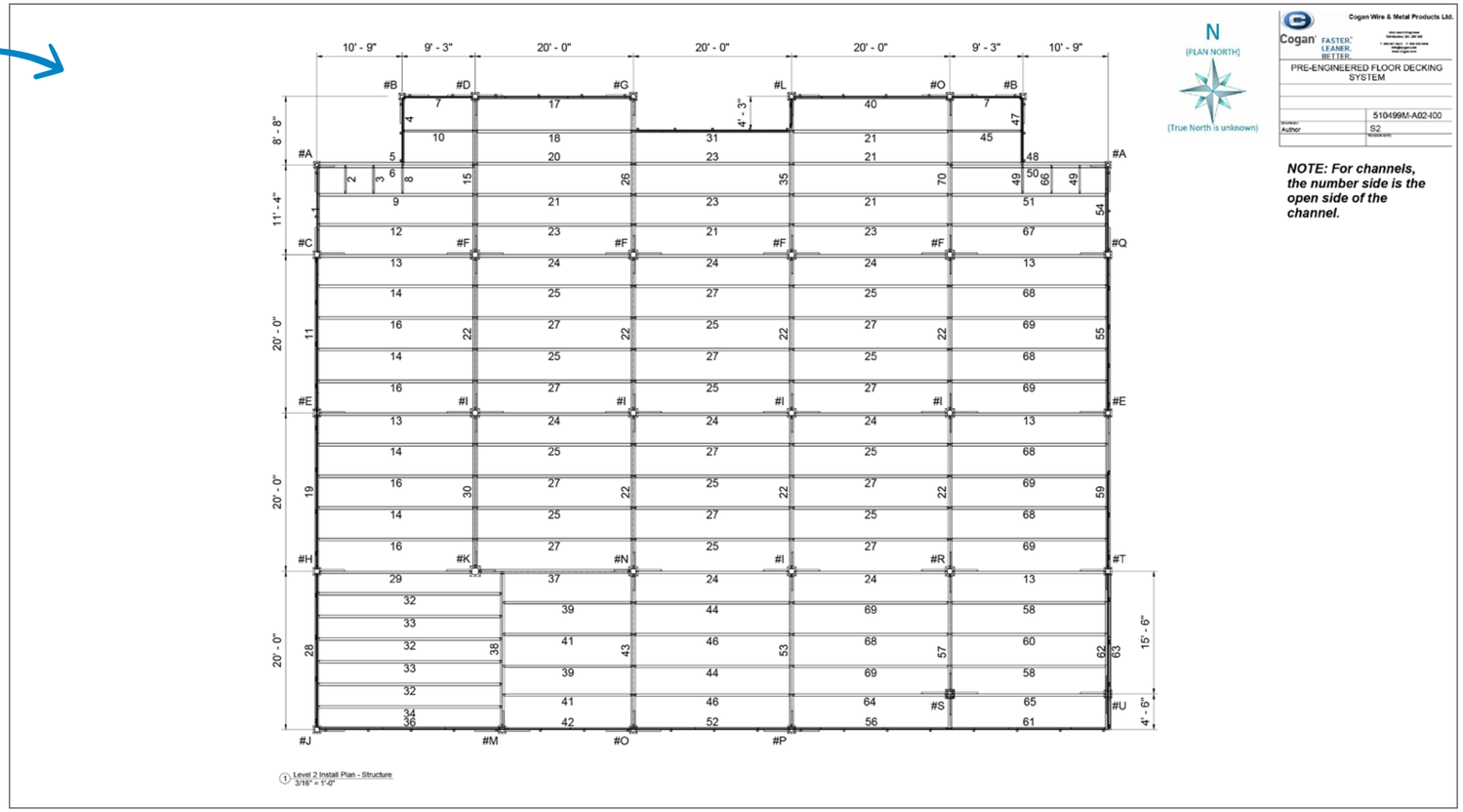
5 **Engineering**

Installation Drawings

Download Here

Plan ahead!

Installation drawings will be available for download on the Dealer Portal one week before your order is scheduled to go into production. This allows you enough time to print the plans in large format (if necessary), review them with your installation team, and arrange a staging area for the materials.



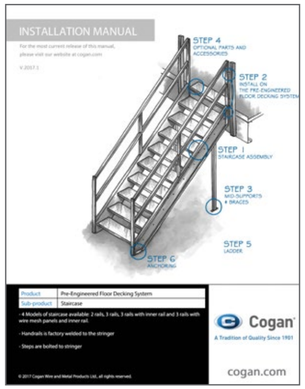
Tip: To view the complete package of this installation drawing sample. click here.

