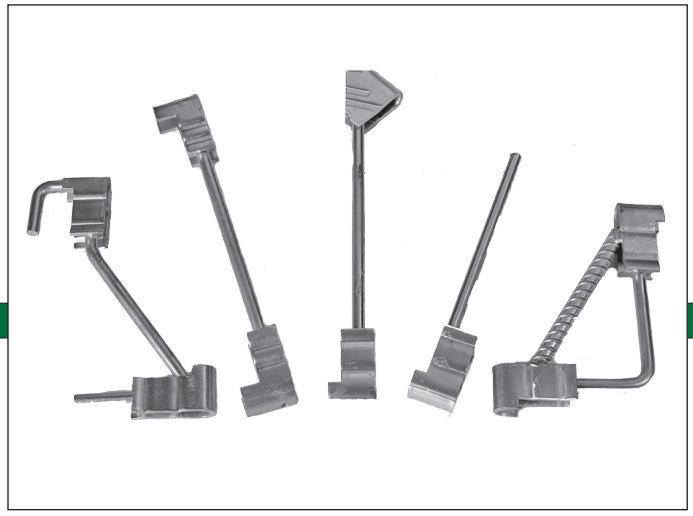
SureBuilT
Concrete Forms & Accessories

Bridge Deck Forming System



Safety Information

Read, understand and follow the information in this publication before using any of these SureBuilt bridge deck products and accessories. When in doubt about the proper use or installation of any SureBuilt product, immediately contact the nearest SureBuilt branch for clarification.

SureBuilt products are intended for use by trained, qualified and experienced users only. Misuse or lack of supervision and/or inspection can contribute to serious accidents or deaths. Any application other than those shown in this publication should be carefully tested and supervised before use.

The user of SureBuilt products must evaluate the application, determine the safe working load and control all field conditions to prevent load in excess of product(s) capacity. Safety factors shown in this publication are approximate minimum values. The data used to develop safe working loads for products is a combination of actual testing and/or other industry sources. Do not exceed the recommended safe working loads.

Worn Parts
For safety, bridge deck products and accessories must be properly maintained. Products may be subject to wear, overloading, corrosion, deformation, alteration and other factors that may affect performance. It is the responsibility of the user to schedule regular inspections and remove worn and damaged parts from service.

Field Modification
Field welding can compromise product performance, alter load capacities, and create hazardous situations. Consult with a local welding supply dealer to determine appropriate welding procedures. Do not weld any casting unless approved by a licensed metallurgical engineer. SureBuilt can not be responsible for any product alterations or field modifications.

Interchangeability
Bridge deck products manufactured and supplied by SureBuilt are designed as a system. When used properly, SureBuilt products have proven to be among the best and safest in the industry. SureBuilt strongly discourages efforts to interchange products supplied by other manufacturers because it may diminish the performance and safety of the system.

Design Changes
SureBuilt reserves the right to change product designs, specifications, capacities and/or dimensions at any time and without prior notice.

Safety Factors
Safety factors established by the Occupational Safety and Health Administration (OSHA), Act Part 1910 and American National Standards Institute (ANSI 10.9) are recommended. Safety factors should be adjusted when different or unusual conditions exist.

Industry Recommendation	
Safety Factor*	**Intended Application**
2 to 1	Form Hanger
2 to 1	Formwork
3 to 1	Form Anchor

** Minimum requirement.*

Table of Contents

Product specifications subject to change without notice.

Interior Hangers

Interior bridge deck hangers are typically fabricated using two steel end clips that have been welded to an appropriate sized wire or formed metal connecting strut. In most cases, the end clips used on interior hangers locate two coil bolts, one on each side of the bridge beam, at 90° to the top surface of the beam. These hangers can be used on rolled structural steel beams, fabricated steel plate girders or precast/prestressed concrete girders.

Sometimes there is a need for an interior half hanger that may be welded to the top flange of a steel beam, attached to the shear studs on a steel beam or the rebar shear connectors on concrete girders. However, most Department of Transportation (DOT) specifications prohibit any type of field welding to flanges in tension zones, restricting welding to compression zones only. When this restriction is encountered, several types of clip-on hangers are an available alternative.

Interior hangers are placed at predetermined locations along the top of the interior bay beams to support bridge deck formwork loads, including the live load, dead load and formwork load. Once the formwork has been completed and concrete is placed, the interior hangers support the weight of the freshly placed concrete. After the concrete reaches a specified strength, the hardware and formwork are removed.

All interior hangers are identified by the shape of the end section. Unless noted, all end sections are designed to accept a standard 1/2” diameter coil bolt/rod and nut. Since flanges will vary, it is essential to have the beam dimensions before ordering.

For safety reasons, a qualified person must accurately calculate the loads for the interior hanger. Calculated loads must be equal to or less than the safe working load. Contact the SureBuilt for assistance in determining the applied loads and interior hanger spacing.

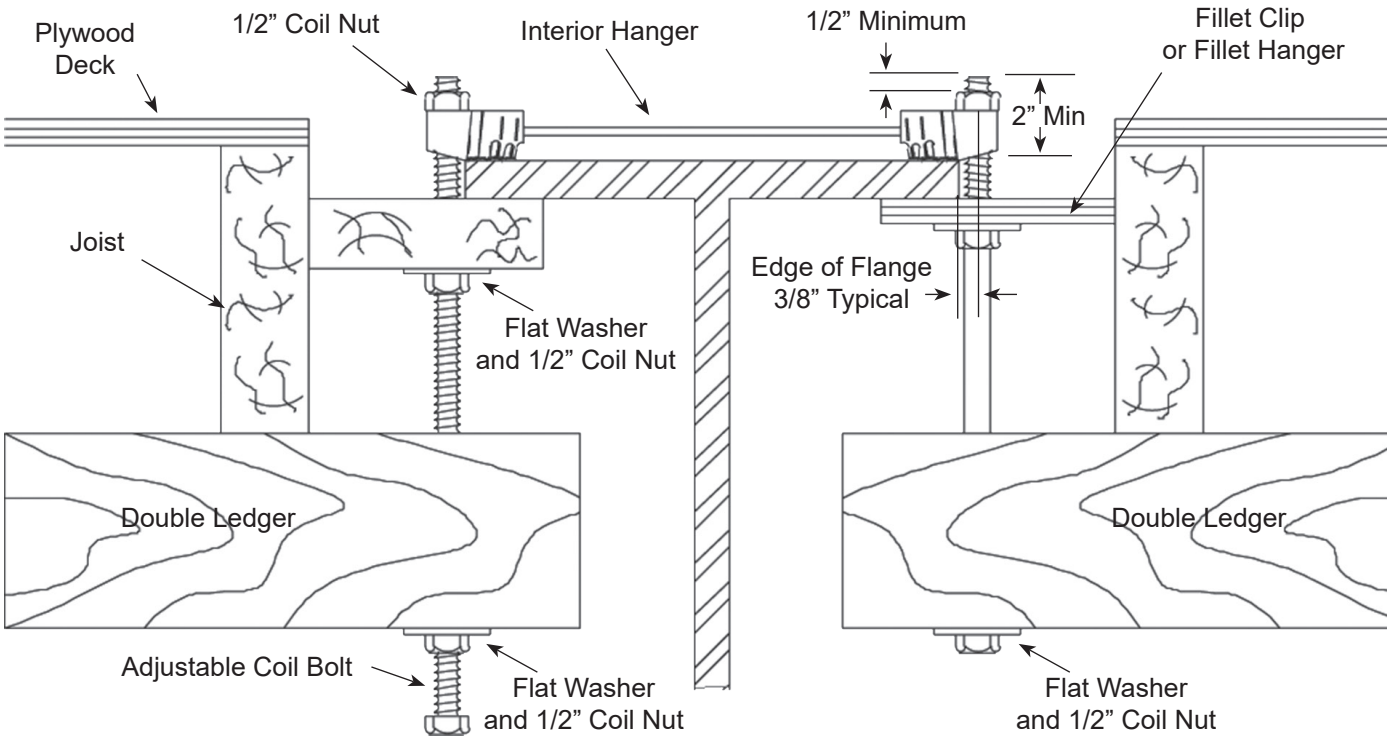
Product specifications subject to change without notice.

Type 1 Interior Hanger

When a bridge deck is designed with a fillet that extends a short distance away from the edge of the beam (shown below), a Type 1 Interior Hanger is often selected. The hanger is designed to allow 1/8” maximum clearance between the edge of the beam and the supporting 1/2” diameter coil bolt.

Turning the coil nuts will raise/lower the bridge deck formwork to grade. Any adjustment must always maintain a thread penetration greater than 1/2” when measured from the top of the coil nut.

Full bearing of the end clips is required to maintain the safe working load of the hanger. Hangers must be loaded equally on both sides to maintain formwork balance and prevent tipping.



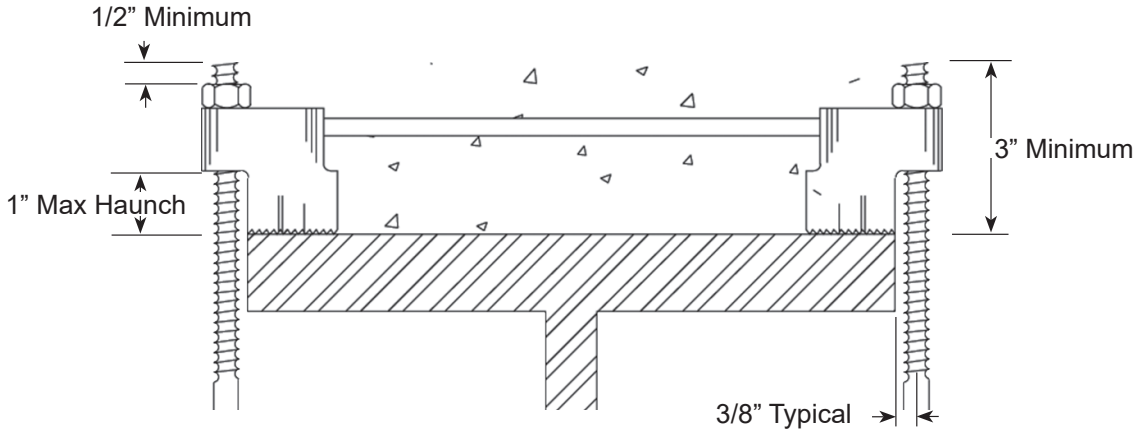
Adjustable Coil Bolt Assembly

Fixed Length Coil Bolt Assembly

Safe Working Load: 3,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 2 Interior Hanger

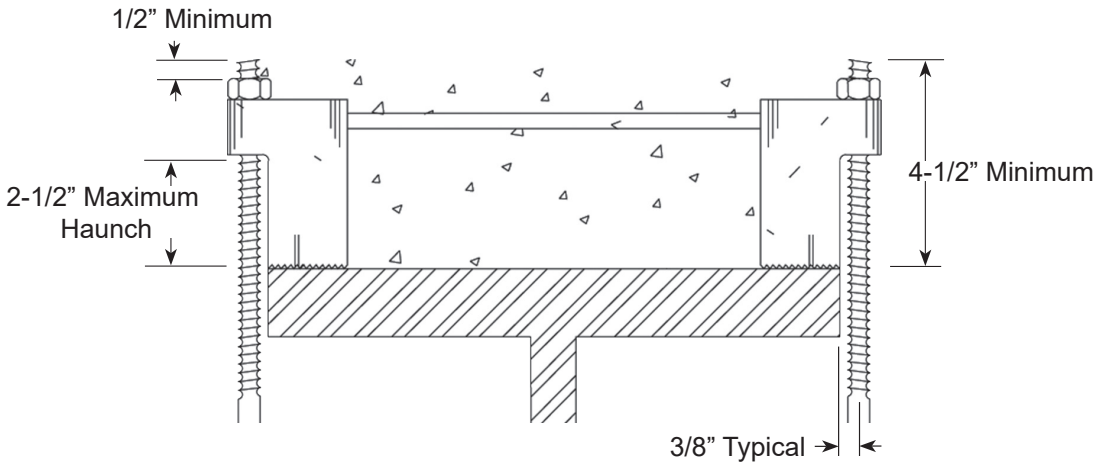
The Type 2 Interior Hanger is designed for a bridge deck haunch up to 1”, with 1/8” maximum clearance between the edge of the beam and the 1/2” coil bolts. To avoid decreasing the safe working load of the hanger, full bearing of the end clips is required.



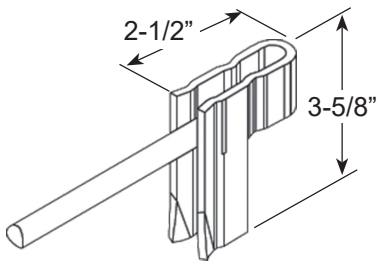
Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 3 Interior Hanger

The Type 3 Interior Hanger is designed for a bridge deck haunch up to 2-1/2”, with 1/8” maximum clearance between the edge of the beam and the 1/2” coil bolts. The hanger uses a corrugated strap to support the end clips, which are bent outward to provide stability under load.



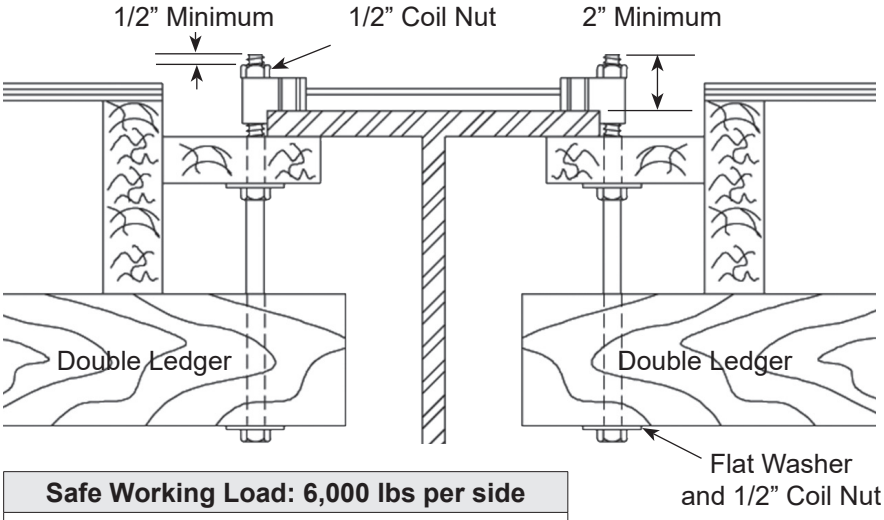
Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

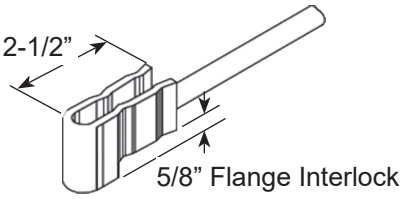


Type 3 Hanger with flared leg for stability

Type 4 Interior Hanger

The Type 4 Interior Hanger is a heavy-duty strut design (.440) used when there is a fillet next to the flange. The end clips accept 1/2” coil rod/washer/nut to support the interior formwork loads. The interlock portion of the end clip provides a reaction point that reduces bending when hangers are used on extremely wide flanges.



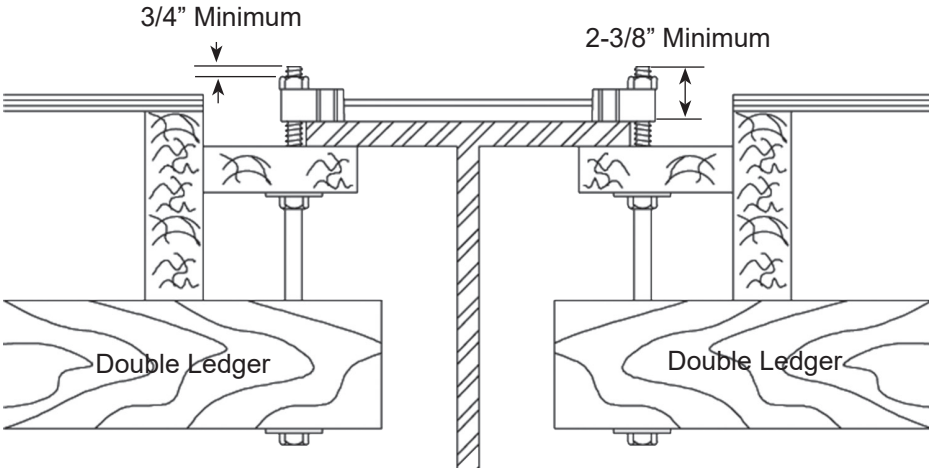


Type 4 Hanger with heavy-duty .440 strut

Safe Working Load: 6,000 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 5 Interior Hanger

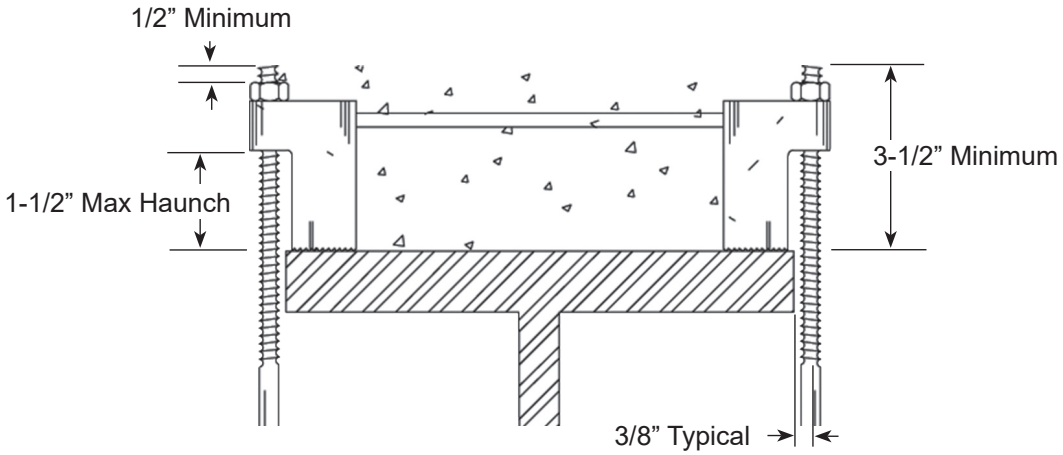
This Type 5 Interior Hanger is a heavy-duty strut design (.440) used when there is a fillet next to the flange. The end clips accept 1/2” coil rod/washer/nut to support the interior formwork loads, but the clips do not “interlock with the beam flange.



Safe Working Load: 6,000 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 7 Interior Hanger

The Type 7 Interior Hanger has the capacity to accommodate haunch heights up to 1-1/2”. The hanger is designed for full bearing under the end clips. It is essential to check the exact beam width dimensions before ordering.

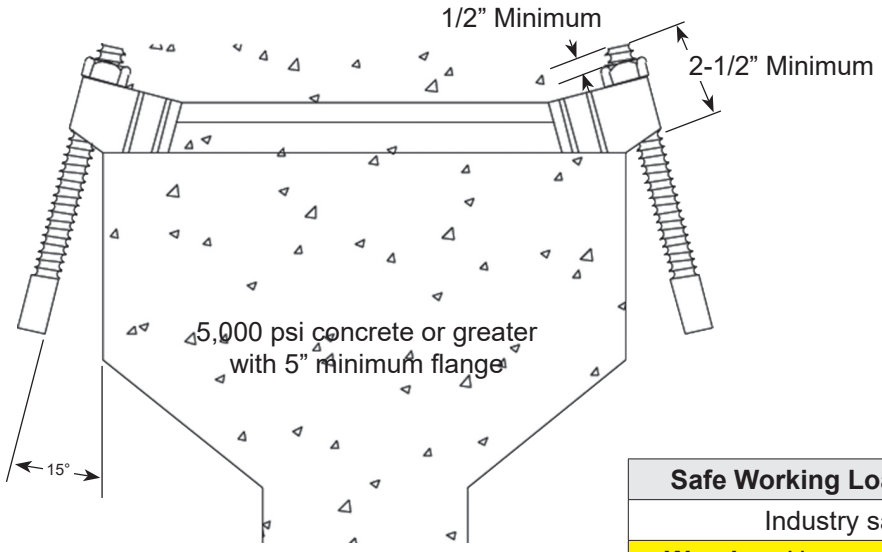


Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 8 Interior Hanger

The Type 8 Interior Hanger is designed with end clips that angle the 1/2” coil rod 15° from vertical. It is available with a standard 0.375 strut (4,500 lbs per side) or a heavy-duty .440 strut (6,000 lbs per side).

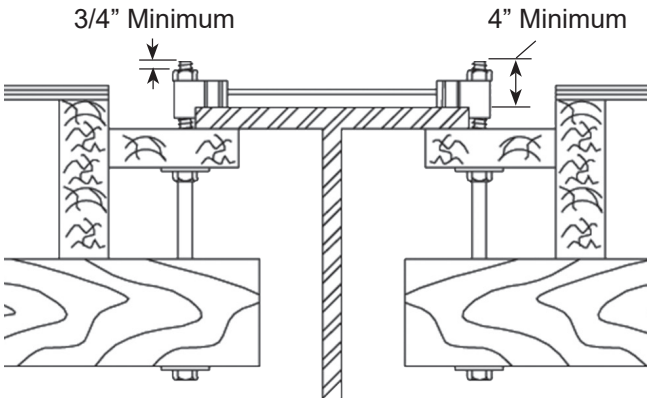
This hanger provides an advantage on certain concrete girders, allowing additional clearance below the formwork for ledgers. A batter washer is recommended for proper bearing and support.



Safe Working Load: 4,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 9 Interior Hanger

The Type 9 Press-Steel Interior Hanger is supports heavier forming loads using 3/4” coil rod. The hanger is fabricated using a 3/4” rod connecting two 90° end clips formed from 3/16” thick material. Heavy 3/4” Coil Nuts, measuring 1-1/8” across flat, are required for a safe working load of 11,300 lbs per side. Standard 3/4” Coil Nuts provide a safe working load of 8,000 lbs per side.

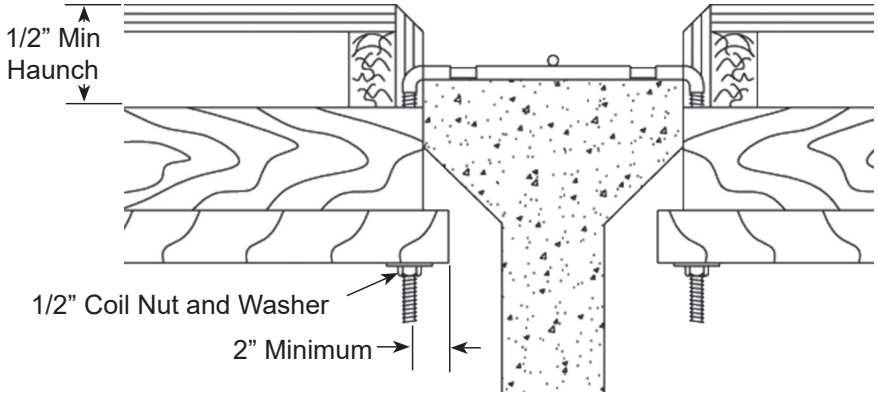


Safe Working Load: 11,300 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

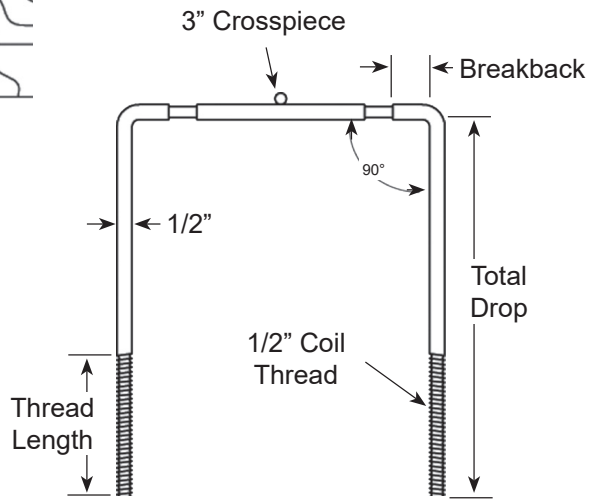
Type BDH-1 Broached Interior Hanger

The Type BDH-1 Broached Interior Hanger is a simple, yet strong, method of suspending formwork from bridge beams. For steel beams or girders, legs formed at 90° to the top flange. For concrete girders or box beams, legs formed at 15° to vertical are recommended.