1.2 Installation Manuals

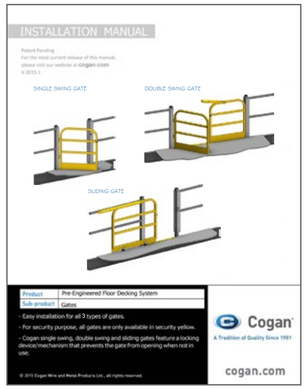
Our installation manuals are designed to complement your installation drawings. While the drawings indicate where each component should be placed, the manuals provide detailed instructions on how to assemble each part. Be sure to reference both resources when building your mezzanine.



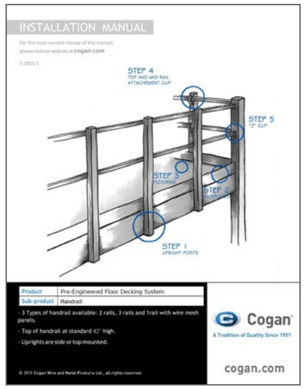
Mezzanine Braces



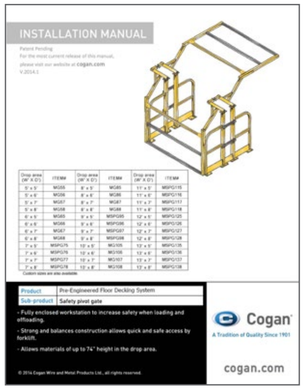
Staircases & Ladders



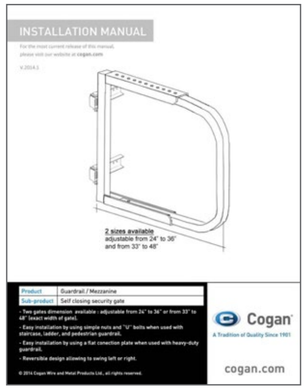
Gates



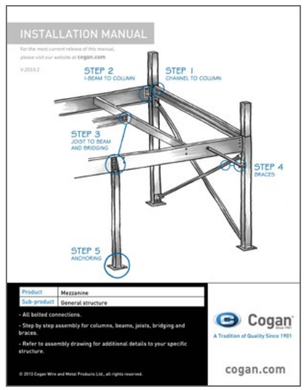
Handrails



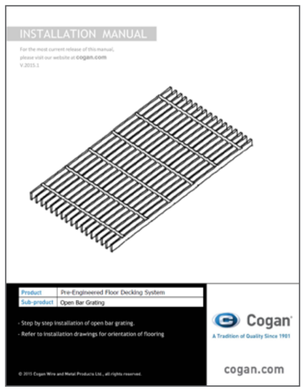
Safety Pivot Gates



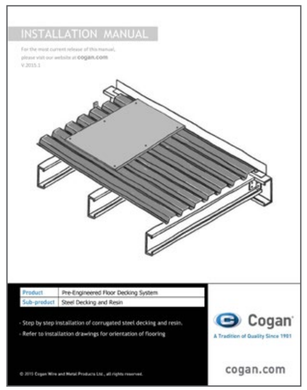
Self-Closing Safety Gates



Mezzanine General Structure



Open Bar Grating Flooring



Steel Deck & Resin Board Flooring



Concrete Flooring



Diamond Grip Flooring



Installation Tips

Tip: Click on any thumbnail to view the complete installation manual (PDF).

Shipping & Delivery

Signed, Sealed, Delivered

The time has come. All your hard work, careful planning, and effort have paid off. Your mezzanine is ready to ship! **Here is what you can expect as your order approaches its ship date:**

1. **First Update:** Paint Line



Only a few days to go!

Our Transport Department will call you when your order reaches the paint line. This is to give you a heads-up that your order will be ready in a few days.

- If you opted for Cogan Shipping Services, we would also ask for final confirmation of your ship-to address at this time.

2. **Second Update:** Ready to Ship

Qty	Type	Width	Length	Height	Weight
2	SKID	48”	141”	48”	5800 lbs
1	SKID	44”	240”	28”	3400 lbs
5	SKID	44”	240”	28”	1700 lbs
1	SKID	56”	312”	17”	1100 lbs
2	SKID	44”	240”	24”	8300 lbs
1	SKID	36”	49”	24”	775 lbs
1	SKID	36”	60”	24”	1450 lbs
1	CRATE	48”	24”	20”	1375 lbs

Prepare to receive your material

Two to three days after the initial notice, our Transport Department will call you again to provide the bill of materials, shipping weight, and dimensions.

- If you’ve arranged your own transport, you can now send your pick-up. You’ll have two weeks to collect your order from our facility.
- If you’re using Cogan Shipping Services, there’s nothing for you to do except wait for your mezzanine to arrive!

3. **Third Update:** Shipped



We take pictures of every order.

Once your order has shipped, a copy of the Bill of Lading and complete shipping photos will be available on the Dealer Portal for your reference.

4. **Fourth Update:** Delivery

(Cogan Shipping Services only)



It’s time!

Our Transport Broker will call you 24 hours before delivery.

Sucessful Installation

The Grand Finale

In order to ensure your installation runs smoothly, it's important to have your job site is properly prepared to receive material. If you follow these key points, we guarantee a fast, effortless and successful installation.