A standard 1” breakback is part of the hanger. After the formwork is removed, the exposed leg is flexed back and forth until it breaks off.

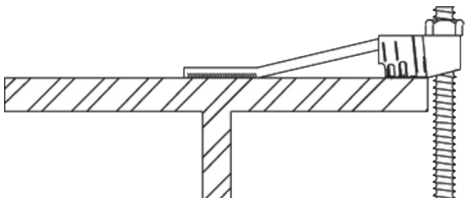


Safe Working Load: 4,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally



Type S Interior Half Hanger

All the Type S Interior Half Hangers (see table) are designed for steel beams. Each Type 1-S Interior Half Hanger is produced with a single 1⁄2" end clip welded to a formed wire strut that measures 6" from the center line of the bolt to the end of strut. The hanger is welded to the top of the beam when job conditions prevent the use of standard two-sided hangers.



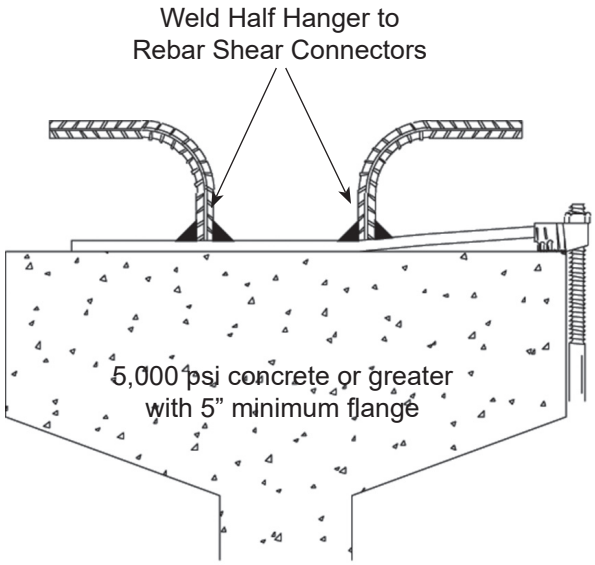
Steel Beam Application

Safe Working Load: varies by Type
Industry safety factor 2:1
Warning: Hanger must be welded properly

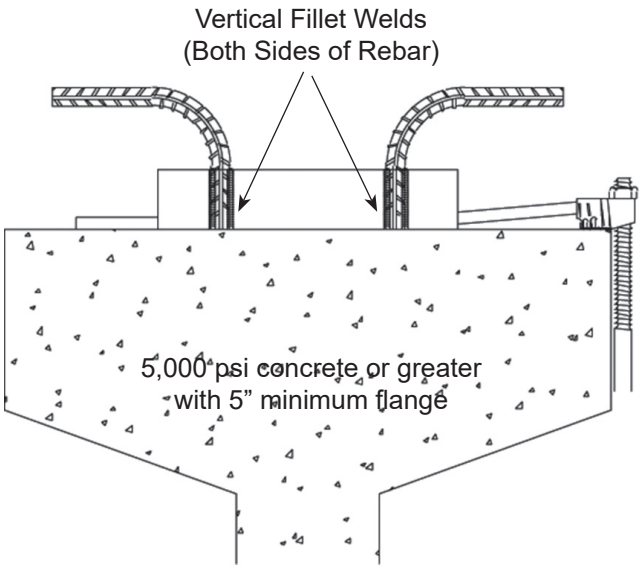
Type C Interior Half Hanger

All the Type C Interior Half Hangers (see table) are designed for concrete beams. Each Type C Interior Half Hanger is produced with a single 1⁄2" end clip welded to a formed wire strut that measures 9" from the center line of the bolt to the end of strut. The hanger is welded to the rebar shear connectors that extend from the top of the concrete beam when job conditions prevent the use of standard two-sided hangers.

Hanger capacity can be improved by welding a steel plate to the rebar shear connectors, then welding the hanger strut to the steel plate.

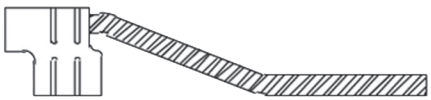
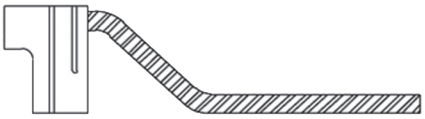
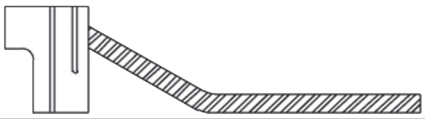


Precast Concrete Girder Application



Special Precast Concrete Girder Application

Safe Working Load: varies by Type
Industry safety factor 2:1
Warning: Hanger must be welded properly

Type	Drawing	Configuration	Length	Haunch	SWL*	Dimension
1-C		Jogged	9”	-	3,000 lbs	2”
1-S		Jogged	6”	-	3,000 lbs	2”
2-C		Jogged	9”	1”	2,375 lbs	3”
2-S		Jogged	6”	1”	2,375 lbs	3”
3-S		Jogged	6”	2-1/2”	2,000 lbs	4-1/2”
4-C		Straight	9”	-	6,000 lbs	2”
4-S		Straight	6”	-	6,000 lbs	2”
7-C		Jogged	9”	1-1/2”	2,375 lbs	3-1/2”
7-S		Jogged	6”	1-1/2”	2,375 lbs	3-1/2”
8-C		Jogged	9”	-	3,000 lbs	2-1/2”
8-S		Jogged	6”	-	3,000 lbs	2-1/2”

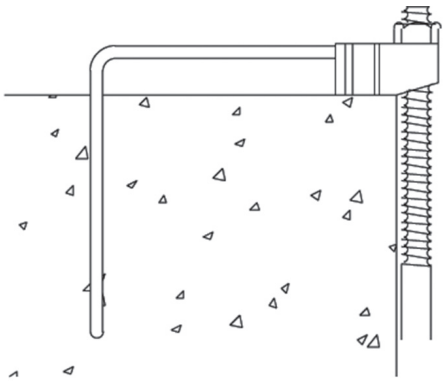
* *The Safe Working Load (SWL) for Type S hangers is based on a safety factor of 2:1. Inadequate or improper field welding will limit the SWL of the hanger.*

* *The Safe Working Load (SWL) for Type C hanger is based on a safety factor of 2:1. The SWL requires a minimum concrete flange thickness of 5” and compressive strength of 5,000 psi. Inadequate or improper field welding will limit the SWL of the hanger.*

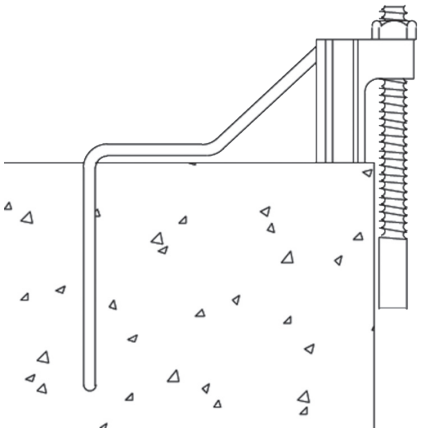
Precast Interior Half Hangers

The Precast Interior Half Hangers are installed at predetermined locations during the precast concrete beam production process. Half hangers must be installed so there is a 1/8” clearance between the edge of the beam and the 1/2” coil rod/bolt. Half hangers must be positioned so the end clip will bear on the top surface of the precast concrete beam.

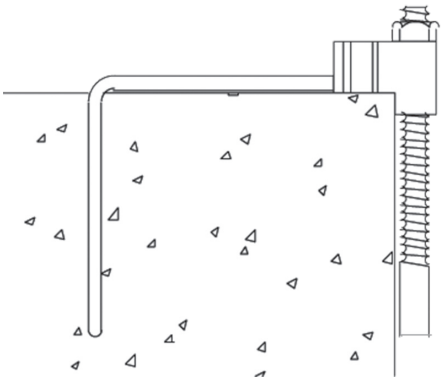
- Type 1-PR Precast Half Hanger – 90° end clip (when fillet is required)
- Type 2-PR Precast Half Hanger – 90° end clip with 1” haunch
- Type 3-PR Precast Half Hanger – 90° end clip with 2-1/2” haunch
- Type 4-PR Precast Half Hanger – 90° end clip (when fillet is required)
- Type 8-PR Precast Half Hanger – 15° end clip (for additional ledger clearance)



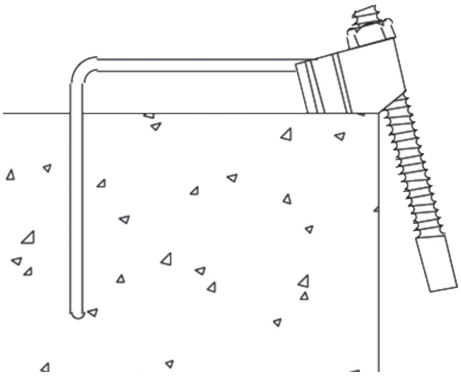
Type 1-PR Precast Half Hanger
3,000 lbs SWL



Type 3-PR Precast Half Hanger
2,375 lbs SWL



Type 4-PR Precast Half Hanger
6,000 lbs SWL

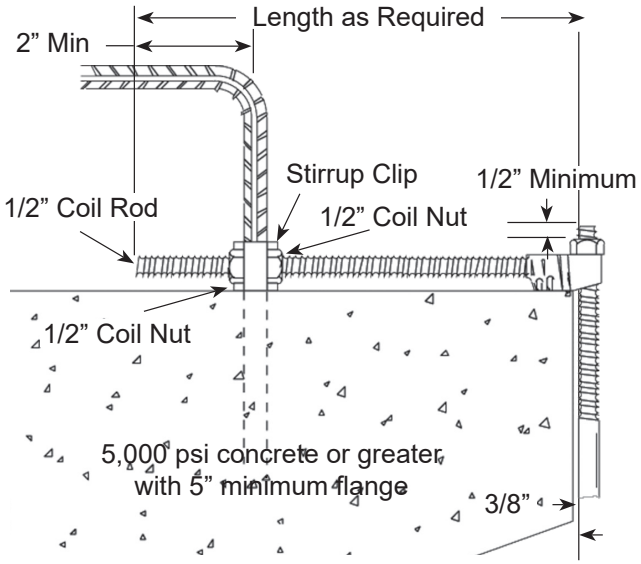


Type 8-PR Precast Half Hanger
3,000 lbs SWL

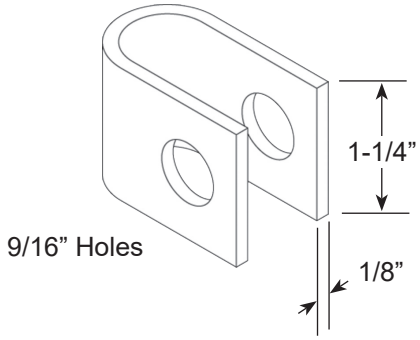
Adjustable Interior Half Hanger

These Adjustable Interior Half Hangers support interior deck formwork when one-sided forming is required and welding is not permitted by the Department of Transportation (DOT) specification. The Stirrup Clip is available for rebar sizes #3 through #8 or stud diameters 3⁄8”, 1⁄2”, 5/8”, 3⁄4”, 7/8” and 1-3⁄8“ as required. Half Hangers must be positioned so the end clip will bear on the top surface of the precast concrete beam.

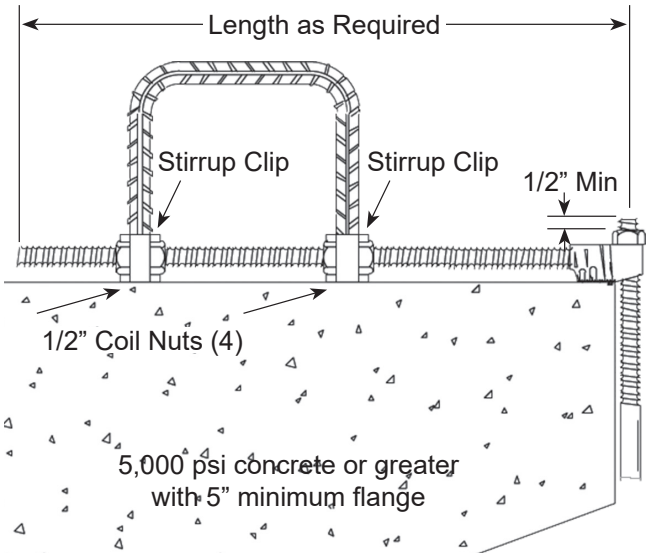
- Type 1 Adjustable Half Hanger – 90° end clip (when fillet is required)
- Type 2 Adjustable Half Hanger – 90° end clip with 1” haunch
- Type 8 Adjustable Half Hanger – 15° end clip (for additional ledger clearance)



Type 1 Adjustable Half Hanger with one Stirrup Clip



Stirrup Clip for Rebar or Stud



Type 1 Adjustable Half Hanger with two Stirrup Clips

Adjustable Interior Half Hanger				
Type	Safe Working Load*		Max Haunch	Min Length
	One Clip	Two Clips		
1	3,000 lbs	3,000 lbs	0	8”
2	2,000 lbs	2,375 lbs	1”	8”
8	2,000 lbs	3,000 lbs	0	8”

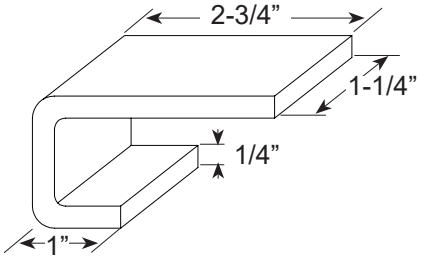
* *Safe Working Load (SWL) with 2:1 safety factor.*

* *Two 1/2” Coil Nuts must compress each Stirrup Clip to the rebar or stud.*

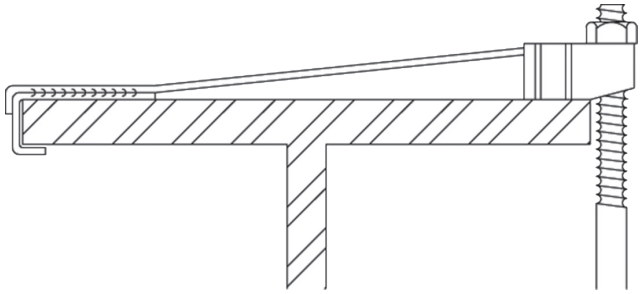
Interior Hook Half Hangers

The Interior Hook Half Hangers is designed to slip over the edge of a steel girder having a minimum 1/2” flange thickness. These hangers are typically used with stay-in-place metal decking or prestressed concrete.

- Type 1-B Hook Half Hanger – for fillet
- Type 2-B Hook Half Hanger – for haunch heights up to 1”
- Type 4-B Hook Half Hanger – heavy-duty version for fillet

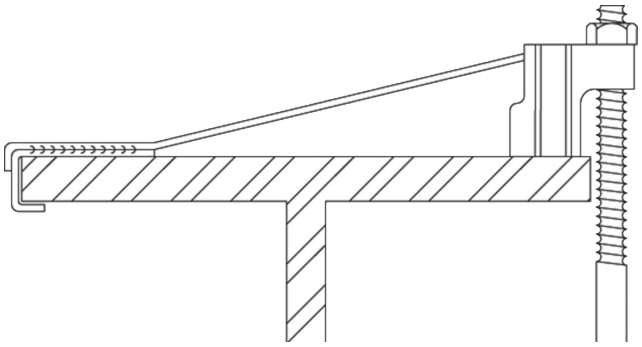


Hook Half Hanger
hook detail for steel girder



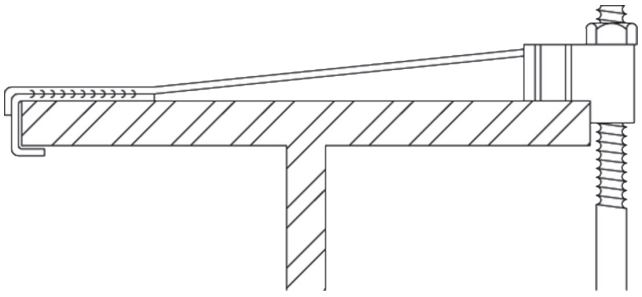
Type 1-B Hook Half Hanger
for fillet

Safe Working Load: 3,500 lbs per side
Industry safety factor 2:1
Warning: Hook end must capture flange



Type 2-B Hook Hanger
for haunch heights up to 1”

Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hook end must capture flange

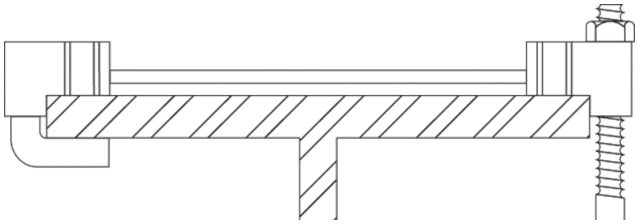


Type 4-B Hook Half Hanger
heavy-duty version for fillet

Safe Working Load: 5,000 lbs per side
Industry safety factor 2:1
Warning: Hook end must capture flange

Type 4-B Ty-Down Half Hanger

This is an excellent hanger for applications requiring a heavy duty interior half hanger. Normally supplied hot dipped galvanized after fabrication as a portion of the hanger will normally not be encased in the concrete deck leaving the exposed portion to rapidly corrode if not protected with a heavy zinc coating.

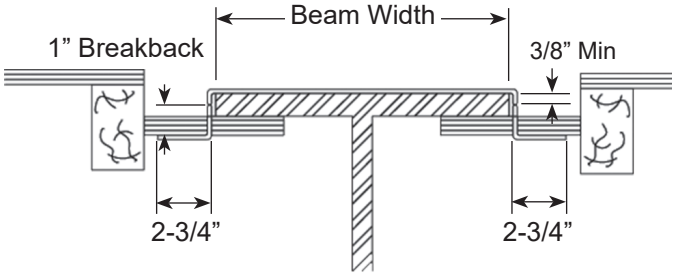


Safe Working Load: 6,000 lbs per side
Industry safety factor 2:1
Warning: Hook end must capture flange

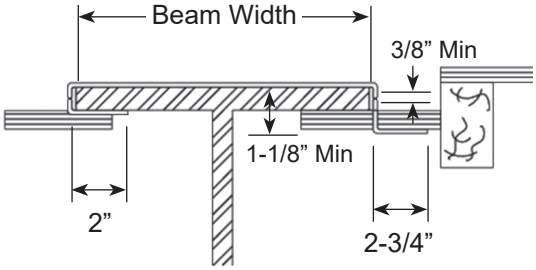
Fillet Hanger

A Fillet Hanger is used to support the lumber haunch and/or filler strips that simplify deck framing and stripping. The hanger is available for interior and exterior configurations and is designed with a standard 1” breakback.

Do not weld Fillet Hanger to beam. Do not stand on strips supported only by the Fillet Hanger.

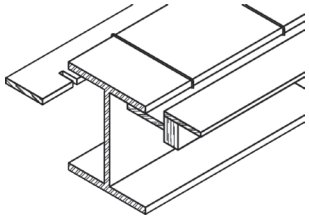


Fillet Hanger - Interior Type



Fillet Hanger - Exterior Type

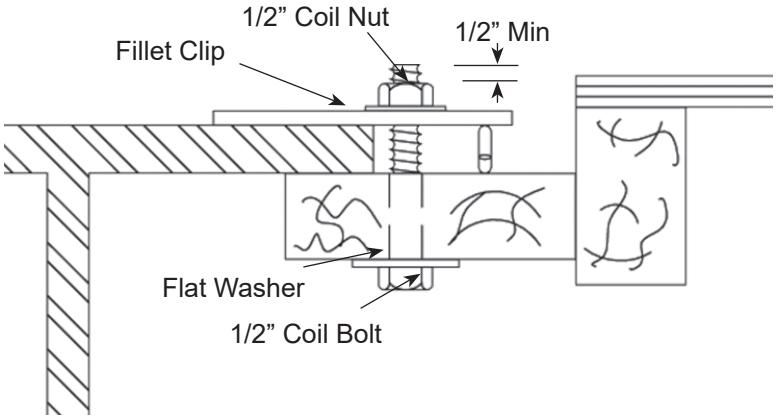
Safe Working Load: 100 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

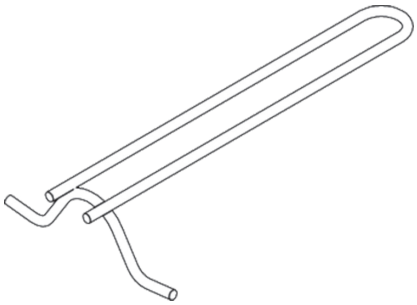


Fillet Clip

The Fillet Clip is used to support lumber haunch and/or filler strips by bolting through a 1⁄2” Coil Bolt (not included). The clip is available for flange thickness of 3⁄4” or greater with optional plastic feet.

Do not weld Fillet Clip to beam. Do not stand on strips supported only by the Fillet Clip.





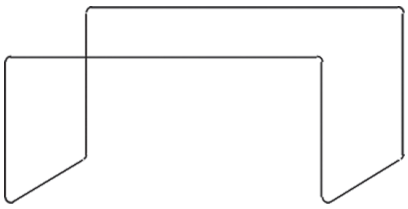
Fillet Clip

Safe Working Load: 350 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Saddle Hanger - Wire Type

The Saddle Hanger does not require any hardware or adjustment. The hangers are “saddled” over the beam 2’ on-center, the joists are placed over the wire and decked with plywood. Hangers are made with #4 gauge wire, for a beam flange greater than 2”, in drop dimensions to match the lumber joists.

Saddle Hangers are recommended for use with lumber joists only and extend a minimum of 2” beyond the hanger wire. Do not use adjustable horizontal shoring, steel beams or other metal joists.



Beam Saddle Hanger - Wire Type

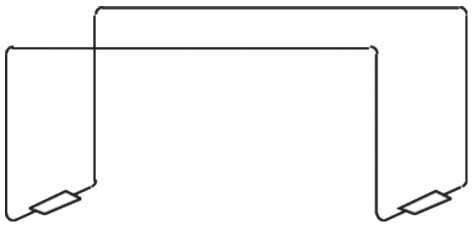
Safe Working Load: 1,200 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Saddle Hanger - Plate Type

The Saddle Hanger does not require any hardware or adjustment. The hangers are “saddled” over the beam 2’ on-center, the joists are placed into the wire hangers and decked with plywood. Hangers are made with #4 gauge wire, for a beam flange greater than 2”, in drop dimensions to match the lumber joists.

The addition of plates to the hanger wire increases the safe working load. The plate supports more of the lumber surface are without being deformed.

Saddle Hangers are recommended for use with lumber joists only and extend a minimum of 2” beyond hanger plate. Do not use adjustable horizontal shoring, steel beams or other metal joists.



Beam Saddle Hanger - Plate Type

Safe Working Load: 1,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Exterior Hangers

Exterior bridge deck hangers are typically fabricated using two steel end clips that have been welded to an appropriate sized wire or formed metal connecting strut. In most cases, the end clips used on exterior hangers locate two bolts, one at 90° to support the interior side and one at 45° to support the overhang side of the formwork. These hangers can be used on rolled structural steel beams, fabricated steel plate girders or precast/prestressed concrete girders.

Exterior hangers are placed at predetermined locations along the top of the outer bridge beams to support bridge deck formwork loads, including the live load, dead load, formwork load and usually on the overhang, a concrete conveyor and/or finishing machine load. Once the formwork has been completed and concrete is placed, the interior hangers support the weight of the freshly placed concrete. After the concrete reaches a specified strength, the hardware and formwork are removed.