Here are our top 4 tips for a successful installation:

1. **Scheduling**

   We highly recommend waiting for your materials to arrive before scheduling your installation crew. Although we strive to ensure timely deliveries, unexpected delays can occur during transit. To avoid any extra costs, play it safe and wait until your shipment arrives.

2. **Unloading**

   Large projects are extremely difficult to unload by hand. For your convenience, we recommend that you have a loading dock to receive material. This will allow you to unload larger, heavier components with a fork truck.

3. **Staging**

   It is very important to have a staging area. You will need adequate space to do a material count and group components accordingly. Being well-organized is essential for a successful installation. If possible, your staging area must be indoors or otherwise protected from the elements. Rain exposure may cause powder-coated components to rust.

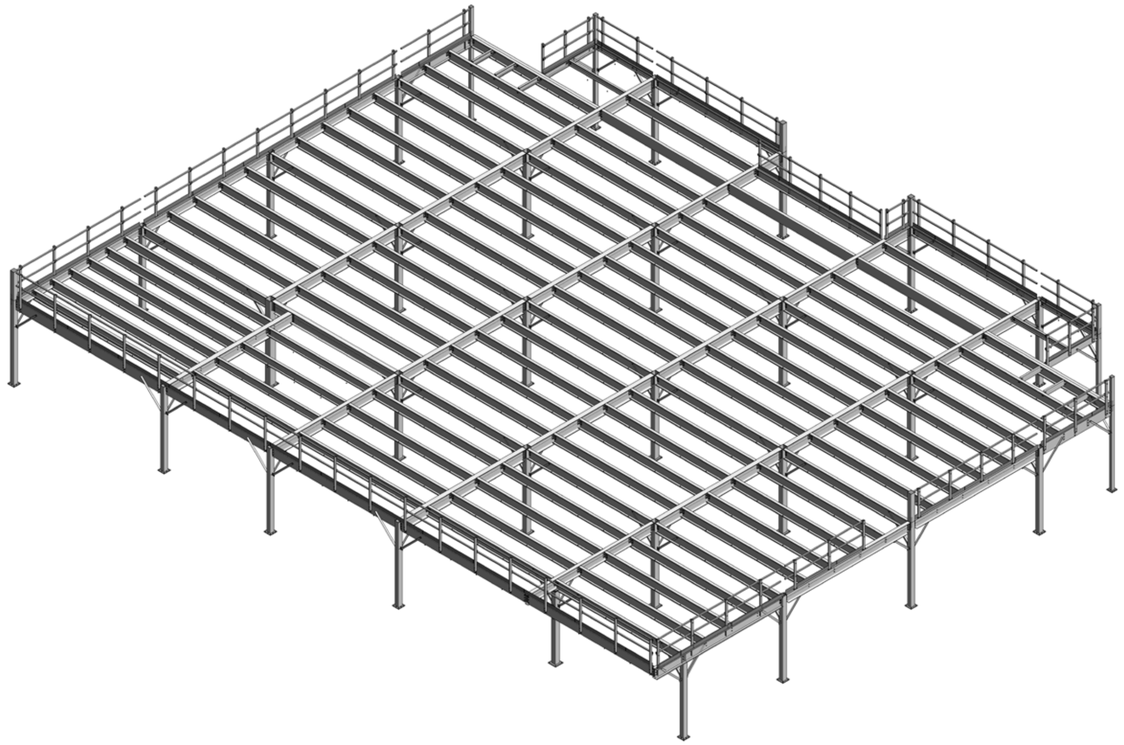
4. **Ease of Installation**

   While Cogan mezzanines are easy to assemble, please make sure that you have an experienced installation team. If you do not have access to skilled personnel, we will be more than happy to connect you with a Cogan Recommended Installer in your area. Our goal is to build products that integrate seamlessly with your work environment. We want you back on track as quickly as possible with minimal disruption to your process.



Engineering Support & Warranties

We're Always Here to Help



1. Engineering Support

Success is a team effort, and we're here to support you every step of the way. From approvals to installation, our engineers are always available to answer your questions and provide technical assistance—just give us a call!

2. Warranties & Consumer Information

For added peace of mind, every Cogan mezzanine is backed by our comprehensive warranties. With over 100 years of manufacturing experience, we want to make sure you get the most out of your investment. We've been here since 1901, and we've engineered that same longevity into our products.

Click Here to download our Limited Lifetime Warranty (PDF)

Click Here to download our 1-Year Work Performed/Materials Furnished Warranty (PDF)

Click Here to download our Consumer Information Sheet (PDF)

Click Here to download our Steps to a Successful Project Guide (PDF)

Click Here to download our Warranty Claims and Repairs Form (PDF)

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Cogan

A Tradition of Quality Since 1901

Thank you

Thank you for your time.
We hope you enjoyed the presentation.

Questions?
Ask away!