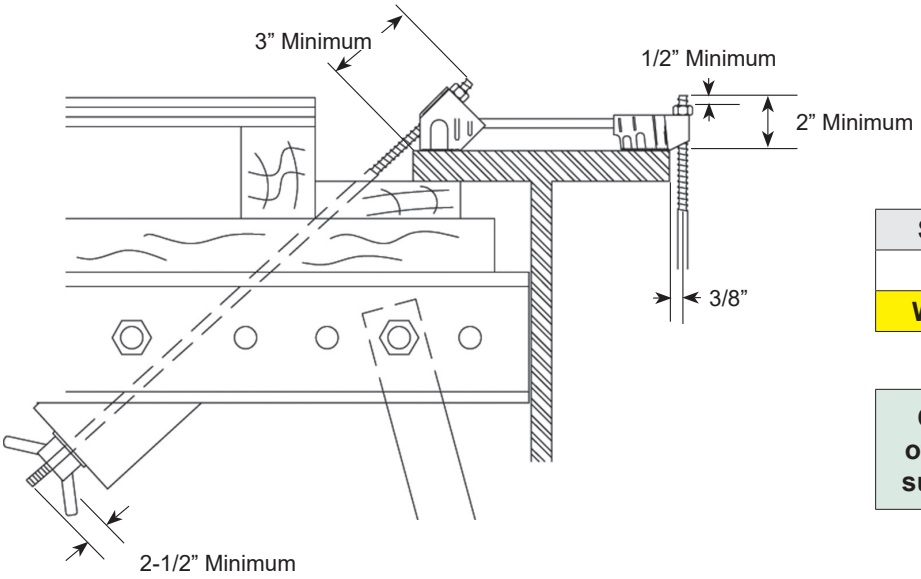
All exterior hangers are identified by the shape of the end section. Unless noted, all end sections are designed to accept a standard 1/2” diameter coil bolt/rod and nut. Since flanges will vary, it is essential to have the beam dimensions before ordering.

For safety reasons, a qualified person must accurately calculate the loads for the overhang bracket. Calculated loads must be equal to or less than the safe working load. Contact the SureBuilt Technical Service for assistance in determining the applied loads and exterior hanger spacing.

Product specifications subject to change without notice.

Type 1-A Exterior Hanger

The Type 1-A Exterior Hanger is used when there is a fillet on the interior side and an overhang on the exterior side of a steel beam The hanger is designed to allow 1/8” maximum clearance between the inside edge of the beam and the supporting 1/2” diameter coil bolt. Turning the coil nuts will raise/lower the deck formwork to grade. End clips accept 1/2” diameter coil rods and nuts.

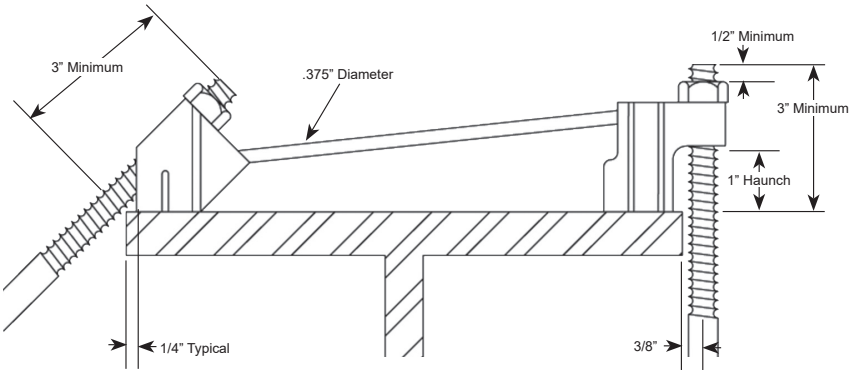


Safe Working Load: 3,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Only use this hanger when the weight of finishing and/or conveyor machine is supported directly on the exterior beam.

Type 2-A Exterior Hanger

The Type 2-A Exterior Hanger is similar in design to the Type 1-A hanger above, except it is designed to provide a 1” haunch relief on the interior side. End clips accept 1/2” diameter coil rods and nuts.

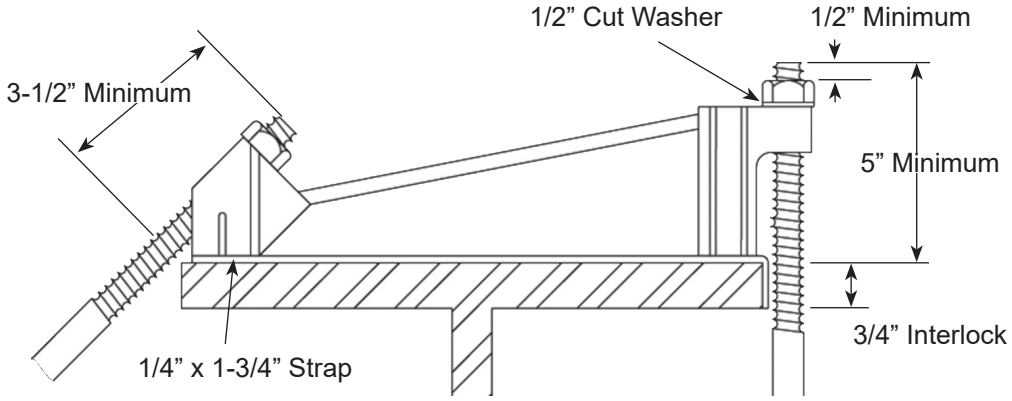


Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Only use this hanger when the weight of finishing and/or conveyor machine is supported directly on the exterior beam.

Type 3-A Exterior Hanger

The Type 3-A Exterior Hanger is used when a higher haunch is required on the interior side of the beam and a finishing machine and/or conveyor is supported on the overhang formwork. The Type 3-A is designed for haunch heights of up to 2-1/2". End clips accept 1/2" diameter coil rods and nuts.



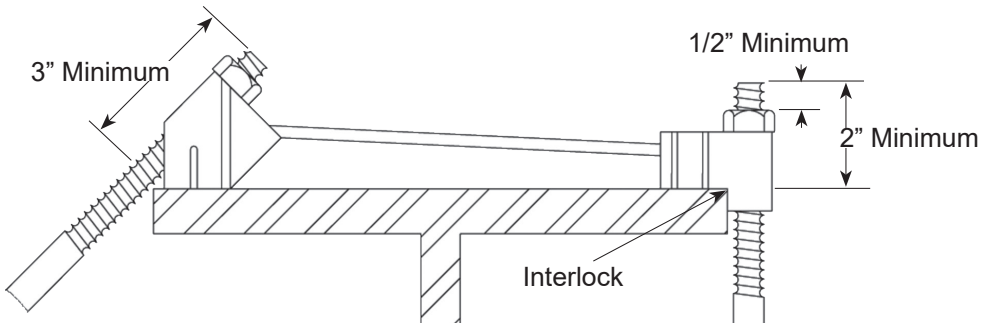
Safe Working Load: 3,500 lbs on 45⁰ side Safe Working Load: 2,800 lbs on 90⁰ side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Only use this hanger when the weight of finishing and/or conveyor machine is supported directly on the exterior beam.

Type 4-A (and 9-A) Exterior Hanger

The Type 4-A Exterior Hanger is fabricated with 90° and 45° end clips, both of which are welded to a 0.440" diameter wire strut. End clips accept 1/2" diameter coil rods and nuts.

Type 9-A Exterior Hanger is similar to the 4-A, except it is fabricated with heavier end clips which are welded to a 3/4" diameter wire strut. End clips accept 3/4" diameter coil rod and nuts. The Type 9-A is intended for use with a HD Bridge Overhang Bracket.

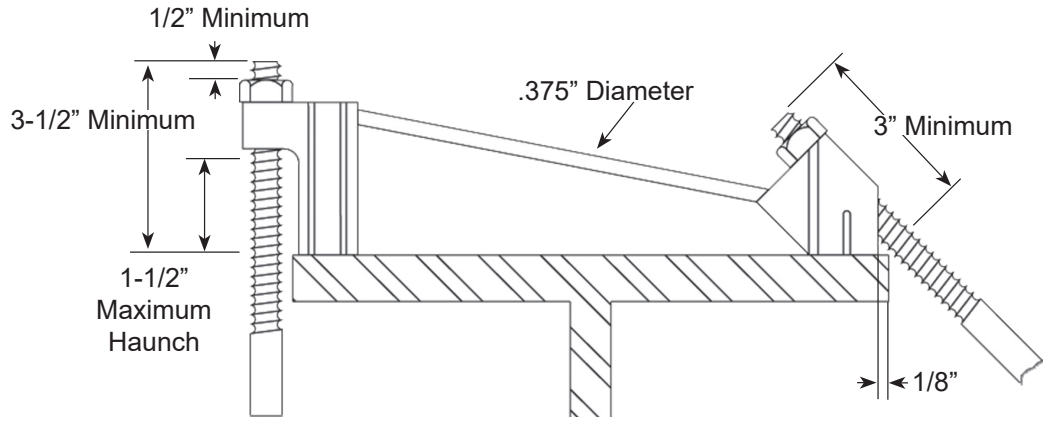


Safe Working Load: 6,000 lbs for 4-A Safe Working Load: 11,300 lbs for 9-A
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 9-A requires a 3/4" Heavy Hex Coil Nut or double 3/4" Coil Nuts and Cut Washer to develop the safe working load.

Type 7-A Exterior Hanger

The Type 7-A Exterior Hanger is used when there is a haunch height up to 1-1/2” on the interior side and an overhang on the exterior side of a steel beam. The hanger is designed to allow 1/8” maximum clearance between the inside edge of the beam and the supporting 1/2” diameter coil bolt. Turning the coil nuts will raise/lower the deck formwork to grade. End clips accept 1/2” diameter coil rods and nuts.

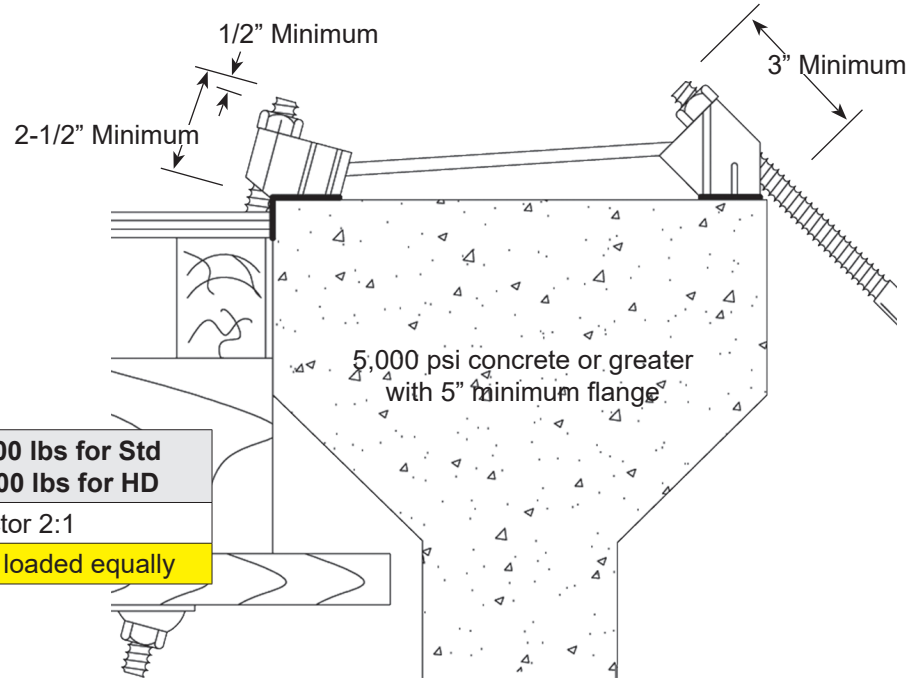


Safe Working Load: 2,375 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Only use this hanger when the weight of finishing and/or conveyor machine is supported directly on the exterior beam.

Type 8-A Exterior Hanger

The Type 8-A Exterior Hanger for precast concrete beams consists of 15° end clip to support the interior formwork and a 45° end clip to support the overhang bracket and exterior formwork. End clips accept 1/2” diameter coil rods and nuts. A battered washer is recommended for use beneath the interior formwork ledgers to allow for proper bearing of the coil bolt.



Safe Working Load: 4,500 lbs for Std Safe Working Load: 6,000 lbs for HD
Industry safety factor 2:1
Warning: Hanger must be loaded equally

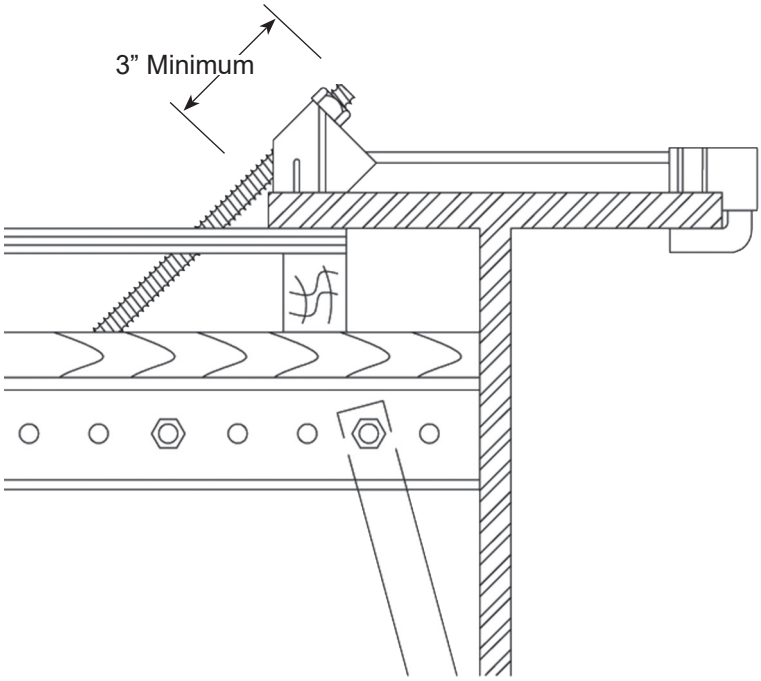
Type 4-AB (and 9-AB) Exterior Half Hanger

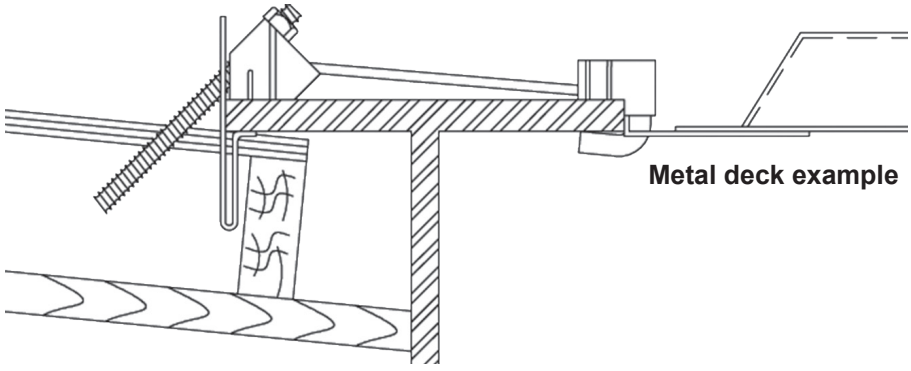
The Type 4-AB Half Hanger is used to support overhang formwork when stay-in-place metal decking is used on the interior bays. The Half Hanger consists of 90° end clip with a J-shape to hook onto the beam flange and a 45° end clip to support the overhang bracket formwork. End clips accept 1/2” diameter coil rods and nuts.

The Type 9-AB Half Hanger has a larger diameter strut and end clips designed for 3/4” diameter coil rod, giving it greater capacity for use with a Heavy Duty Bridge Overhang Bracket.

Safe Working Load: 6,000 lbs for 4-AB **Safe Working Load: 11,300 lbs for 9-AB**
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 9-AB requires a 3/4” Heavy Hex Coil Nut or double 3/4” Coil Nuts and Cut Washer to develop the safe working load.





Metal deck example

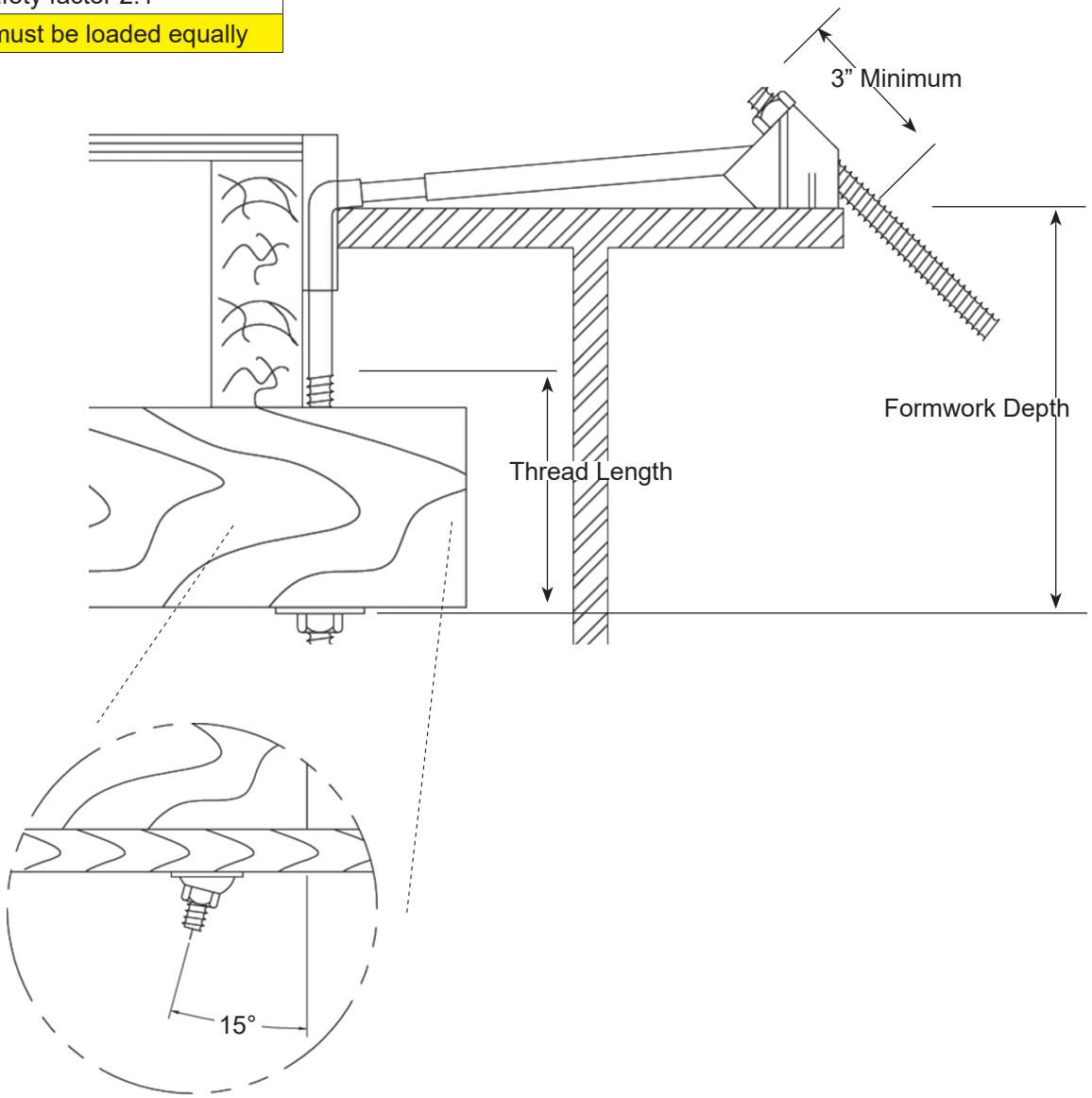
Type BDH-3 Broached Exterior Hanger

The Type BDH-3 Broached Exterior Hanger has a 90° bend with a threaded end to support the interior formwork and a 45° end clip to support the overhang bracket formwork. The interior side is a user specified length with 1/2” threads. The exterior side end clip accepts 1/2” diameter coil rod and nuts.

For precast concrete beams, the interior leg is formed at 15° to support the formwork. A battered washer is recommended for use beneath the interior formwork ledgers to allow for proper bearing.

The Type BDH-3 Broached Exterior Hanger is designed with a 1“ breakback. After the bridge deck has been placed and interior formwork stripped, a pipe is placed over the threaded end to break off the hanger.

Safe Working Load: 4,500 lbs per side
Industry safety factor 2:1
Warning: Hanger must be loaded equally

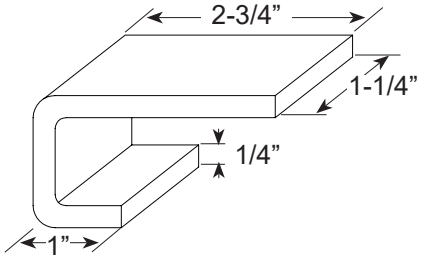


Batter recommended for Precast Concrete Beams

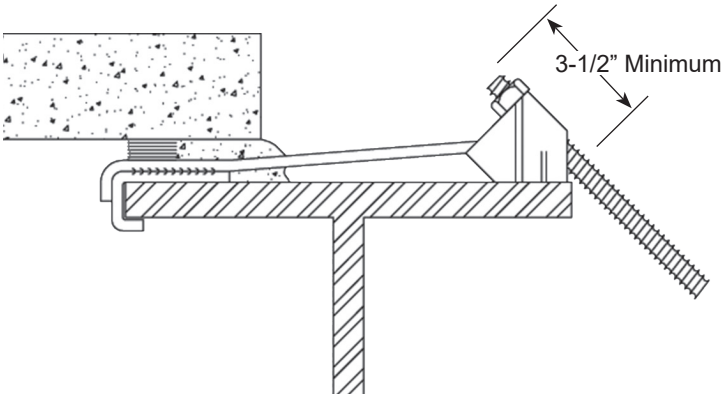
Type 4-AB Exterior Hook Hanger

The Type 4-AB Exterior Hook Hanger is used when field welding to the steel beam is prohibited. The hanger "hooks" over the interior side and a 45° end clip supports the overhang bracket formwork. The end clip accepts 1/2" diameter coil rod and nuts.

Safe Working Load: 5,000 lbs
Industry safety factor 2:1
Warning: Hook must capture flange



Hook Half Hanger
hook detail for steel girder



Type 4-A, 4-AN (and 9-AN) Exterior Half Hanger

The Type 4-A and 4-AN Exterior Half Hanger is designed for bridge rehabilitation and bridge widening projects where only exterior formwork support is required. The safe working load of the these hangers is dependent on the strength of the stud-to-flange weld.

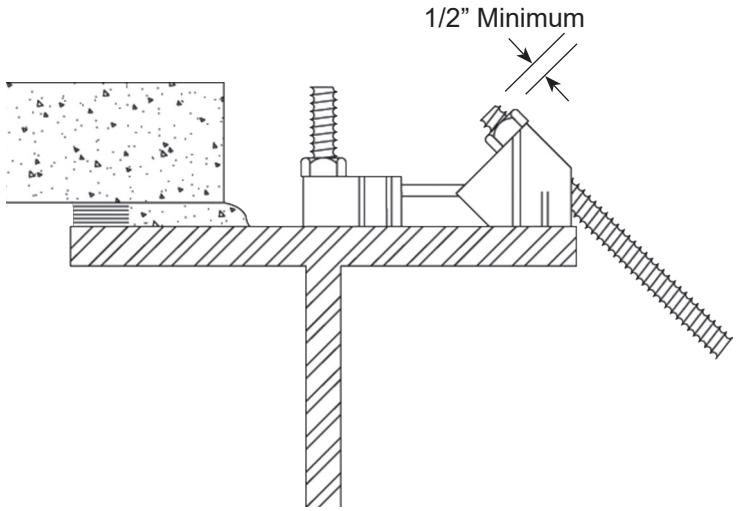
This half hanger can also be used on precast concrete beams with 5" minimum flange thickness on Type 4-A and 4-AN half hangers and 6" on Type 9-AN half hanger.

The Type 9-AN Half Hanger has a larger diameter strut and end clip designed for 3/4" diameter coil rod, giving it greater capacity for use with a Heavy Duty Bridge Overhang Bracket.

Safe Working Load: 6,000 lbs for 4-A Safe Working Load: 6,000 lbs for 4-AN Safe Working Load: 11,300 lbs for 9-AN
Industry safety factor 2:1
Warning: Hanger must be bolted to stud

The safe working load is based on a properly welded 3/4" diameter stud with a minimum tensile strength of 55,000 psi.

Type 9-AN requires a 3/4" Heavy Hex Coil Nut or double 3/4" Coil Nuts and Cut Washer to develop the safe working load.

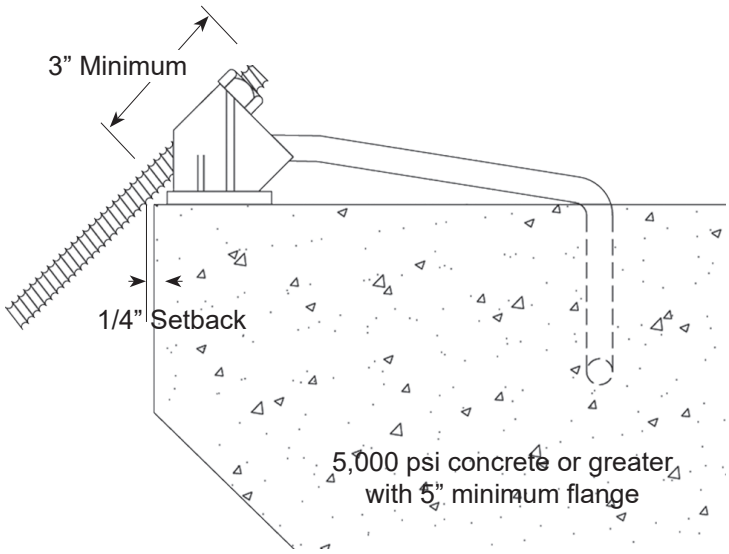


Type 4-APR (and 9-APR) Precast Exterior Half Hangers

The Type 4-APR Precast Exterior Half Hangers are cast into the top a precast/prestressed concrete beam. At the bridge site, these hangers are used to support the bridge overhang bracket, formwork, live load, dead load and conveyor/finishing machine.

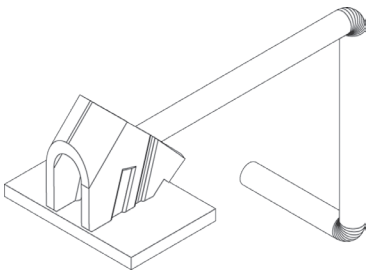
The bridge contractor must provide the precaster with the hanger spacing for each precast concrete beam. The hangers must be installed with a 1/4” setback and the strut wire embedded in the fresh concrete. The bearing plate must rest solidly on the top surface of the concrete.

The Type 9-APR Half Hanger has a larger diameter strut and end clip designed for 3/4” diameter coil rod, giving it greater capacity for use with a Heavy Duty Bridge Overhang Bracket.



Safe Working Load: 6,000 lbs for 4-APRP **Safe Working Load: 11,300 lbs for 9-APRP**
Industry safety factor 2:1
Warning: Hanger must be loaded equally

Type 9-APRP requires a 3/4” Heavy Hex Coil Nut or double 3/4” Coil Nuts and Cut Washer to develop the safe working load.



Type 4-APR Half Hanger for 1/2” diameter coil rod

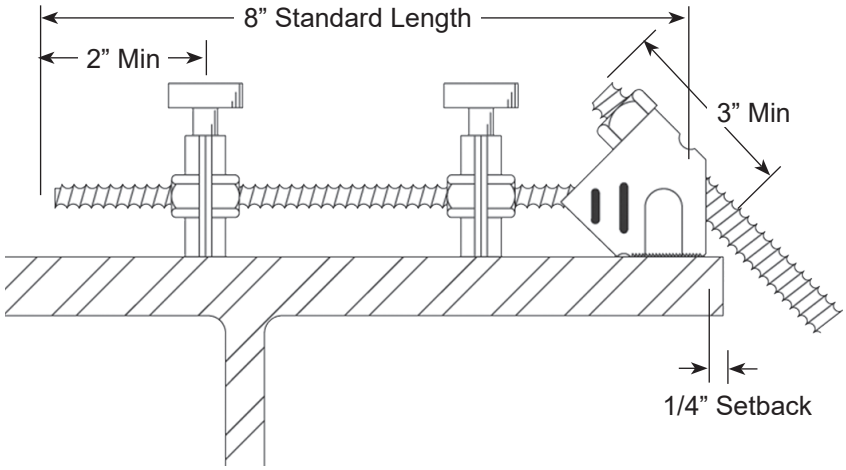
Adjustable Exterior Half Hanger

The Adjustable Exterior Half Hanger consists of a 45° end clip welded to an 8” length of 1/2” diameter coil rod, with two stirrup clips and four 1/2” coil nuts. These Half Hangers are used to support overhang brackets and exterior formwork when welding is not permitted by the Department of Transportation (DOT).

The Stirrup Clip is available for rebar sizes #3 through #8 or stud diameters 3⁄8”, 1⁄2”, 5/8”, 3⁄4”, 7/8” and 1-3⁄8“ as required. The end clip accepts 1/2” diameter coil rod and nuts.

Safe Working Load: 1,100 lbs w/1 Clip **Safe Working Load: 3,000 lbs w/2 Clips**
Industry safety factor 2:1
Warning: Hanger must be bolted to rebar

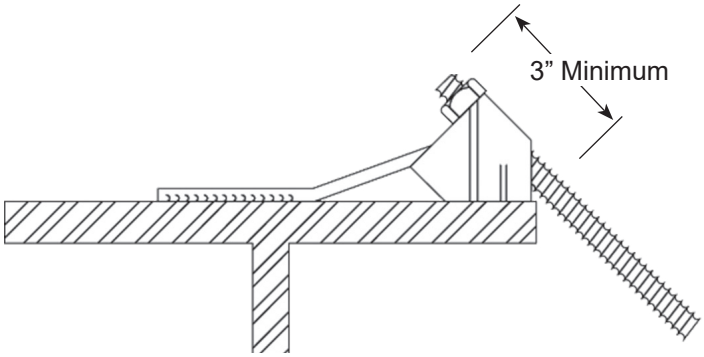
Two 1/2” Coil Nuts must compress each Stirrup Clip to the rebar stirrup or studs.



Type S Exterior Half Hanger

All the Type S Exterior Half Hangers (see table on following page) are designed for steel beams. Each Type S Half Hanger is produced with a single end clip welded to a formed wire strut that measures 6” from the center line of the bolt to the end of the strut. Type S hangers are welded to the top of the beam when job conditions prevent the use of standard exterior hangers.

Safe Working Load: varies by Type
Industry safety factor 2:1
Warning: Hanger must be welded properly

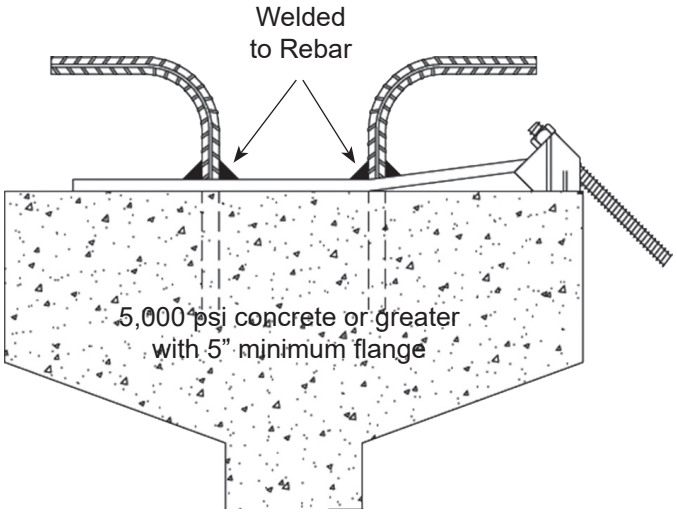


Typical Steel Beam Application

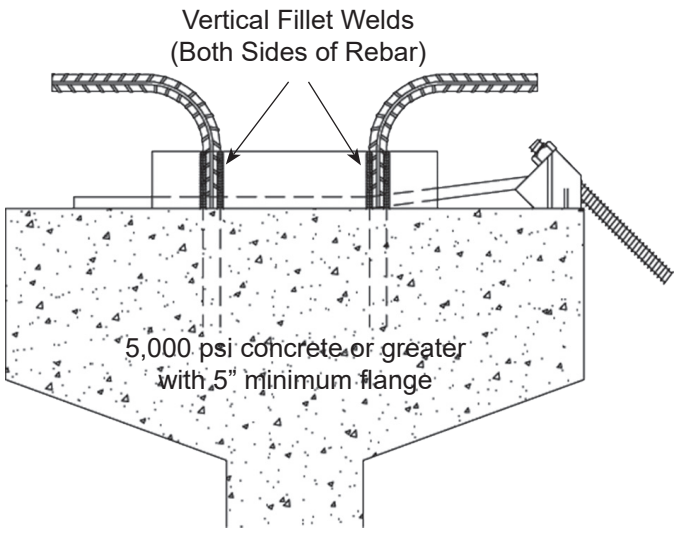
Type C Exterior Half Hanger

All Type C Exterior Half Hangers (see table on following page) are designed for precast concrete beams. Each Type S Half Hanger is produced with a single end clip welded to a formed wire strut that measures 9” from the center line of the bolt to the end of the strut. Type S Half Hangers are welded to the rebar shear connectors at the top of the beam when job conditions prevent the use of standard exterior hangers.

Hanger capacity can be improved by welding a steel plate to the rebar shear connectors, using four vertical fillet welds, then welding the hanger strut wire to the steel plate.



Typical Precast Concrete Girder Application



Special Precast Concrete Girder Application

Safe Working Load: varies by Type
Industry safety factor 2:1
Warning: Hanger must be welded properly

Type	Drawing	Shape	Length	SWL*
1-AC		Jogged	12”	3,500 lbs
1-AS			6”	3,500 lbs
4-AC			12”	6,000 lbs
4-AS			6”	6,000 lbs

* *The Safe Working Load (SWL) for Type S hangers is based on a safety factor of 2:1. Inadequate or improper field welding will limit the SWL of the hanger.*

* *The Safe Working Load (SWL) for Type C hanger is based on a safety factor of 2:1. The SWL requires a minimum concrete flange thickness of 5” and compressive strength of 5,000 psi. Inadequate or improper field welding will limit the SWL of the hanger.*

Bridge Overhang Brackets

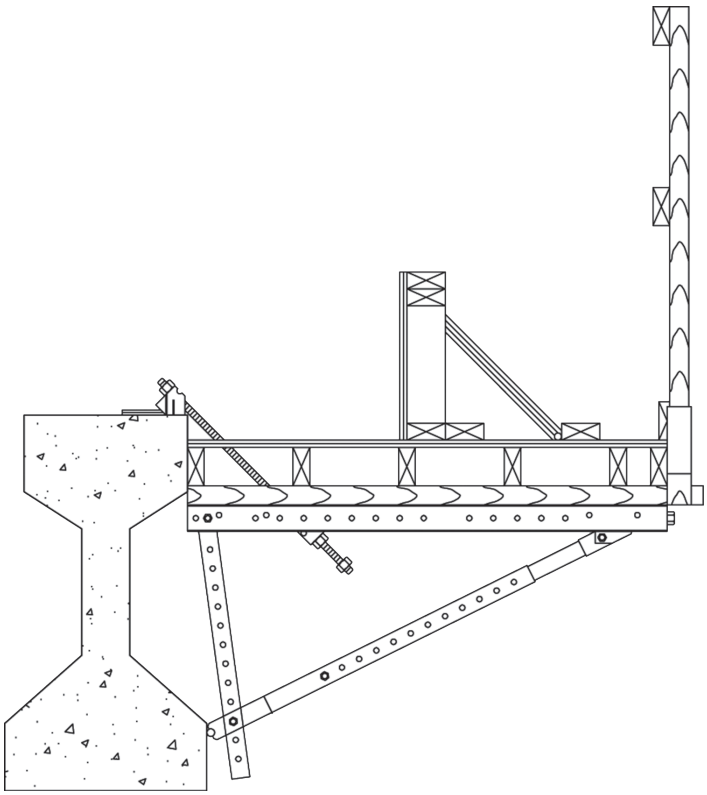
There are four different versions of the Bridge Overhang Bracket, providing the size and adjustment needed the varied bridge overhang forming requirements on both structural steel and precast concrete beams.

The Standard version is designed for most common bridge beam conditions, with a 54” top channel and telescoping 30” to 50” adjustable vertical strut.

The Deep version is designed for deeper bridge beams, with a 54” top channel and telescoping 50” to 70” adjustable vertical strut.

The Modified version is designed for shorter bridge beams, with a 54” top channel and single 16” to 28” adjustable vertical strut.

The Junior version is designed for limited space conditions, with a 27” top channel and single 16” to 28” adjustable vertical strut.



Typical Bridge Overhang Section

Product specifications subject to change without notice.

Bridge Overhang Bracket

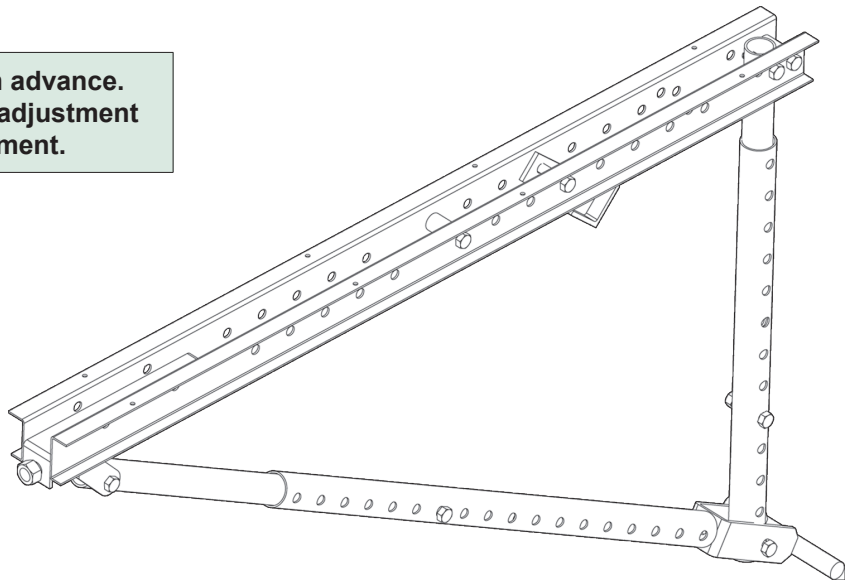
The Bridge Overhang Bracket adjusts to fit both structural steel and precast concrete beams. The size and shape of a bracket is adjusted by changing the vertical and diagonal legs to meet the specific overhang requirements. Brackets can be preset on the ground, then moved into position, to speed forming operations.

Both the vertical and diagonal legs have adjustment holes spaced at 2” increments, allowing the legs to be adjusted so the diagonal leg will transfer the load from the end of the bracket to the bottom flange of the beam. An adjusting nut at the outboard end of the bracket is used to adjust the bracket to final grade.

A coil bolt attached to the exterior hanger passes through a Bolt Holder located along the bottom of the horizontal channel. The Bolt Holder must be relocated for each project so the coil bolt is at a 45° angle to the top flange of the beam and bearing against the bottom side of the channel to support the bracket load.

An Extension channel for wider overhangs, Guard Rail Pocket for 2x4 lumber uprights, and Wall Plate for wall mounting, are options adding to the versatility of the Bridge Overhang Bracket.

**Adjust brackets to grade in advance.
Do not attempt any upward adjustment during concrete placement.**

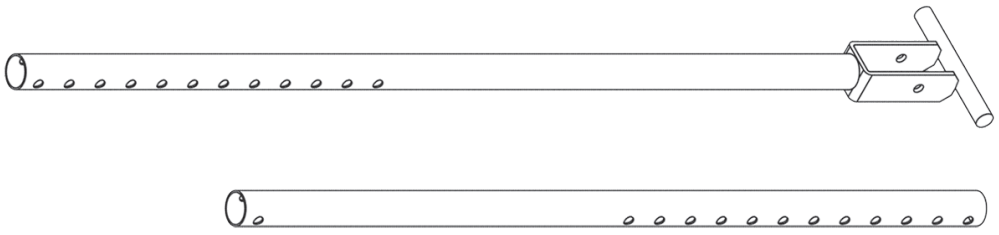


Bridge Overhang Brackets					
Part No.	**Description**	**Channel Length**	**Vertical* Adjustment**	**Coil Rod Diameter**	**SWL** (lbs)**
SBBOB	Bridge Overhang Bracket	54”	30” to 50”	1/2”	3,750
SBBOBD	Bridge Overhang Bracket - Deep	54”	50” to 70”	1/2”	3,750
SBBOBM	Bridge Overhang Bracket - Modified	54”	16” to 28”	1/2”	3,750
SBBOBJ	Bridge Overhang Bracket - Junior	27”	16” to 28”	1/2”	3,750

** Vertical adjustment in 2” increments.*
*** Safe Working Load (SWL) based on 2:1 safety factor of axial load in diagonal leg.*

Conversion Kit

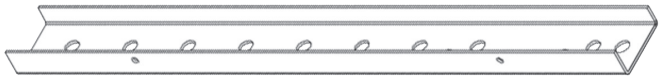
The standard Bridge Overhang Bracket is quickly converted to a Deep version by replacing the telescoping vertical and diagonal legs with the Conversion Kit. This substitution changes the adjustment range from 30/50 to 50/70.



Conversion Kit

Extension Channel

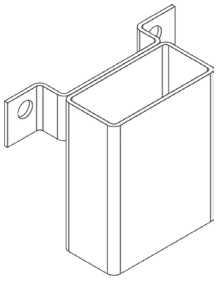
The Extension Channel attaches to one side of the Bridge Overhang Bracket to extend the usable working length. The Extension Channel is only used to support a walkway so the entire length of the Bridge Overhang Bracket can be used for formwork support.



Extension Channel

Guard Rail Bracket

The Guard Rail Bracket bolts to either the Bridge Overhang Bracket or the Extensions Channel. This provides a secure location for a lumber 2x4 post for the guard rails along the edge of bridge formwork.

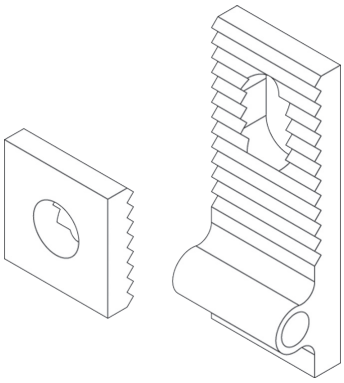


Guard Rail Bracket

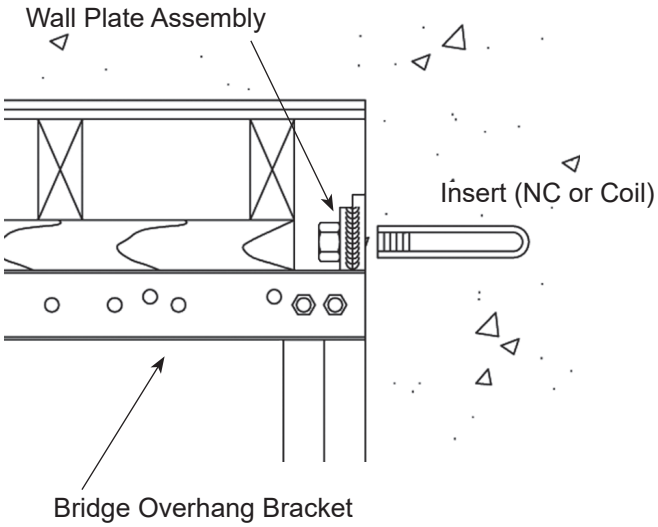
Wall Plate Assembly

The Wall Plate Assembly is an adjustable attachment plate that is fastened to a 3/4” insert (Coil or NC type) that has been cast into a concrete wall or precast bridge beam. The Bridge Overhang Bracket is then bolted through the sleeve of the Wall Plate Assembly to support the formwork.

The serrated face of the plate and washer provides the height adjustment when fastening the Wall Plate Assembly to the 3/4” insert. Unbolting the Bridge Overhang Bracket from the Wall Plate Assembly, then removing the Wall Plate Assembly, simplifies stripping and removal.



Wall Plate Assembly includes plate and washer.

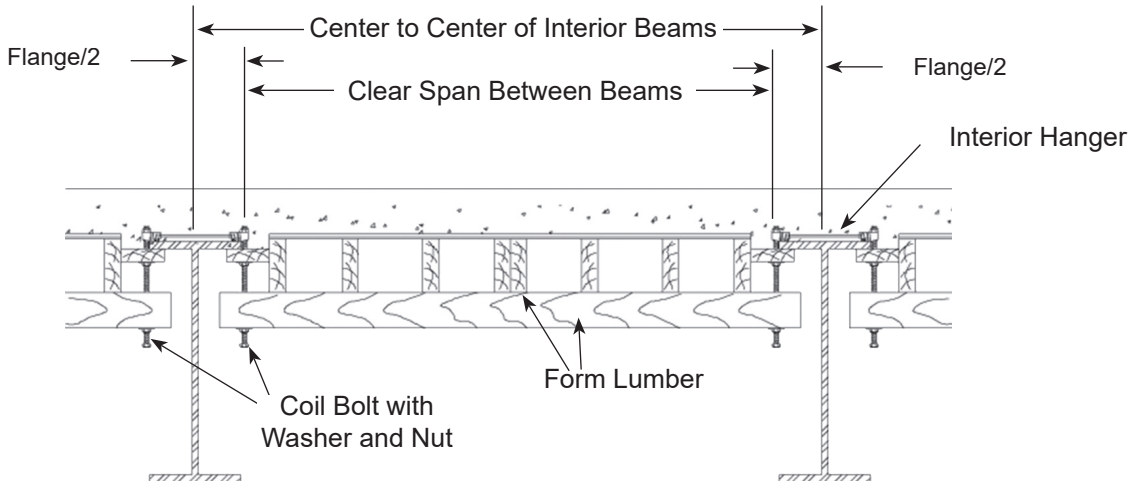


Bridge Overhang Bracket Accessories		
Part No.	**Description**	**Application**
SBBOBCK	BOB Conversion Kit	*(Optional legs for “Deep” bracket configuration)*
SBBOBEX	BOB Extension Channel	*(Extends horizontal length to 71”)*
SBGRB24	BOB Guard Rail Bracket 2x4	*(Receptacle for 2x4 lumber post)*
SBBOBWPA	BOB Wall Plate Assembly	*(Mounting plate for concrete wall or box beam)*

Interior Hanger Spacing Tables

The following charts list the maximum safe interior hanger spacing. When the clear span is not an even foot, the next larger clear span from the chart should be used. The charts are based on the following formula:

$$\text{Maximum Hanger Spacing (Limited at 8'-0" Maximum Centers)} = \frac{\text{SWL per Side of Hanger}}{\text{Design Load (PSF) x Clear Span (Feet)/2}}$$



Product specifications subject to change without notice.

Interior Hanger Spacing - SWL 2,375 lbs per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	7’-3”	6’-0”	5’-0”	4’-6”	4’-0”	3’-6”	3’-3”	3’-0”
156.7	8”	8’-0”	7’-6”	6’-0”	5’-0”	4’-3”	3’-9”	3’-3”	3’-0”	2’-9”	2’-6”
183.3	10”	8’-0”	6’-3”	5’-0”	4’-3”	3’-6”	3’-0”	2’-9”	2’-6”	2’-3”	2’-0”
210.0	12”	7’-6”	5’-6”	4’-6”	3’-9”	3’-0”	2’-9”	2’-6”	2’-3”	2’-0”	1’-9”
236.7	14”	6’-6”	5’-0”	4’-0”	3’-3”	2’-9”	2’-6”	2’-0”	2’-0”	1’-9”	1’-6”
263.3	16”	6’-0”	4’-6”	3’-6”	3’-0”	2’-6”	2’-3”	2’-0”	1’-9”	1’-6”	1’-6”
290.0	18”	5’-3”	4’-0”	3’-3”	2’-6”	2’-3”	2’-0”	1’-9”	1’-6”	1’-3”	1’-3”
316.7	20”	4’-9”	3’-6”	2’-9”	2’-3”	2’-0”	1’-9”	1’-6”	1’-3”	1’-3”	1’-0”

Interior Hanger Spacing - SWL 2,500 lbs per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	7’-6”	6’-3”	5’-3”	4’-9”	4’-3”	3’-9”	3’-3”	3’-0”
156.7	8”	8’-0”	7’-9”	6’-3”	5’-3”	4’-6”	3’-9”	3’-6”	3’-0”	2’-9”	2’-6”
183.3	10”	8’-0”	6’-9”	5’-3”	4’-6”	3’-9”	3’-3”	3’-0”	2’-6”	2’-3”	2’-3”
210.0	12”	7’-9”	5’-9”	4’-9”	3’-9”	3’-3”	2’-9”	2’-6”	2’-3”	2’-0”	1’-9”
236.7	14”	7’-0”	5’-3”	4’-0”	3’-6”	3’-0”	2’-6”	2’-3”	2’-0”	1’-9”	1’-9”
263.3	16”	6’-3”	4’-6”	3’-9”	3’-0”	2’-6”	2’-3”	2’-0”	1’-9”	1’-6”	1’-6”
290.0	18”	5’-6”	4’-3”	3’-3”	2’-9”	2’-3”	2’-0”	1’-9”	1’-6”	1’-6”	1’-3”
316.7	20”	5’-3”	3’-9”	3’-0”	2’-6”	2’-3”	1’-9”	1’-9”	1’-6”	1’-3”	1’-3”

Interior Hanger Spacing - SWL 3,000 lbs per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	7’-6”	6’-6”	5’-9”	5’-0”	4’-6”	4’-0”	3’-9”
156.7	8”	8’-0”	8’-0”	7’-6”	6’-3”	5’-3”	4’-9”	4’-3”	3’-9”	3’-3”	3’-0”
183.3	10”	8’-0”	8’-0”	6’-6”	5’-3”	4’-6”	4’-0”	3’-6”	3’-3”	2’-9”	2’-6”
210.0	12”	8’-0”	7’-0”	5’-6”	4’-9”	4’-0”	3’-6”	3’-0”	2’-9”	2’-6”	2’-3”
236.7	14”	8’-0”	6’-3”	5’-0”	4’-0”	3’-6”	3’-0”	2’-9”	2’-6”	2’-3”	2’-0”
263.3	16”	7’-6”	5’-6”	4’-6”	3’-9”	3’-3”	2’-9”	2’-6”	2’-3”	2’-0”	1’-9”
290.0	18”	6’-9”	5’-0”	4’-0”	3’-3”	2’-9”	2’-6”	2’-3”	2’-0”	1’-9”	1’-6”
316.7	20”	6’-3”	4’-6”	3’-9”	3’-0”	2’-6”	2’-3”	2’-0”	1’-9”	1’-6”	1’-6”

Interior Hanger Spacing - SWL 3,500 lbs per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-6”	5’-9”	5’-3”	4’-9”	4’-3”
156.7	8”	8’-0”	8’-0”	8’-0”	7’-3”	6’-3”	5’-6”	4’-9”	4’-3”	4’-0”	3’-6”
183.3	10”	8’-0”	8’-0”	7’-6”	6’-3”	5’-3”	4’-9”	4’-0”	3’-9”	3’-3”	3’-0”
210.0	12”	8’-0”	8’-0”	6’-6”	5’-6”	4’-9”	4’-0”	3’-6”	3’-3”	3’-0”	2’-9”
236.7	14”	8’-0”	7’-3”	5’-9”	4’-9”	4’-0”	3’-6”	3’-3”	2’-9”	2’-6”	2’-3”
263.3	16”	8’-0”	6’-6”	5’-3”	4’-3”	3’-9”	3’-3”	2’-9”	2’-6”	2’-3”	2’-0”
290.0	18”	8’-0”	6’-0”	4’-9”	4’-0”	3’-3”	3’-0”	2’-6”	2’-3”	2’-0”	2’-0”
316.7	20”	7’-3”	5’-6”	4’-3”	3’-6”	3’-0”	2’-9”	2’-3”	2’-0”	2’-0”	1’-9”

Interior Hanger Spacing - SWL 4,500 lbs per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-9”	6’-3”	5’-9”
156.7	8”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-0”	6’-3”	5’-6”	5’-0”	4’-9”
183.3	10”	8’-0”	8’-0”	8’-0”	8’-0”	7’-0”	6’-0”	5’-3”	4’-9”	4’-3”	4’-0”
210.0	12”	8’-0”	8’-0”	8’-0”	7’-0”	6’-0”	5’-3”	4’-9”	4’-3”	3’-9”	3’-6”
236.7	14”	8’-0”	8’-0”	7’-6”	6’-3”	5’-3”	4’-9”	4’-0”	3’-9”	3’-3”	3’-0”
263.3	16”	8’-0”	8’-0”	6’-9”	5’-6”	4’-9”	4’-3”	3’-9”	3’-3”	3’-0”	2’-9”
290.0	18”	8’-0”	7’-9”	6’-0”	5’-0”	4’-3”	3’-9”	3’-3”	3’-0”	2’-9”	2’-6”
316.7	20”	8’-0”	7’-0”	5’-6”	4’-6”	4’-0”	3’-6”	3’-0”	2’-9”	2’-6”	2’-3”

Interior Hanger Spacing - SWL 6,000 lb per Side										
Design Load PSF	Slab	Clear Span Between Beams								
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”
156.7	8”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-9”	6’-3”
183.3	10”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-3”	6’-6”	5’-9”	5’-3”
210.0	12”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-0”	6’-3”	5’-6”	5’-0”	4’-9”
236.7	14”	8’-0”	8’-0”	8’-0”	8’-0”	7’-0”	6’-3”	5’-6”	5’-0”	4’-4”	4’-0”
263.3	16”	8’-0”	8’-0”	8’-0”	7’-6”	6’-6”	5’-6”	5’-0”	4’-6”	4’-0”	3’-9”
290.0	18”	8’-0”	8’-0”	8’-0”	6’-9”	5’-9”	5’-0”	4’-6”	4’-0”	3’-9”	3’-3”
316.7	20”	8’-0”	8’-0”	7’-6”	6’-3”	5’-3”	4’-6”	4’-0”	3’-9”	3’-3”	3’-0”

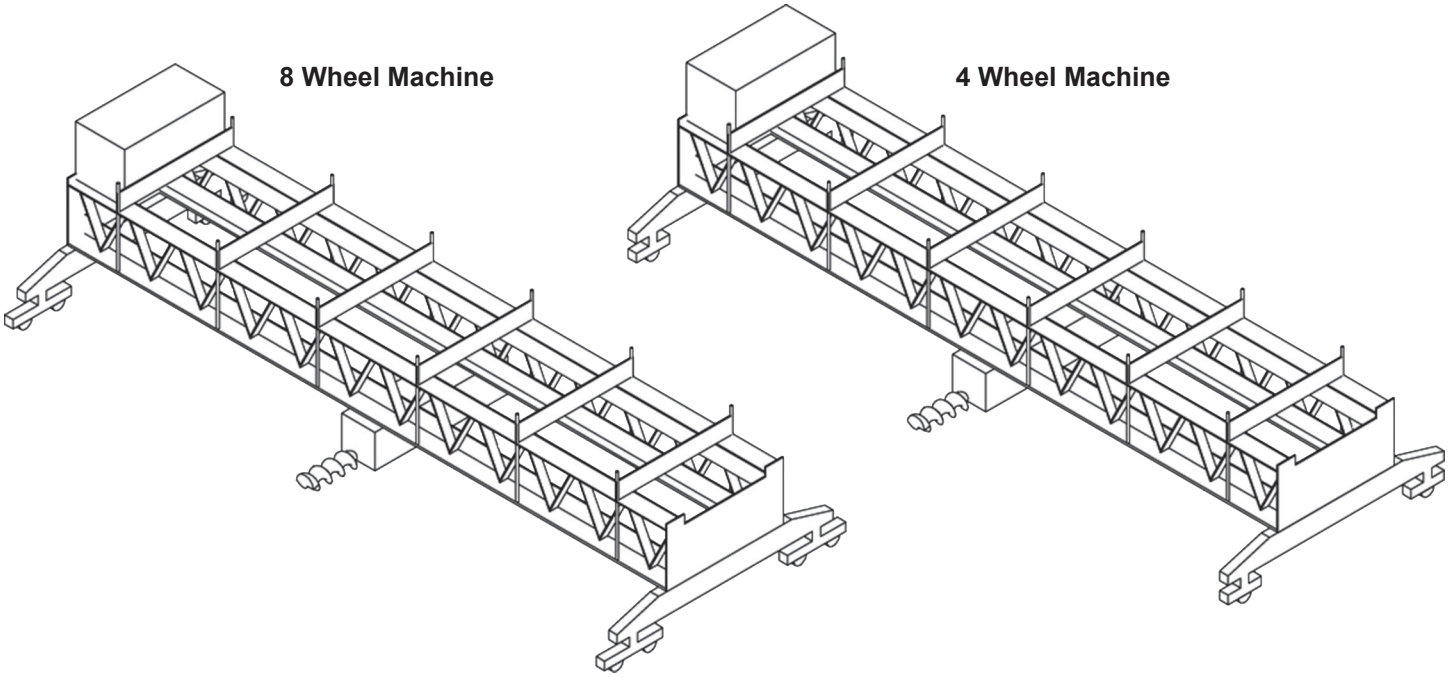
Interior Hanger Spacing - SWL 8,000 lb per Side											
Design Load PSF	Slab	Clear Span Between Beams									
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
156.7	8”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
183.3	10”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”	7’-3”
210.0	12”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-9”	6’-3”
236.7	14”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-9”	6’-0”	5’-9”
263.3	16”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-6”	6’-9”	6’-0”	5’-6”	5’-0”
290.0	18”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”	6’-9”	6’-0”	5’-6”	5’-0”	4’-6”
316.7	20”	8’-0”	8’-0”	8’-0”	8’-0”	7’-0”	6’-3”	5’-6”	5’-0”	4’-6”	4’-0”

Interior Hanger Spacing - SWL 11,300 lb per Side											
Design Load PSF	Slab	Clear Span Between Beams									
		3’-0”	4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
		Maximum Interior Hanger Spacing									
130.0	6”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
156.7	8”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
183.3	10”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
210.0	12”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”
236.7	14”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”
263.3	16”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”	7’-0”
290.0	18”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”	7’-0”	6’-3”
316.7	20”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	8’-0”	7’-9”	7’-0”	6’-3”	5’-9”

Exterior Hanger Spacing Tables

The tables shown on the following pages indicate the maximum hanger and Bridge Overhang Bracket spacing for various slab thicknesses and screed loads, the type of hanger and bracket required, and the proper bracket dimensions needed to safely obtain the spacings listed.

The two basic types of bridge deck finishing/screed machines are illustrated below:



Product specifications subject to change without notice.

When selecting a trial Hanger and Bridge Overhang Bracket spacing, and the selected spacing is:

- Wheel Spacing equal to or less than 1.0, multiply Wheel Load by a Screed Load Factor of 1.0
- Wheel spacing 1.0 and 2.0, multiply Wheel Load by a Screed Load Factor of 1.5
- Wheel Spacing 2.0 and 3.0, multiply Wheel Load by a Screed Load Factor of 1.7
- Wheel Spacing 3.0 and 4.0, multiply Wheel Load by a Screed Load Factor of 1.9
- Wheel Spacing greater than 4.0, multiply Wheel Load by a Screed Load Factor of 2.3

To determine total Screed Load (S) applied to an overhang bracket, use this approximation or the next highest incremental value for the total load per bracket when referring to the spacing tables.

Hanger and Bridge Overhang Bracket spacing example:

- Steel beam is 40” deep with 1” flange
- Concrete slab is 8” thick (157 psf design load) with 3’-0” overhang
- Using Bridge Overhang Bracket and Type 8A Hanger (4,500 lbs)
- Screed machine is 8-wheel type, with 1’-6” wheel spacing, at 650 lbs/wheel load

The “D” dimension in the spacing table is the beam depth, less the flange thickness, forming lumber thickness, and 2” to 6” of additional clearance.

Determine the Screed Load Factor:

$$\frac{\text{4’-0” (trial bracket spacing)}}{\text{1’-6” (screed wheel spacing)}} = 2.66 \text{ is a Screed Load Factor of 1.7 (shown above)}$$

Determine the screed load per bracket:

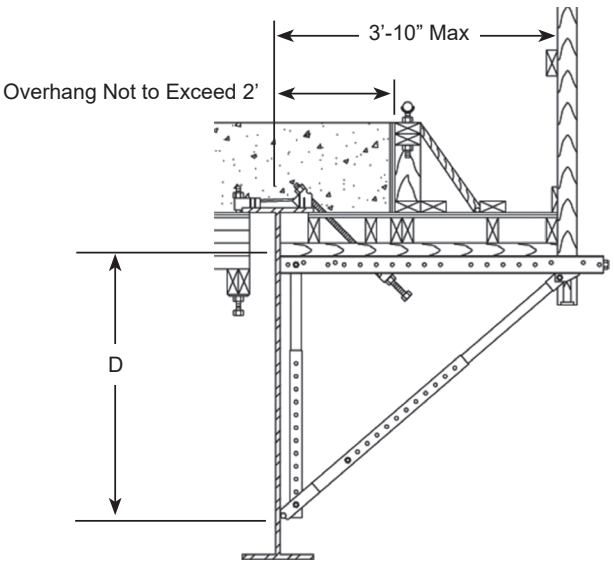
(Screed load/wheel)(Screed Load Factor) = 650 lbs x 1.7 = 1105 lbs Screed load per bracket

Refer to the hanger spacing table for a steel beam with 3’-0” overhang. Find the 8” slab thickness (157 psf design load), 30” bracket D dimension and 4500 lb hanger. Follow the row until it intersects with the vertical column showing the screed load per bracket. In this example, the maximum allowable hanger and bracket spacing is 3’-3”.

Exterior Hanger Spacing with Bridge Overhang Bracket for Steel Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30" to 50"	5'-9"	3'-0"	2'-3"	1'-6"	1'-0"	--	--	--	3,000 to 3,500
			8'-0"	6'-0"	5'-3"	4'-6"	3'-9"	3'-3"	2'-6"	1'-9"	4,500 to 5,000
			8'-0"	8'-0"	8'-0"	7'-6"	6'-9"	6'-0"	5'-6"	4'-9"	6,000
157 psf	8"	30" to 50"	5'-3"	2'-9"	2'-0"	1'-6"	--	--	--	--	3,000 to 3,500
			7'-9"	5'-3"	4'-9"	4'-0"	3'-6"	2'-9"	2'-3"	1'-6"	4,500 to 5,000
			8'-0"	8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	4'-9"	4'-3"	6,000
184 psf	10"	30" to 50"	4'-9"	2'-6"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-0"	4'-9"	4'-3"	3'-9"	3'-0"	2'-6"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	5'-0"	4'-6"	3'-9"	6,000
210 psf	12"	30" to 50"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-6"	4'-6"	4'-0"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	6,000
237 psf	14"	30" to 50"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-3"	4'-9"	4'-3"	3'-9"	3'-3"	6,000
264 psf	16"	30" to 50"	3'-9"	1'-9"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-6"	3'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-6"	5'-9"	5'-3"	4'-9"	4'-3"	3'-9"	3'-6"	3'-0"	6,000
290 psf	18"	30" to 50"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	4'-9"	4'-6"	4'-0"	3'-6"	3'-3"	2'-9"	6,000
317 psf	20"	30" to 50"	3'-3"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	3'-0"	2'-6"	6,000

Notes:

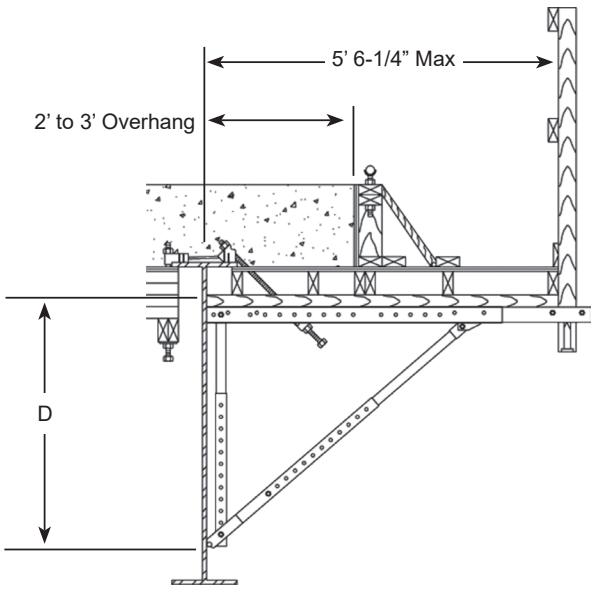
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Steel Beams with 2'-0" to 3'-0" Overhang											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30" to 50"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-0	4'-6"	4'-3"	3'-9"	3'-3"	6,000
157 psf	8"	30" to 50"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	5'-0"	4'-6"	4'-0"	3'-9"	3'-3"	2'-9"	6,000
184 psf	10"	30" to 50"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-6"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	6,000
210 psf	12"	30" to 50"	2'-9"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	3'-0"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	--	4,500 to 5,000
			5'-9"	4'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	2'-3"	6,000
237 psf	14"	30" to 50"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-0"	6,000
264 psf	16"	30" to 50"	2'-3"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	6,000
290 psf	18"	30" to 50"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-6"	3'-6"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
317 psf	20"	30" to 50"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000

Notes:

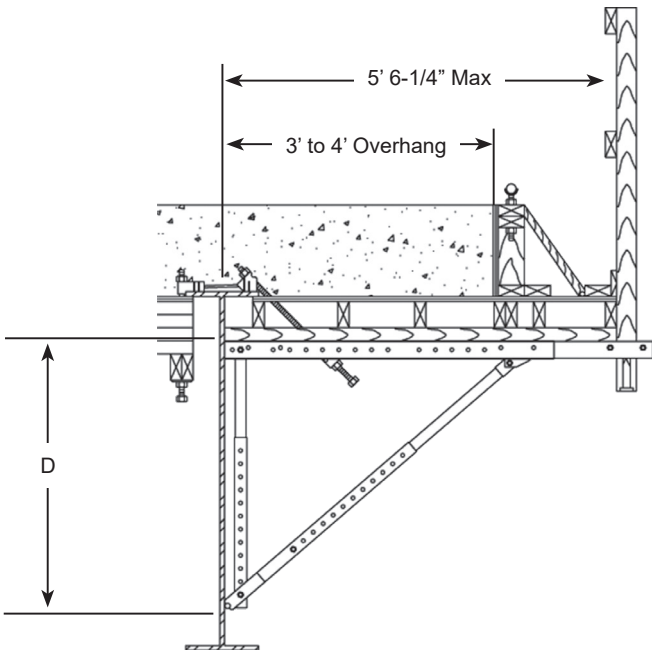
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Steel Beams with 3'-0" to 4'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30"	3'-6"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-3"	--	4,500 to 5,000
			7'-0"	5'-3"	4'-3"	3'-6"	2'-9"	2'-0"	1'-6"	--	6,000
157 psf	8"	30"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	--	4,500 to 5,000
			6'-0"	4'-6"	4'-0"	3'-3"	2'-6"	1'-9"	1'-3"	--	6,000
184 psf	10"	30"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	--	--	4,500 to 5,000
			5'-3"	4'-0"	3'-6"	3'-0"	2'-3"	1'-6"	1'-0"	--	6,000
210 psf	12"	30"	2'-3"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-0"	--	--	4,500 to 5,000
			4'-9"	3'-6"	3'-3"	2'-9"	2'-0"	1'-6"	1'-0"	--	6,000
237 psf	14"	30"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-3"	1'-9"	1'-3"	1'-0"	--	6,000
264 psf	16"	30"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	3'-0"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	6,000
290 psf	18"	30"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-6"	2'-9"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	6,000
317 psf	20"	30"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-6"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-3"	2'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	--	6,000

Notes:

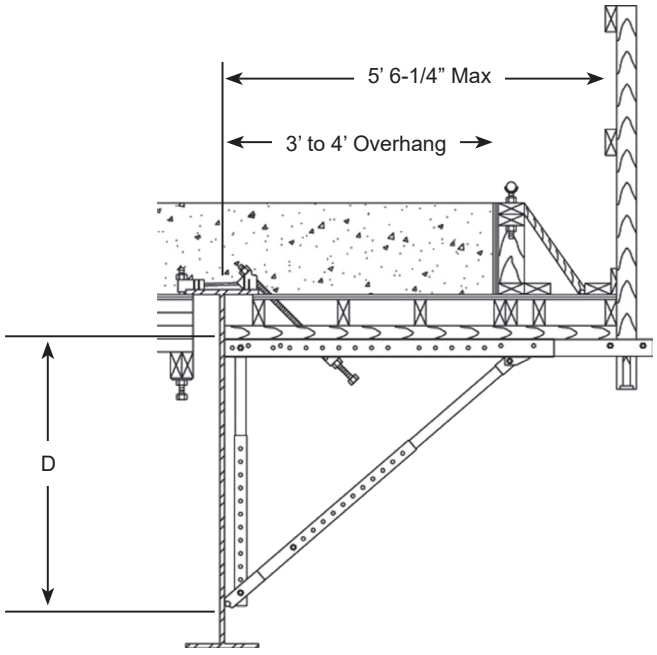
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Steel Beams with 3'-0" to 4'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	40" to 50"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	4'-9"	4'-6"	4'-0"	3'-6"	3'-0"	2'-3"	6,000
157 psf	8"	40" to 50"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-3"	--	4,500 to 5,000
			6'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-9"	2'-0"	6,000
184 psf	10"	40" to 50"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	1'-9"	6,000
210 psf	12"	40" to 50"	2'-3"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-6"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	1'-9"	6,000
237 psf	14"	40" to 50"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-6"	6,000
264 psf	16"	40" to 50"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	6,000
290 psf	18"	40" to 50"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-3"	1'-0"	1'-0"	--	--	4,500 to 5,000
			3'-6"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	6,000
317 psf	20"	40" to 50"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-6"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-3"	2'-6"	2'-3"	2'-0"	1'-9"	1'-9"	1'-6"	1'-3"	6,000

Notes:

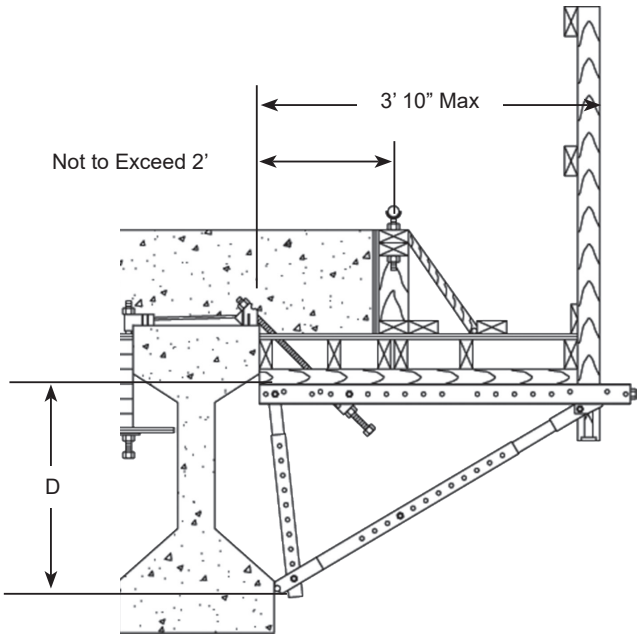
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Precast Concrete Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30" to 50"	4'-9"	2'-6"	2'-0"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-3"	5'-0"	4'-6"	3'-9"	3'-3"	2'-9"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-6"	7'-0"	6'-3	5'-9"	5'-3"	4'-6"	4'-0"	6,000
157 psf	8"	30" to 50"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-6"	4'-6"	4'-0"	3'-6"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-9"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	6,000
184 psf	10"	30" to 50"	3'-9"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-3"	4,500 to 5,000
			7'-9"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-3"	6,000
210 psf	12"	30" to 50"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-9"	3'-3"	2'-9"	6,000
237 psf	14"	30" to 50"	3'-3"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-6"	6,000
264 psf	16"	30" to 50"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-3"	--	4,500 to 5,000
			6'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-9"	2'-6"	6,000
290 psf	18"	30" to 50"	2'-9"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	2'-9"	2'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	4,500 to 5,000
			5'-6"	4'-3"	4'-0"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	6,000
317 psf	20"	30" to 50"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-6"	3'-3"	3'-0"	2'-9"	2'-3"	2'-0"	6,000

Notes:

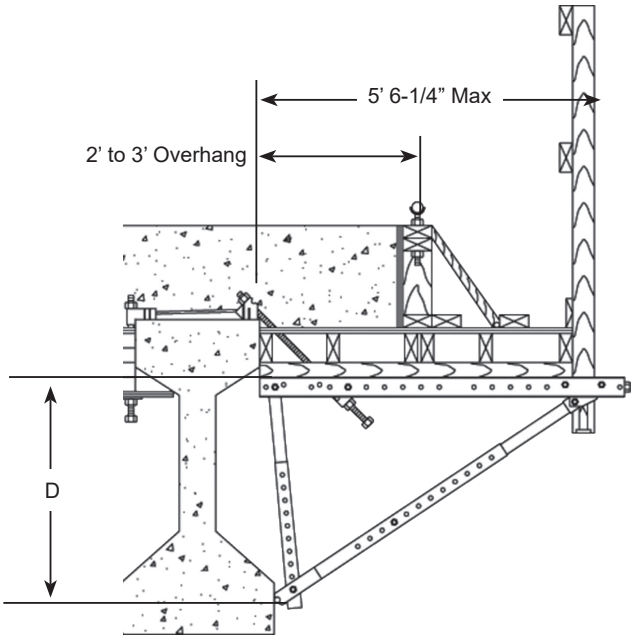
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Precast Concrete Beams with 2'-0" to 3'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30" to 50"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	5'-0"	4'-6	4'-0"	3'-6"	2'-9"	2'-3"	6,000
157 psf	8"	30" to 50"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-3"	4'-0"	3'-6"	3'-3"	2'-9"	2'-6"	6,000
184 psf	10"	30" to 50"	2'-9"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-6"	2'-0"	1'-9"	1'-6"	1'-0"	--	4,500 to 5,000
			5'-6"	4'-3"	3'-9"	3'-6"	3'-3"	2'-9"	2'-6"	2'-3"	6,000
210 psf	12"	30" to 50"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-9"	2'-6"	2'-3"	2'-0"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-0"	3'-9"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	6,000
237 psf	14"	30" to 50"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-6"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
264 psf	16"	30" to 50"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
290 psf	18"	30" to 50"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	6,000
317 psf	20"	30" to 50"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-9"	1'-6"	1'-3"	1'-0"	1'-0"	--	--	4,500 to 5,000
			3'-6"	2'-9"	2'-6"	2'-3"	2'-0"	2'-9"	1'-6"	1'-6"	6,000

Notes:

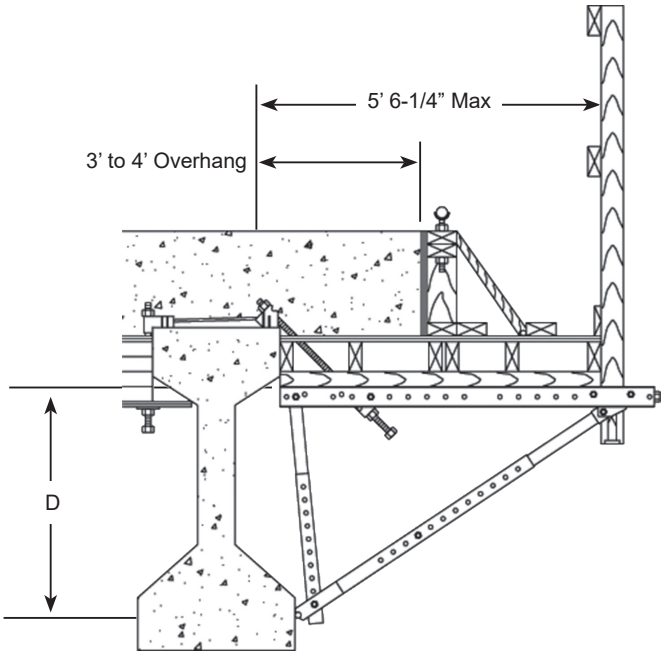
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket for Precast Concrete Beams with 3'-0" to 4'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	30" to 50"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-3"	2'-9"	2'-6"	1'-9"	--	--	--	4,500 to 5,000
			6'-9"	3'-9"	3'-0"	2'-6"	1'-9"	--	--	--	6,000
157 psf	8"	30" to 50"	2'-6"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-6"	--	--	--	4,500 to 5,000
			5'-3"	3'-6"	2'-9"	2'-3"	1'-6"	--	--	--	6,000
184 psf	10"	30" to 50"	2'-3"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-9"	1'-3"	--	--	--	4,500 to 5,000
			4'-9"	3'-0"	2'-6"	2'-0"	1'-6"	--	--	--	6,000
210 psf	12"	30" to 50"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	--	--	--	4,500 to 5,000
			4'-3"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	--	6,000
237 psf	14"	30" to 50"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-9"	1'-9"	1'-6"	1'-0"	--	--	--	4,500 to 5,000
			3'-9"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	--	6,000
264 psf	16"	30" to 50"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	--	--	6,000
290 psf	18"	30" to 50"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-3"	1'-6"	1'-3"	1'-0"	--	--	--	--	4,500 to 5,000
			3'-0"	2'-0"	1'-9"	1'-3"	1'-0"	--	--	--	6,000
317 psf	20"	30" to 50"	1'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-0"	1'-6"	1'-3"	1'-0"	--	--	--	--	4,500 to 5,000
			2'-9"	2'-0"	1'-6"	1'-3"	--	--	--	--	6,000

Notes:

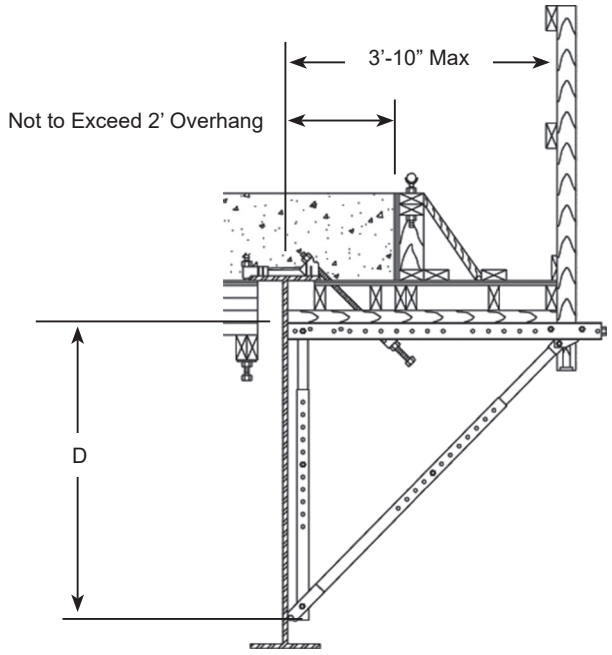
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Steel Beams with 1'-0" to 2'-0" Overhang											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	5'-9"	3'-0"	2'-3"	1'-6"	1'-0"	--	--	--	3,000 to 3,500
			8'-0"	6'-0"	5'-3"	4'-6"	3'-9"	3'-3"	2'-6"	1'-9"	4,500 to 5,000
			8'-0"	8'-0"	8'-0"	7'-6"	6'-9"	6'-0"	5'-6"	4'-9"	6,000
157 psf	8"	50" to 70"	5'-3"	2'-9"	2'-0"	1'-6"	--	--	--	--	3,000 to 3,500
			7'-9"	5'-3"	4'-9"	4'-0"	3'-6"	2'-9"	2'-3"	1'-6"	4,500 to 5,000
			8'-0"	8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	4'-9"	4'-3"	6,000
184 psf	10"	50" to 70"	4'-9"	2'-6"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-0"	4'-9"	4'-3"	3'-9"	3'-0"	2'-6"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	5'-0"	4'-6"	3'-9"	6,000
210 psf	12"	50" to 70"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-6"	4'-6"	4'-0"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	6,000
237 psf	14"	50" to 70"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-3"	4'-9"	4'-3"	3'-9"	3'-3"	6,000
264 psf	16"	50" to 70"	3'-9"	1'-9"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-6"	3'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-6"	5'-9"	5'-3"	4'-9"	4'-3"	3'-9"	3'-6"	3'-0"	6,000
290 psf	18"	50" to 70"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	4'-9"	4'-6"	4'-0"	3'-6"	3'-3"	2'-9"	6,000
317 psf	20"	50" to 70"	3'-3"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	3'-0"	2'-6"	6,000

Notes:

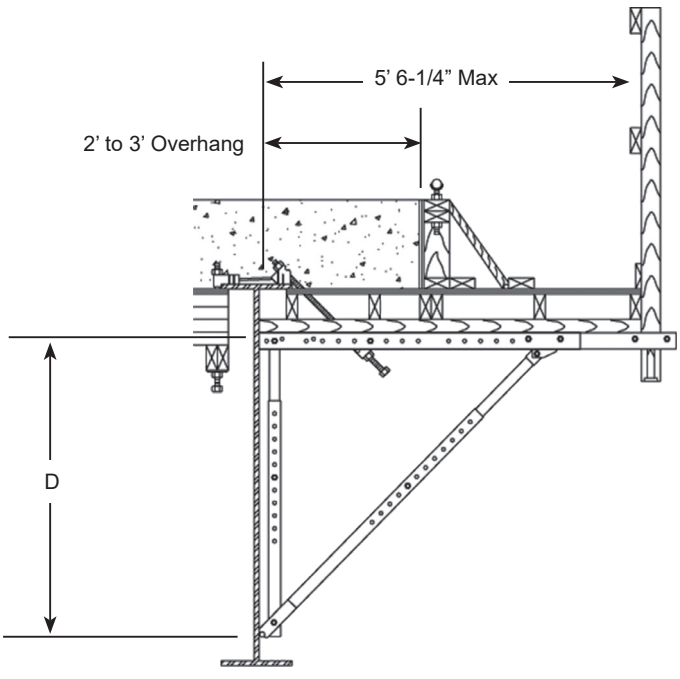
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Steel Beams with 2'-0" to 3'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	6,000
157 psf	8"	50" to 70"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	5'-0"	4'-6"	4'-0"	3'-9"	3'-3"	2'-9"	6,000
184 psf	10"	50" to 70"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-6"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	6,000
210 psf	12"	50" to 70"	2'-9"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	3'-0"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	--	4,500 to 5,000
			5'-9"	4'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	2'-3"	6,000
237 psf	14"	50" to 70"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-0"	6,000
264 psf	16"	50" to 70"	2'-3"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	6,000
290 psf	18"	50" to 70"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-6"	3'-6"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
317 psf	20"	50" to 70"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000

Notes:

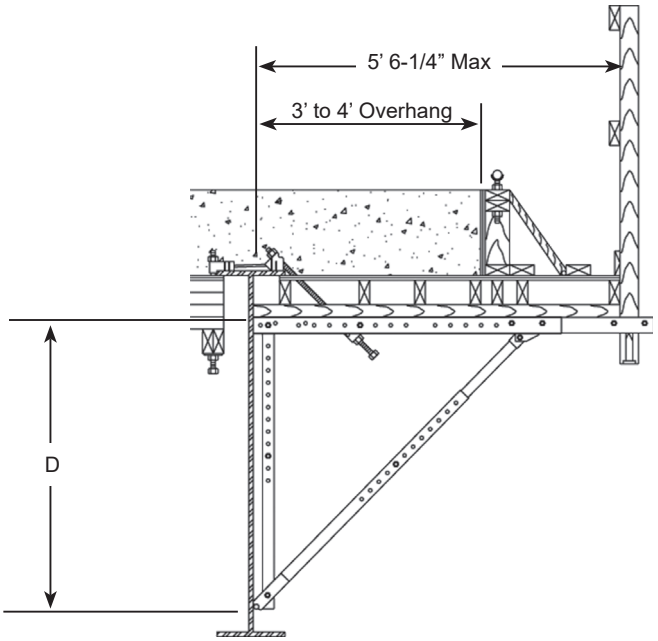
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Steel Beams with 3'-0" to 4'-0" Overhang											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	3'-6"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	4'-9"	4'-6"	4'-0"	3'-6"	3'-3"	2'-9"	6,000
157 psf	8"	50" to 70"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-3"	--	4,500 to 5,000
			6'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-9"	2'-3"	6,000
184 psf	10"	50" to 70"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-6"	3'-0"	2'-9"	2'-6"	2'-0"	6,000
210 psf	12"	50" to 70"	2'-3"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-6"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	1'-9"	6,000
237 psf	14"	50" to 70"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
264 psf	16"	50" to 70"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	6,000
290 psf	18"	50" to 70"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-6"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	6,000
317 psf	20"	50" to 70"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-6"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-3"	2'-6"	2'-3"	2'-0"	1'-9"	1'-9"	1'-6"	1'-3"	6,000

Notes:

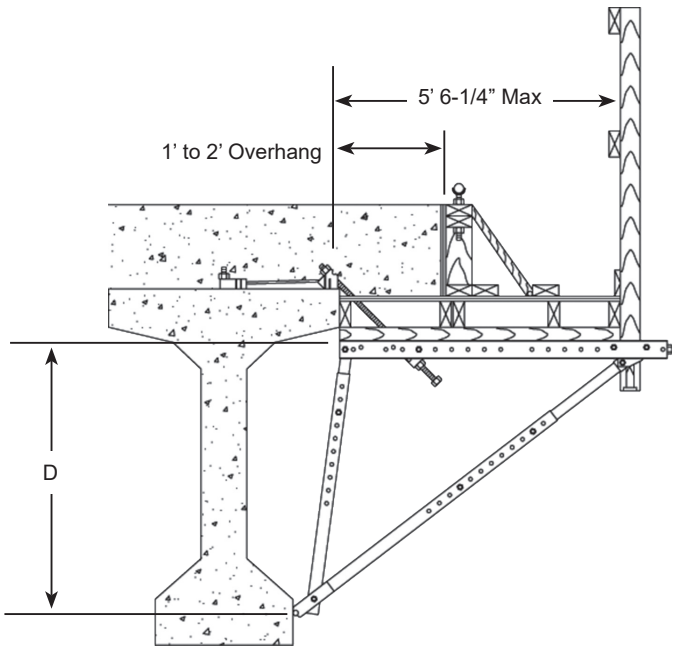
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Precast Concrete Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	4'-9"	2'-6"	2'-0"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-3"	5'-0"	4'-6"	3'-9"	3'-3"	2'-9"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-6"	7'-0"	6'-3"	5'-9"	5'-3"	4'-6"	4'-0"	6,000
157 psf	8"	50" to 70"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-6"	4'-6"	4'-0"	3'-6"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-9"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	6,000
184 psf	10"	50" to 70"	3'-9"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-3"	4,500 to 5,000
			7'-9"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-3"	6,000
210 psf	12"	50" to 70"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-9"	3'-3"	2'-9"	6,000
237 psf	14"	50" to 70"	3'-3"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-6"	6,000
264 psf	16"	50" to 70"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-3"	--	4,500 to 5,000
			6'-0"	4'-6"	4'-3"	3'-9"	3'-6"	3'-0"	2'-9"	2'-6"	6,000
290 psf	18"	50" to 70"	2'-9"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	2'-9"	2'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	4,500 to 5,000
			5'-6"	4'-3"	4'-0"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	6,000
317 psf	20"	50" to 70"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-6"	3'-3"	3'-0"	2'-9"	2'-3"	2'-0"	6,000

Notes:

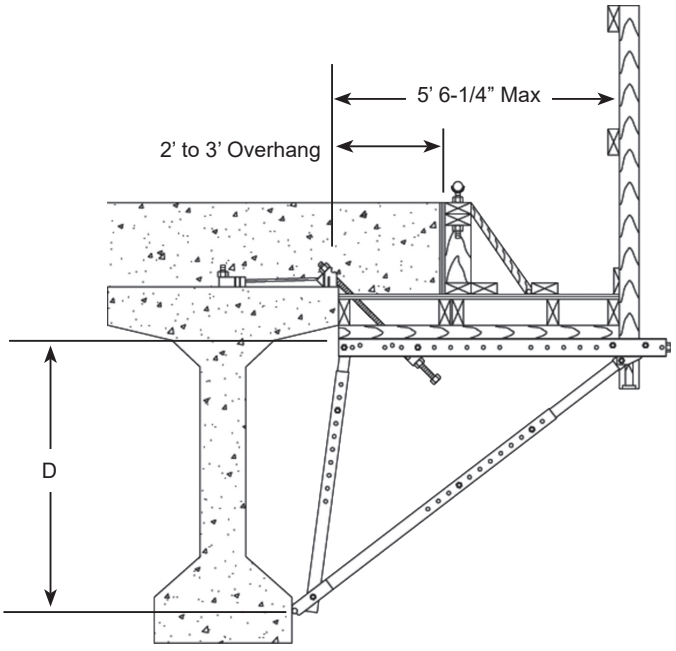
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Precast Concrete Beams with 2'-0" to 3'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	5'-0"	4'-6"	4'-0"	3'-6"	2'-9"	2'-3"	6,000
157 psf	8"	50" to 70"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-3"	4'-0"	3'-6"	3'-3"	2'-9"	2'-6"	6,000
184 psf	10"	50" to 70"	2'-9"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-6"	2'-0"	1'-9"	1'-6"	1'-0"	--	4,500 to 5,000
			5'-6"	4'-3"	3'-9"	3'-6"	3'-3"	2'-9"	2'-6"	2'-3"	6,000
210 psf	12"	50" to 70"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-9"	2'-6"	2'-3"	2'-0"	1'-6"	1'-3"	1'-6"	--	4,500 to 5,000
			5'-0"	3'-9"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	6,000
237 psf	14"	50" to 70"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-6"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
264 psf	16"	50" to 70"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
290 psf	18"	50" to 70"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	6,000
317 psf	20"	50" to 70"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-9"	1'-6"	1'-3"	1'-0"	1'-0"	--	--	4,500 to 5,000
			3'-6"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	2'-6"	1'-6"	6,000

Notes:

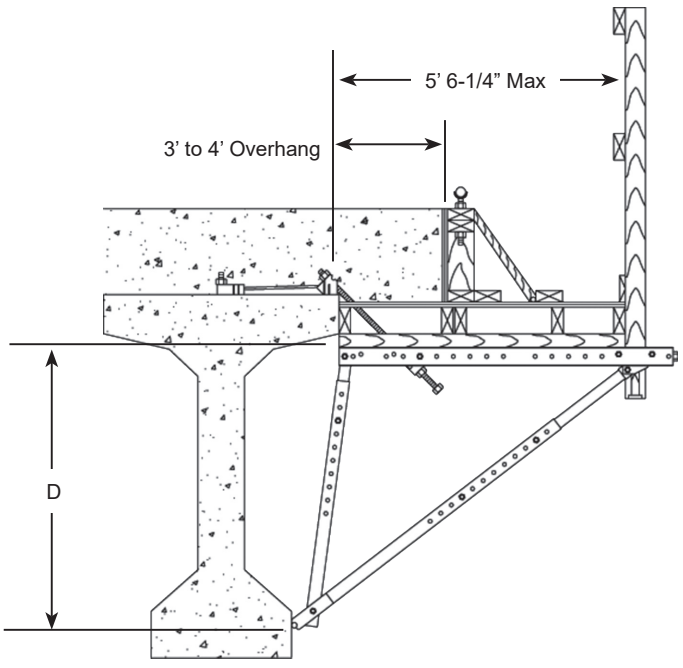
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Deep) for Precast Concrete Beams with 3'-0" to 4'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	50" to 70"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-3"	4'-0"	3'-9"	3'-3"	2'-9"	2'-0"	6,000
157 psf	8"	50" to 70"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-6"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-6"	3'-0"	2'-9"	2'-6"	2'-0"	6,000
184 psf	10"	50" to 70"	2'-3"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-6"	3'-6"	3'-0"	2'-9"	2'-6"	2'-3"	1'-9"	6,000
210 psf	12"	50" to 70"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-6"	6,000
237 psf	14"	50" to 70"	1'-9"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-9"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			3'-9"	2'-9"	2'-6"	2'-3"	2'-3"	2'-0"	1'-9"	1'-3"	6,000
264 psf	16"	50" to 70"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-6"	2'-6"	2'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	6,000
290 psf	18"	50" to 70"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-3"	1'-6"	1'-3"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			3'-0"	2'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-6"	1'-0"	6,000
317 psf	20"	50" to 70"	1'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-0"	1'-6"	1'-3"	1'-0"	1'-0"	--	--	--	4,500 to 5,000
			2'-9"	2'-3"	2'-0"	1'-9"	1'-9"	1'-6"	1'-3"	1'-0"	6,000

Notes:

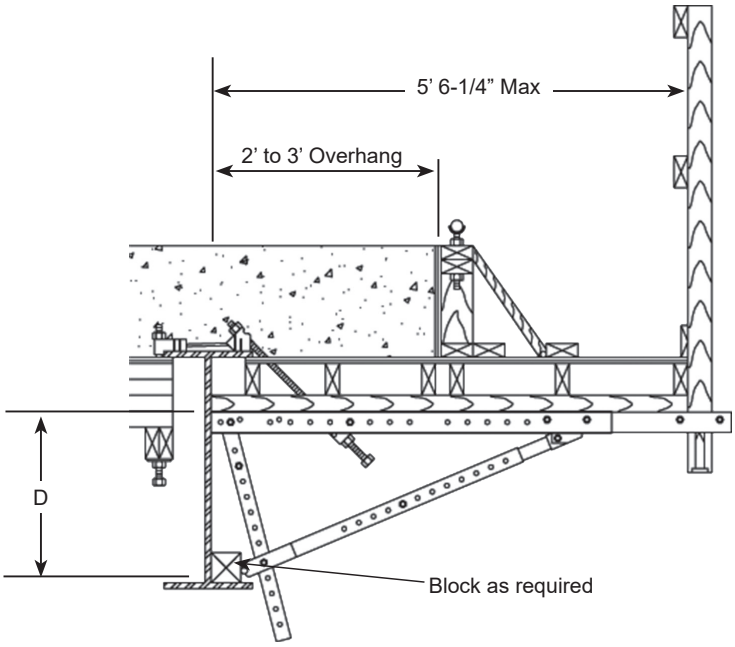
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	14" to 28"	5'-9"	3'-0"	2'-3"	1'-6"	1'-0"	--	--	--	3,000 to 3,500
			8'-0"	6'-0"	5'-3"	4'-6"	3'-9"	3'-3"	2'-6"	1'-9"	4,500 to 5,000
			8'-0"	8'-0"	8'-0"	7'-6"	6'-9"	6'-0"	5'-6"	4'-9"	6,000
157 psf	8"	14" to 28"	5'-3"	2'-9"	2'-0"	1'-6"	--	--	--	--	3,000 to 3,500
			7'-9"	5'-3"	4'-9"	4'-0"	3'-6"	2'-9"	2'-3"	1'-6"	4,500 to 5,000
			8'-0"	8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	4'-9"	4'-3"	6,000
184 psf	10"	14" to 28"	4'-9"	2'-6"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-0"	4'-9"	4'-3"	3'-9"	3'-0"	2'-6"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-3"	6'-9"	6'-0"	5'-6"	5'-0"	4'-6"	3'-9"	6,000
210 psf	12"	14" to 28"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-6"	4'-6"	4'-0"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	6,000
237 psf	14"	14" to 28"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-3"	4'-9"	4'-3"	3'-9"	3'-3"	6,000
264 psf	16"	14" to 28"	3'-9"	1'-9"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-6"	3'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-6"	5'-9"	5'-3"	4'-9"	4'-3"	3'-9"	3'-6"	3'-0"	6,000
290 psf	18"	14" to 28"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	4'-9"	4'-6"	4'-0"	3'-6"	3'-3"	2'-9"	6,000
317 psf	20"	14" to 28"	3'-3"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	3'-0"	2'-6"	6,000

Notes:

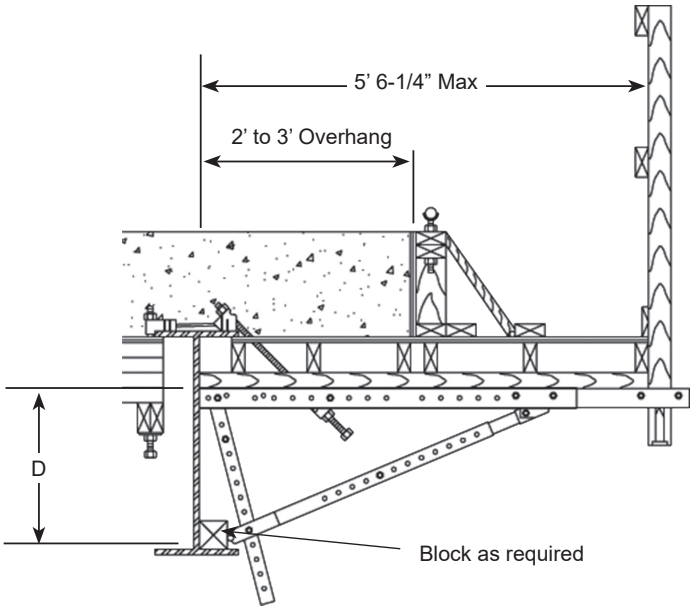
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 2'-0" to 3'-0" Overhang and 14" bracket depth										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	14"	3'-6"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			5'-3"	2'-9"	2'-3"	1'-6"	1'-0"	--	--	--	4,500 to 5,000
			6'-3"	3'-9"	3'-0"	2'-6"	1'-9"	1'-3"	--	--	6,000
157 psf	8"	14"	3'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			4'-9"	2'-6"	2'-0"	1'-6"	--	--	--	--	4,500 to 5,000
			5'-9"	3'-6"	2'-9"	2'-3"	1'-9"	1'-0"	--	--	6,000
184 psf	10"	14"	2'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	4,500 to 5,000
			5'-3"	3'-3"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	6,000
210 psf	12"	14"	2'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-9"	2'-0"	1'-6"	1'-3"	--	--	--	--	4,500 to 5,000
			5'-0"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	6,000
237 psf	14"	14"	2'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	1'-9"	1'-6"	1'-0"	--	--	--	--	4,500 to 5,000
			4'-6"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	--	6,000
264 psf	16"	14"	2'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	1'-9"	1'-3"	1'-0"	--	--	--	--	4,500 to 5,000
			4'-3"	2'-6"	2'-0"	1'-9"	1'-3"	--	--	--	6,000
290 psf	18"	14"	2'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	1'-6"	1'-3"	--	--	--	--	--	4,500 to 5,000
			4'-0"	2'-6"	2'-0"	1'-6"	1'-3"	--	--	--	6,000
317 psf	20"	14"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-6"	1'-0"	--	--	--	--	--	4,500 to 5,000
			3'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	--	--	6,000

Notes:

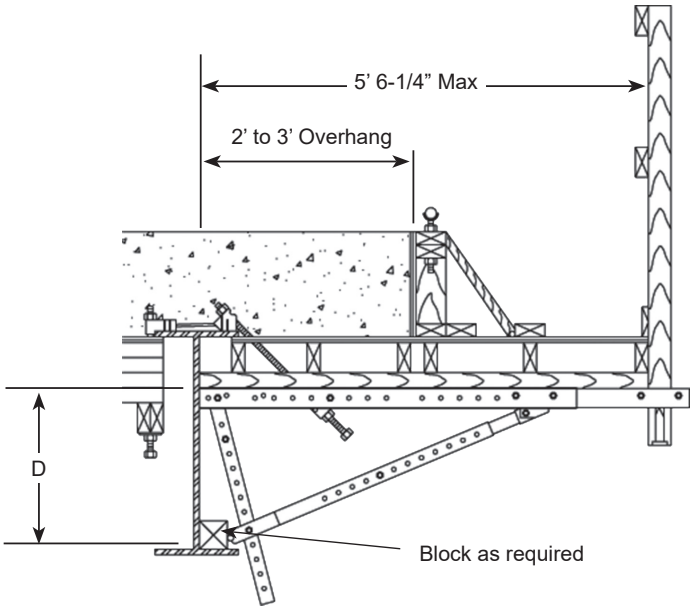
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 2'-0" to 3'-0" Overhang and 20" bracket depth										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	20"	4'-0"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	2'-9"	2'-3"	1'-9"	1'-0"	--	4,500 to 5,000
			8'-0"	5'-0"	4'-3"	3'-9"	3'-0"	2'-6"	1'-9"	1'-3"	6,000
157 psf	8"	20"	3'-6"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	--	4,500 to 5,000
			7'-0"	4'-9"	4'-0"	3'-6"	2'-9"	2'-3"	1'-9"	1'-0"	6,000
184 psf	10"	20"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	4,500 to 5,000
			6'-3"	4'-6"	3'-9"	3'-3"	2'-9"	2'-0"	1'-6"	1'-0"	6,000
210 psf	12"	20"	2'-9"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	--	--	4,500 to 5,000
			5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	6,000
237 psf	14"	20"	2'-6"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	--	--	4,500 to 5,000
			5'-3"	3'-9"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	1'-0"	6,000
264 psf	16"	20"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-9"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	--	6,000
290 psf	18"	20"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	1'-9"	1'-6"	1'-3"	--	--	--	4,500 to 5,000
			4'-6"	3'-3"	2'-9"	2'-6"	2'-0"	1'-6"	1'-3"	--	6,000
317 psf	20"	20"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-0"	--	--	--	4,500 to 5,000
			4'-3"	3'-0"	2'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--	6,000

Notes:

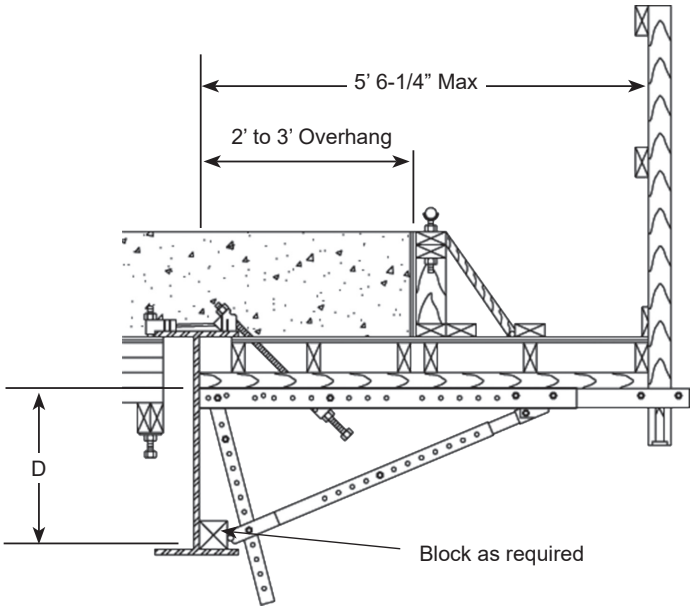
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 2'-0" to 3'-0" Overhang and 26" bracket depth										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	26"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-0"	5'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	6,000
157 psf	8"	26"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	1'-9"	1'-6"	1'-0"	4,500 to 5,000
			7'-0"	5'-3"	5'-0"	4'-6"	4'-0"	3'-9"	3'-3"	2'-9"	6,000
184 psf	10"	26"	3'-0"	1'-6"	1'-3"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	2'-9"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-3"	4'-9"	4'-6"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	6,000
210 psf	12"	26"	2'-9"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-3"	3'-0"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	--	4,500 to 5,000
			5'-9"	4'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-6"	2'-3"	6,000
237 psf	14"	26"	2'-6"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	4,500 to 5,000
			5'-3"	4'-0"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-0"	6,000
264 psf	16"	26"	2'-3"	1'-3"	1'-0"	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-6"	2'-3"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-9"	3'-9"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	6,000
290 psf	18"	26"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	4,500 to 5,000
			4'-6"	3'-6"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000
317 psf	20"	26"	2'-0"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	4,500 to 5,000
			4'-3"	3'-3"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	6,000

Notes:

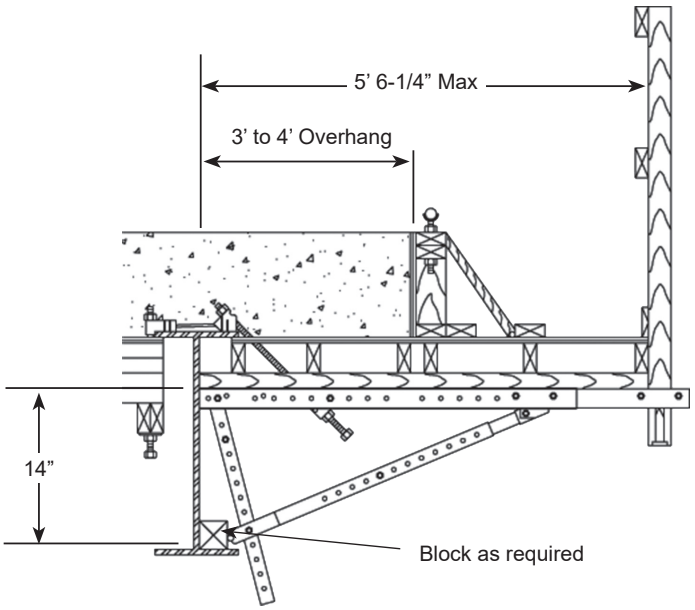
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 3'-0" to 4'-0" Overhang and 14" bracket depth											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	14"	2'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	1'-6"	--	--	--	--	--	--	4,500 to 5,000
			4'-9"	2'-3"	1'-6"	--	--	--	--	--	6,000
157 psf	8"	14"	2'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	1'-3"	--	--	--	--	--	--	4,500 to 5,000
			4'-3"	2'-0"	1'-3"	--	--	--	--	--	6,000
184 psf	10"	14"	2'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	1'-3"	--	--	--	--	--	--	4,500 to 5,000
			3'-9"	1'-9"	1'-3"	--	--	--	--	--	6,000
210 psf	12"	14"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-0"	--	--	--	--	--	--	4,500 to 5,000
			3'-6"	1'-6"	1'-0"	--	--	--	--	--	6,000
237 psf	14"	14"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-0"	--	--	--	--	--	--	4,500 to 5,000
			3'-3"	1'-6"	1'-0"	--	--	--	--	--	6,000
264 psf	16"	14"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-3"	--	--	--	--	--	--	--	4,500 to 5,000
			3'-0"	1'-3"	--	--	--	--	--	--	6,000
290 psf	18"	14"	1'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			1'-9"	--	--	--	--	--	--	--	4,500 to 5,000
			2'-9"	1'-3"	--	--	--	--	--	--	6,000
317 psf	20"	14"	1'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			1'-9"	--	--	--	--	--	--	--	4,500 to 5,000
			2'-6"	1'-0"	--	--	--	--	--	--	6,000

Notes:

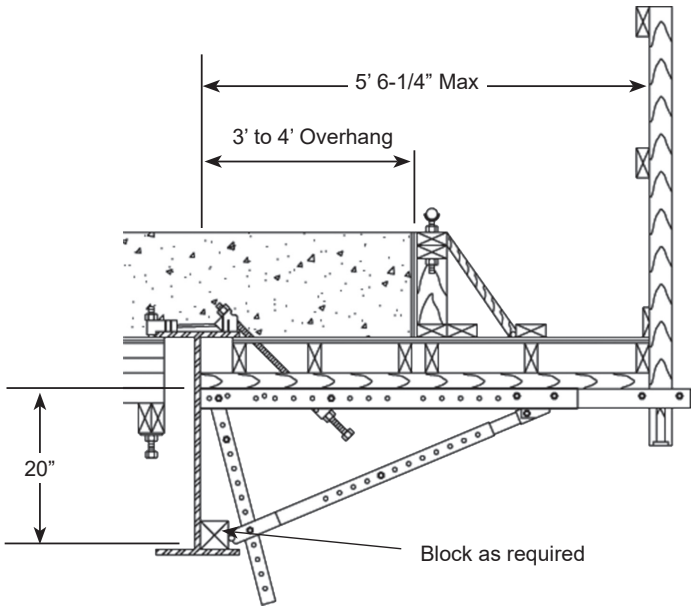
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 3'-0" to 4'-0" Overhang and 20" bracket depth										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	20"	3'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			5'-0"	2'-6"	1'-9"	1'-3"	--	--	--	--	4,500 to 5,000
			5'-9"	3'-3"	2'-6"	1'-9"	1'-3"	--	--	--	6,000
157 psf	8"	20"	3'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-6"	2'-3"	1'-9"	1'-0"	--	--	--	--	4,500 to 5,000
			5'-3"	2'-9"	2'-3"	1'-9"	1'-0"	--	--	--	6,000
184 psf	10"	20"	2'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--	4,500 to 5,000
			4'-9"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	--	6,000
210 psf	12"	20"	2'-3"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	1'-9"	1'-3"	--	--	--	--	--	4,500 to 5,000
			4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--	6,000
237 psf	14"	20"	2'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-0"	1'-6"	1'-0"	--	--	--	--	--	4,500 to 5,000
			3'-9"	2'-0"	1'-6"	1'-3"	--	--	--	--	6,000
264 psf	16"	20"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	1'-3"	1'-0"	--	--	--	--	--	4,500 to 5,000
			3'-6"	2'-0"	1'-6"	1'-0"	--	--	--	--	6,000
290 psf	18"	20"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-3"	--	--	--	--	--	--	4,500 to 5,000
			3'-3"	1'-9"	1'-6"	1'-0"	--	--	--	--	6,000
317 psf	20"	20"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-3"	1'-0"	--	--	--	--	--	--	4,500 to 5,000
			3'-0"	1'-9"	1'-3"	1'-0"	--	--	--	--	6,000

Notes:

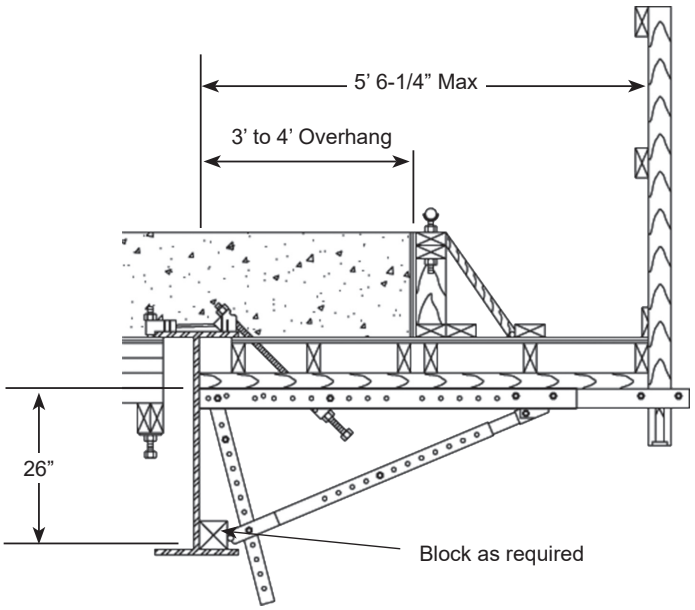
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Steel Beams with 3'-0" to 4'-0" Overhang and 26" bracket depth											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	26"	3'-6"	1'-6"	--	--	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-0"	2'-3"	1'-9"	1'-0"	--	--	4,500 to 5,000
			7'-0"	4'-0"	3'-6"	2'-9"	2'-0"	1'-6"	--	--	6,000
157 psf	8"	26"	3'-0"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			4'-6"	3'-0"	2'-6"	2'-0"	1'-6"	--	--	--	4,500 to 5,000
			6'-0"	3'-9"	3'-0"	2'-6"	1'-9"	1'-3"	--	--	6,000
184 psf	10"	26"	2'-6"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	--	4,500 to 5,000
			5'-3"	3'-3"	2'-9"	2'-3"	1'-9"	1'-0"	--	--	6,000
210 psf	12"	26"	2'-3"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	2'-3"	2'-0"	1'-6"	1'-0"	--	--	--	4,500 to 5,000
			4'-9"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	6,000
237 psf	14"	26"	2'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--	--	--	4,500 to 5,000
			4'-3"	2'-9"	2'-3"	1'-9"	1'-3"	1'-0"	--	--	6,000
264 psf	16"	26"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-9"	2'-0"	1'-6"	1'-3"	--	--	--	--	4,500 to 5,000
			3'-9"	2'-6"	2'-0"	1'-9"	1'-3"	--	--	--	6,000
290 psf	18"	26"	1'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-9"	1'-6"	1'-0"	--	--	--	--	4,500 to 5,000
			3'-6"	2'-3"	2'-0"	1'-6"	1'-3"	--	--	--	6,000
317 psf	20"	26"	1'-6"	--	--	--	--	--	--	--	3,000 to 3,500
			2'-6"	1'-6"	1'-3"	1'-0"	--	--	--	--	4,500 to 5,000
			3'-3"	2'-0"	1'-9"	1'-6"	1'-0"	--	--	--	6,000

Notes:

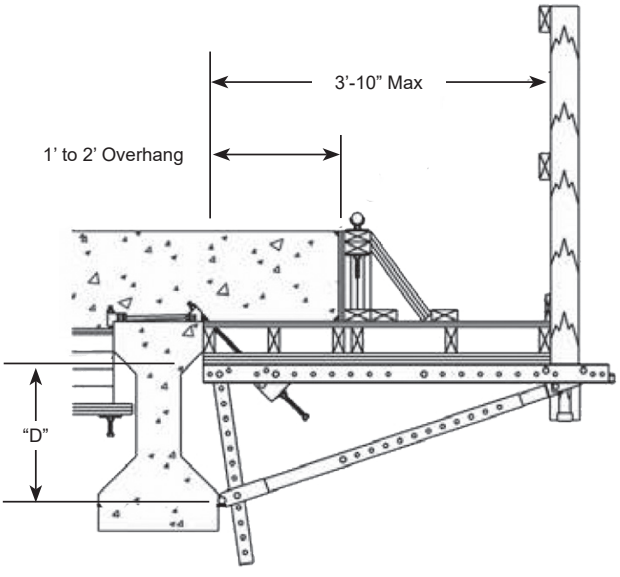
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Precast Concrete Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
157 psf	8"	14"	4'-2"	1'-7"	--	--	--	--	--	--	3,000 to 3,500
			6'-4"	3'-1"	2'-0"	--	--	--	--	--	4,500 to 5,000
			7'-7"	3'-1"	2'-0	--	--	--	--	--	6,000
	8"	20"	4'-3"	2'-2"	1'-8"	1'-2"	--	--	--	--	3,000 to 3,500
			6'-4"	4'-4"	3'-10"	3'-4"	2'-10"	1'-11"	--	--	4,500 to 5,000
			8'-0"	6'-5"	5'-4"	4'-2"	3'-0"	1'-11"	--	--	6,000
	8"	26"	4'-3"	2'-2"	1'-8"	1'-2"	--	--	--	--	3,000 to 3,500
			6'-4"	4'-4"	3'-10"	3'-4"	2'-10"	2'-4"	1'-10"	1'-4"	4,500 to 5,000
			4'-9"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	--	6,000
184 psf	10"	14"	3'-9"	1'-5"	--	--	--	--	--	--	3,000 to 3,500
			5'-8"	2'-11"	1'-10"	--	--	--	--	--	4,500 to 5,000
			7'-1"	2'-11"	1'-10"	--	--	--	--	--	6,000
	10"	20"	3'-10"	2'-0"	1'-6"	1'-1"	--	--	--	--	3,000 to 3,500
			5'-9"	3'-11"	3'-5"	3'-0"	2'-7"	1'-9"	--	--	4,500 to 5,000
			7'-8"	5'-10"	4'-11"	3'-10"	2'-10"	1'-9"	--	--	6,000
	10"	26"	3'-10"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-9"	3'-11"	3'-5"	3'-0"	2'-7"	2'-1"	1'-8"	1'-2"	4,500 to 5,000
			7'-8"	5'-10"	5'-5"	4'-11"	4'-6"	4'-0"	3'-6"	2'-5"	6,000
210 psf	12"	14"	3'-5"	1'-4"	--	--	--	--	--	--	3,000 to 3,500
			5'-2"	2'-8"	1'-9"	--	--	--	--	--	4,500 to 5,000
			6'-6"	2'-8"	1'-9"	--	--	--	--	--	6,000
	12"	20"	3'-6"	1'-10"	1'-5"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-7"	3'-2"	2'-9"	2'-4"	1'-8"	--	--	4,500 to 5,000
			7'-0"	5'-4"	4'-7"	3'-7"	2'-7"	1'-8"	--	--	6,000
	12"	26"	3'-6"	1'-10"	1'-5"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-7"	3'-2"	2'-9"	2'-4"	1'-11"	1'-6"	1'-1"	4,500 to 5,000
			7'-0"	5'-4"	4'-11"	4'-6"	4'-1"	3'-8"	3'-3"	2'-3"	6,000

Notes:

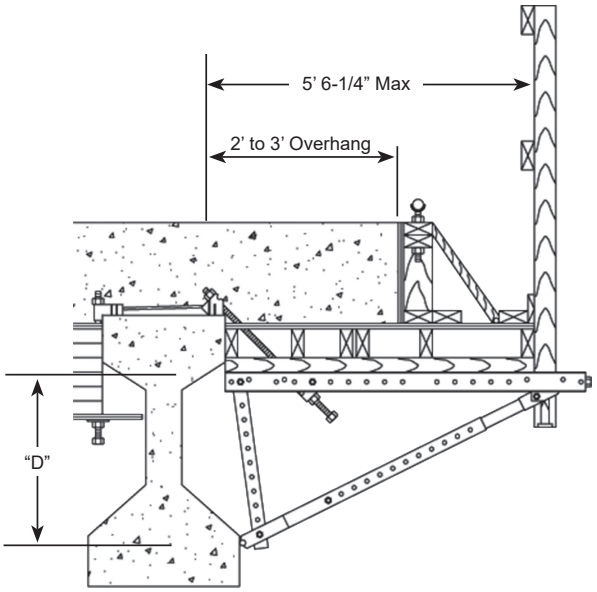
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Modified) for Precast Concrete Beams with 2'-0" to 3'-0" Overhang											
Design Load	Slab	D	Screed Load per Bracket (lbs)								Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
157 psf	8"	14"	3'-0"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-6"	--	--	--	--	--	--	--	4,500 to 5,000
			4'-8"	--	--	--	--	--	--	--	6,000
	8"	20"	3'-6"	1'-2"	--	--	--	--	--	--	3,000 to 3,500
			5'-3"	2'-10"	1'-9"	--	--	--	--	--	4,500 to 5,000
			7'-0"	2'-10"	1'-9"	--	--	--	--	--	6,000
	8"	26"	3'-6"	1'-10"	1'-4"	--	--	--	--	--	3,000 to 3,500
			5'-3"	3'-7"	3'-2"	2'-8"	1'-7"	--	--	--	4,500 to 5,000
			7'-0"	4'-9"	3'-9"	2'-8"	1'-7"	--	--	--	6,000
183 psf	10"	14"	2'-8"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	--	--	--	--	--	--	--	4,500 to 5,000
			4'-2"	--	--	--	--	--	--	--	6,000
	10"	20"	3'-1"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			4'-7"	2'-7"	1'-7"	--	--	--	--	--	4,500 to 5,000
			6'-2"	2'-7"	1'-7"	--	--	--	--	--	6,000
	10"	26"	3'-1"	1'-7"	1'-2"	--	--	--	--	--	3,000 to 3,500
			4'-7"	3'-2"	2'-9"	2'-5"	1'-5"	--	--	--	4,500 to 5,000
			6'-2"	4'-4"	3'-4"	2'-5"	1'-5"	--	--	--	6,000
210 psf	12"	14"	2'-4"	--	--	--	--	--	--	--	3,000 to 3,500
			3'-6"	--	--	--	--	--	--	--	4,500 to 5,000
			3'-9"	--	--	--	--	--	--	--	6,000
	12"	20"	2'-9"	--	--	--	--	--	--	--	3,000 to 3,500
			4'-1"	2'-4"	1'-5"	--	--	--	--	--	4,500 to 5,000
			5'-6"	2'-4"	1'-5"	--	--	--	--	--	6,000
	12"	26"	2'-9"	1'-5"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-1"	2'-10"	2'-6"	2'-2"	1'-4"	--	--	--	4,500 to 5,000
			5'-6"	3'-10"	3'-0"	2'-2"	1'-4"	--	--	--	6,000

Notes:

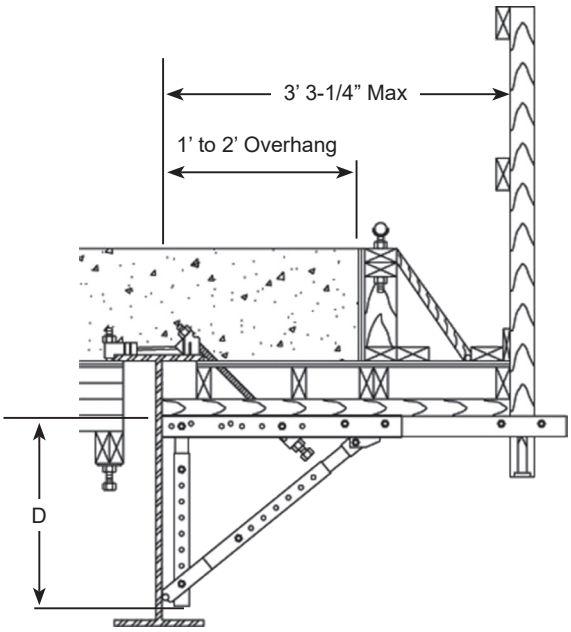
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Junior) for Steel Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	16" to 28"	6'-0"	3'-3"	2'-6"	1'-9"	1'-0"	--	--	--	3,000 to 3,500
			8'-0"	6'-0"	5'-6"	4'-9"	4'-3"	3'-6"	2'-9"	1'-9"	4,500 to 5,000
			8'-0"	8'-0"	8'-0"	8'-0"	7'-3"	6'-6"	5'-9"	5'-0"	6,000
157 psf	8"	16" to 28"	5'-6"	2'-9"	2'-3"	1'-6"	--	--	--	--	3,000 to 3,500
			8'-0"	5'-9"	5'-0"	4'-3"	3'-9"	3'-0"	2'-3"	1'-9"	4,500 to 5,000
			8'-0"	8'-0"	7'-6"	7'-3"	6'-6"	5'-9"	5'-0"	4'-6"	6,000
184 psf	10"	16" to 28"	5'-0"	2'-6"	2'-0"	1'-3"	--	--	--	--	3,000 to 3,500
			7'-6"	5'-0"	4'-6"	4'-0"	3'-3"	2'-9"	2'-0"	1'-6"	4,500 to 5,000
			8'-0"	7'-9"	7'-0"	6'-6"	5'-9"	5'-3"	4'-9"	4'-0"	6,000
210 psf	12"	16" to 28"	4'-6"	2'-3"	1'-9"	1'-3"	--	--	--	--	3,000 to 3,500
			6'-9"	4'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-3"	4,500 to 5,000
			8'-0"	7'-0"	6'-6"	6'-0"	5'-3"	4'-9"	4'-3"	3'-6"	6,000
237 psf	14"	16" to 28"	4'-3"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			6'-9"	4'-3"	3'-9"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	4,500 to 5,000
			8'-0"	6'-3"	5'-9"	5'-3"	4'-9"	4'-3"	3'-9"	3'-3"	6,000
264 psf	16"	16" to 28"	3'-9"	2'-0"	1'-6"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-3"	4,500 to 5,000
			7'-9"	5'-9"	5'-3"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	6,000
290 psf	18"	16" to 28"	3'-6"	1'-9"	1'-3"	1'-0"	--	--	--	--	3,000 to 3,500
			5'-3"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	4,500 to 5,000
			7'-3"	5'-6"	5'-0"	4'-6"	4'-3"	3'-9"	3'-3"	2'-9"	6,000
317 psf	20"	16" to 28"	3'-3"	1'-9"	1'-3"	--	--	--	--	--	3,000 to 3,500
			5'-0"	3'-3"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	1'-0"	4,500 to 5,000
			6'-9"	5'-0"	4'-9"	4'-3"	3'-9"	3'-6"	3'-0"	2'-9"	6,000

Notes:

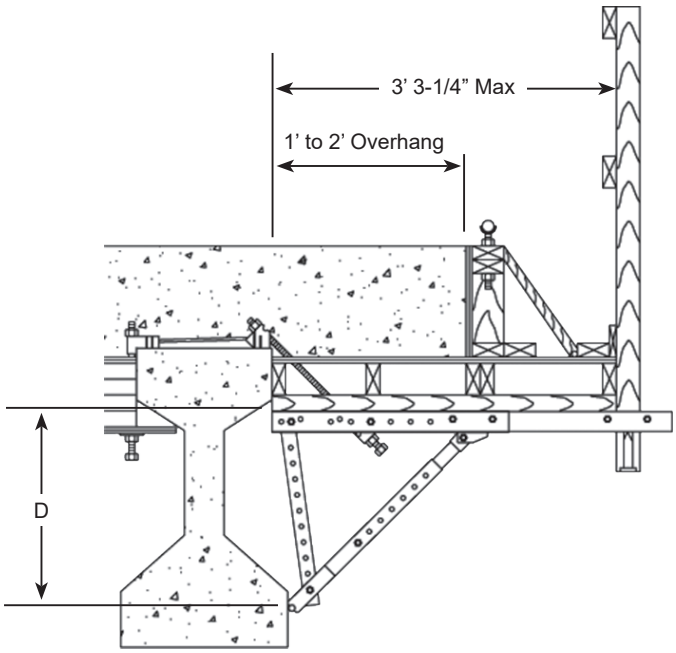
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services Department for assistance in determining applied loads and spacing.



Exterior Hanger Spacing with Bridge Overhang Bracket (Junior) for Precast Concrete Beams with 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							Hanger SWL Range (lbs)
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500	
130 psf	6"	16" to 28"	5'-3"	2'-9"	2'-0"	1'-0"	--	--	--	--	3,000 to 3,500
			7'-9"	5'-3"	4'-9"	4'-0"	3'-6"	2'-6"	1'-6"	--	4,500 to 5,000
			8'-0"	7'-0"	6'-0"	4'-9"	3'-6"	2'-6"	1'-6"	--	6,000
157 psf	8"	16" to 28"	4'-6"	2'-3"	1'-9"	--	--	--	--	--	3,000 to 3,500
			7'-0"	4'-9"	4'-3"	3'-6"	3'-0"	2'-3"	1'-3"	--	4,500 to 5,000
			8'-0"	6'-6"	5'-6"	4'-3"	3'-3"	2'-3"	1'-6"	--	6,000
184 psf	10"	16" to 28"	4'-0"	2'-0"	1'-6"	--	--	--	--	--	3,000 to 3,500
			6'-3"	4'-3"	3'-9"	3'-3"	2'-6"	1'-9"	1'-3"	--	4,500 to 5,000
			8'-0"	6'-0"	5'-0"	4'-0"	3'-0"	2'-3"	1'-3"	--	6,000
210 psf	12"	16" to 28"	3'-9"	2'-0"	1'-3"	--	--	--	--	--	3,000 to 3,500
			5'-6"	3'-9"	3'-3"	3'-0"	2'-3"	1'-9"	1'-0"	--	4,500 to 5,000
			7'-6"	5'-3"	4'-6"	3'-6"	2'-9"	2'-0"	1'-3"	--	6,000
237 psf	14"	16" to 28"	3'-3"	1'-9"	1'-0"	--	--	--	--	--	3,000 to 3,500
			5'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	--	--	4,500 to 5,000
			6'-9"	4'-9"	4'-0"	3'-3"	2'-6"	1'-9"	1'-0"	--	6,000
264 psf	16"	16" to 28"	3'-0"	1'-6"	1'-0"	--	--	--	--	--	3,000 to 3,500
			4'-9"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	4,500 to 5,000
			6'-3"	4'-3"	3'-6"	3'-0"	2'-3"	1'-6"	1'-0"	--	6,000
290 psf	18"	16" to 28"	2'-9"	1'-3"	--	--	--	--	--	--	3,000 to 3,500
			4'-3"	2'-9"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	4,500 to 5,000
			5'-9"	3'-9"	3'-3"	2'-9"	2'-0"	1'-6"	1'-0"	--	6,000
317 psf	20"	16" to 28"	2'-6"	1'-0"	--	--	--	--	--	--	3,000 to 3,500
			4'-0"	2'-6"	2'-0"	1'-9"	1'-3"	1'-0"	--	--	4,500 to 5,000
			5'-3"	3'-6"	3'-0"	2'-6"	1'-9"	1'-3"	--	--	6,000

Notes:

1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services Department for assistance in determining applied loads and spacing.

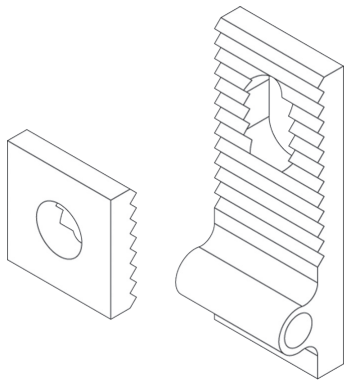


Wall Plate Spacing Tables

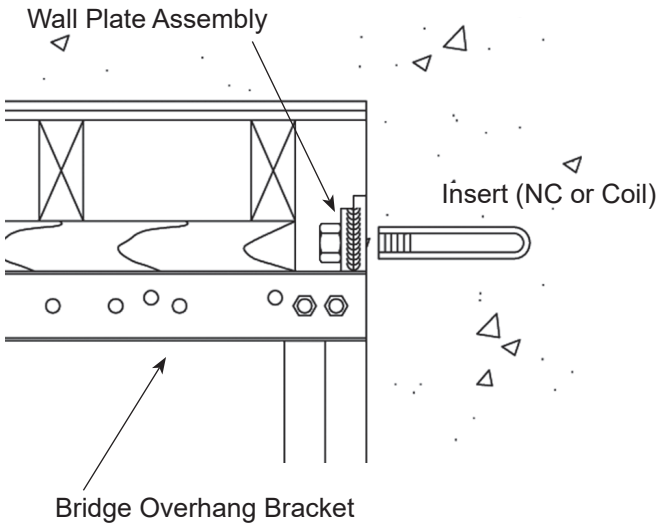
The Wall Plate Assembly is an adjustable attachment plate that is fastened to a 3/4” insert (Coil or NC type) that has been cast into a concrete wall or precast bridge beam. The Bridge Overhang Bracket is then bolted through the sleeve of the Wall Plate Assembly to support the formwork.

The serrated face of the plate and washer provides the height adjustment when fastening the Wall Plate Assembly to the 3/4” insert. Unbolting the Bridge Overhang Bracket from the Wall Plate Assembly, then removing the Wall Plate Assembly, simplifies stripping and removal.

The tables shown on the following pages indicate the maximum Wall Plate and Bridge Overhang Bracket spacing for various slab thicknesses and screed loads, the type of insert and bracket required, and the proper bracket dimensions needed to safely obtain the spacings listed.



Wall Plate Assembly includes plate and washer.

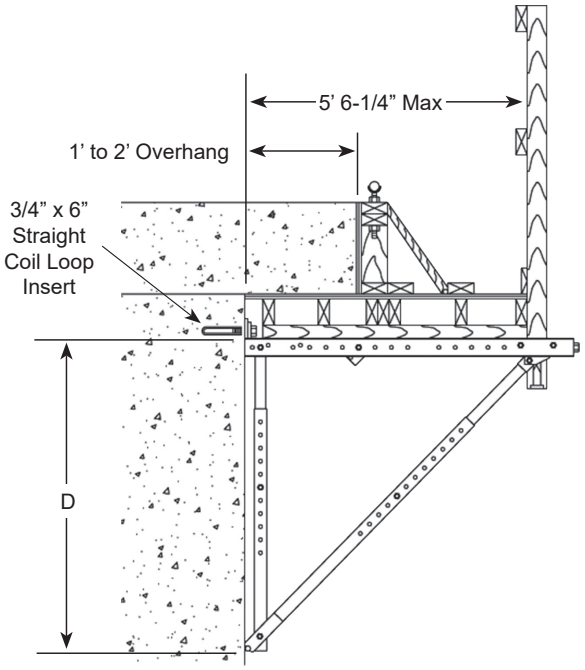


Product specifications subject to change without notice.

Wall Plate Assembly Spacing with Bridge Overhang Bracket (Standard and Deep) for Concrete Walls with 3/4"x6" Coil Loop Insert and 1'-0" to 2'-0" Overhang									
Design Load	Slab	D	Screed Load per Bracket (lbs)						
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500
130 psf	6"	30" to 70"	8'-0"	7'-0"	6'-3"	5'-9"	5'-0"	4'-6"	4'-0"	3'-0"
157 psf	8"	30" to 70"	8'-0"	6'-3"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	2'-9"
184 psf	10"	30" to 70"	7'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	2'-6"
210 psf	12"	30" to 70"	6'-9"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"
237 psf	14"	30" to 70"	6'-0"	4'-3"	4'-0"	3'-6"	3'-3"	2'-9"	2'-3"	2'-0"
264 psf	16"	30" to 70"	5'-6"	4'-0"	3'-6"	3'-3"	2'-9"	2'-6"	2'-3"	1'-9"
290 psf	18"	30" to 70"	5'-0"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	1'-6"
317 psf	20"	30" to 70"	4'-6"	3'-3"	3'-0"	2'-9"	2'-6"	2'-0"	1'-9"	1'-6"

Notes:

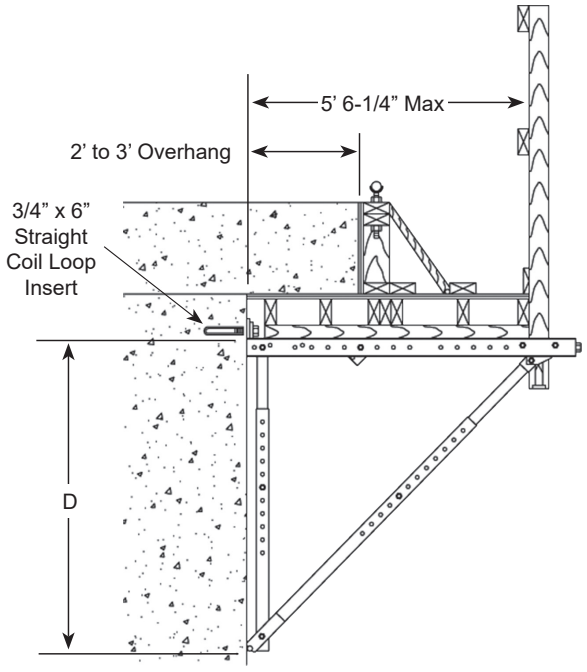
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Wall Plate Assembly Spacing with Bridge Overhang Bracket (Standard and Deep) for Concrete Walls with 3/4"x6" Coil Loop Insert and 2'-0" to 3'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500
130 psf	6"	30"	5'-6"	2'-9"	2'-0"	1'-3"	--	--	--	--
		40"	6'-9"	4'-6"	4'-0"	3'-3"	2'-9"	2'-3"	1'-6"	1'-0"
		50" to 70"	6'-9"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"
157 psf	8"	30"	5'-0"	2'-6"	2'-0"	1'-3"	--	--	--	--
		40"	5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"
		50" to 70"	5'-9"	4'-3"	4'-0"	3'-6"	3'-3"	2'-9"	2'-3"	1'-9"
184 psf	10"	30"	4'-6"	2'-3"	1'-9"	1'-0"	--	--	--	--
		40"	5'-3"	3'-9"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	--
		50" to 70"	5'-3"	3'-9"	3'-6"	3'-3"	2'-9"	2'-6"	2'-0"	1'-6"
210 psf	12"	30"	4'-0"	2'-0"	1'-6"	1'-0"	--	--	--	--
		40"	4'-9"	3'-3"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	--
		50" to 70"	4'-9"	3'-6"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	1'-6"
237 psf	14"	30"	3'-9"	1'-9"	1'-3"	--	--	--	--	--
		40"	4'-3"	3'-0"	2'-9"	2'-3"	2'-0"	1'-6"	1'-0"	--
		50" to 70"	4'-3"	3'-3"	3'-0"	2'-6"	2'-3"	2'-0"	1'-9"	1'-3"
264 psf	16"	30"	3'-3"	1'-6"	1'-3"	--	--	--	--	--
		40"	4'-0"	2'-9"	2'-6"	2'-3"	1'-9"	1'-6"	1'-0"	--
		50" to 70"	4'-0"	3'-0"	2'-9"	2'-6"	2'-3"	2'-0"	1'-6"	1'-3"
290 psf	18"	30"	2'-9"	1'-3"	1'-0"	--	--	--	--	--
		40"	3'-6"	2'-6"	2'-3"	2'-0"	1'-9"	1'-3"	1'-0"	--
		50" to 70"	3'-6"	2'-9"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"
317 psf	20"	30"	2'-6"	1'-3"	1'-0"	--	--	--	--	--
		40"	3'-3"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	--	--
		50" to 70"	3'-3"	2'-6"	2'-3"	2'-0"	1'-9"	1'-6"	1'-3"	1'-0"

Notes:

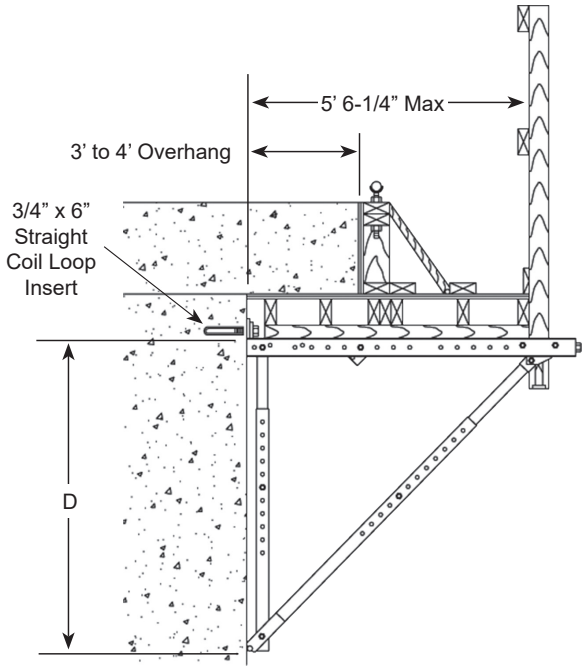
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Wall Plate Assembly Spacing with Bridge Overhang Bracket (Standard and Deep) for Concrete Walls with 3/4"x6" Coil Loop Insert and 3'-0" to 4'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500
130 psf	6"	30"	4'-0"	1'-0"	--	--	--	--	--	--
		40"	5'-6"	3'-0"	2'-6"	1'-9"	1'-3"	--	--	--
		50" to 70"	5'-9"	3'-9"	3'-3"	2'-6"	2'-0"	1'-3"	--	--
157 psf	8"	30"	3'-6"	--	--	--	--	--	--	--
		40"	4'-9"	2'-9"	2'-0"	1'-6"	1'-0"	--	--	--
		50" to 70"	5'-0"	3'-3"	2'-9"	2'-3"	1'-9"	1'-3"	--	--
184 psf	10"	30"	3'-3"	--	--	--	--	--	--	--
		40"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--
		50" to 70"	4'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	--	--
210 psf	12"	30"	2'-9"	--	--	--	--	--	--	--
		40"	3'-9"	2'-0"	1'-9"	1'-3"	--	--	--	--
		50" to 70"	4'-0"	2'-9"	2'-3"	1'-9"	1'-3"	1'-0"	--	--
237 psf	14"	30"	2'-6"	--	--	--	--	--	--	--
		40"	3'-6"	2'-0"	1'-6"	1'-0"	--	--	--	--
		50" to 70"	3'-6"	2'-6"	2'-0"	1'-6"	1'-3"	--	--	--
264 psf	16"	30"	2'-3"	--	--	--	--	--	--	--
		40"	3'-0"	1'-9"	1'-3"	1'-0"	--	--	--	--
		50" to 70"	3'-3"	2'-3"	1'-9"	1'-6"	1'-0"	--	--	--
290 psf	18"	30"	2'-0"	--	--	--	--	--	--	--
		40"	2'-9"	1'-6"	1'-3"	--	--	--	--	--
		50" to 70"	3'-0"	2'-0"	1'-9"	1'-3"	1'-0"	--	--	--
317 psf	20"	30"	1'-9"	--	--	--	--	--	--	--
		40"	2'-6"	1'-6"	1'-0"	--	--	--	--	--
		50" to 70"	2'-9"	1'-9"	1'-6"	1'-3"	1'-0"	--	--	--

Notes:

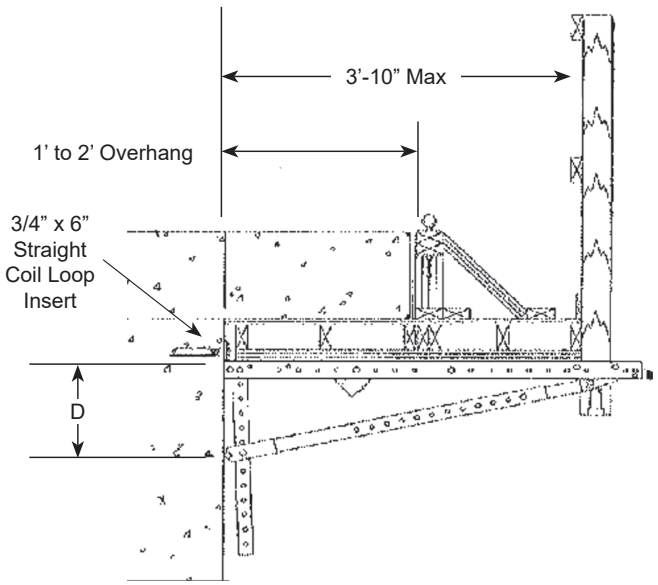
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Wall Plate Assembly Spacing with Bridge Overhang Bracket (Modified) for Concrete Walls with 3/4"x6" Coil Loop Insert and 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500
130 psf	6"	14"	3'-6"	--	--	--	--	--	--	--
		20"	6'-9"	3'-0"	2'-0"	1'-3"	--	--	--	--
		26"	8'-0"	6'-3"	5'-6"	5'-0"	4'-3"	3'-6"	2'-9"	1'-9"
157 psf	8"	14"	3'-3"	--	--	--	--	--	--	--
		20"	6'-0"	2'-9"	1'-9"	1'-0"	--	--	--	--
		26"	8'-0"	5'-6"	5'-0"	4'-3"	3'-9"	3'-3"	2'-6"	1'-6"
184 psf	10"	14"	2'-9"	--	--	--	--	--	--	--
		20"	5'-3"	2'-3"	1'-6"	1'-0"	--	--	--	--
		26"	7'-0"	5'-0"	4'-6"	4'-0"	3'-6"	2'-9"	2'-0"	1'-3"
210 psf	12"	14"	2'-6"	--	--	--	--	--	--	--
		20"	4'-6"	2'-0"	1'-6"	--	--	--	--	--
		26"	6'-3"	4'-6"	4'-0"	3'-6"	3'-0"	2'-3"	1'-9"	1'-0"
237 psf	14"	14"	2'-3"	--	--	--	--	--	--	--
		20"	4'-0"	1'-9"	1'-3"	--	--	--	--	--
		26"	5'-9"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"
264 psf	16"	14"	2'-0"	--	--	--	--	--	--	--
		20"	3'-6"	1'-6"	1'-0"	--	--	--	--	--
		26"	5'-3"	3'-6"	3'-0"	2'-6"	2'-0"	1'-9"	1'-3"	--
290 psf	18"	14"	1'-9"	--	--	--	--	--	--	--
		20"	3'-0"	1'-3"	--	--	--	--	--	--
		26"	4'-6"	3'-0"	2'-6"	2'-3"	1'-9"	1'-3"	--	--
317 psf	20"	14"	1'-6"	--	--	--	--	--	--	--
		20"	2'-6"	1'-0"	--		--	--	--	--
		26"	3'-9"	2'-6"	2'-3"	1'-9"	1'-0"	1'-3"	--	--

Notes:

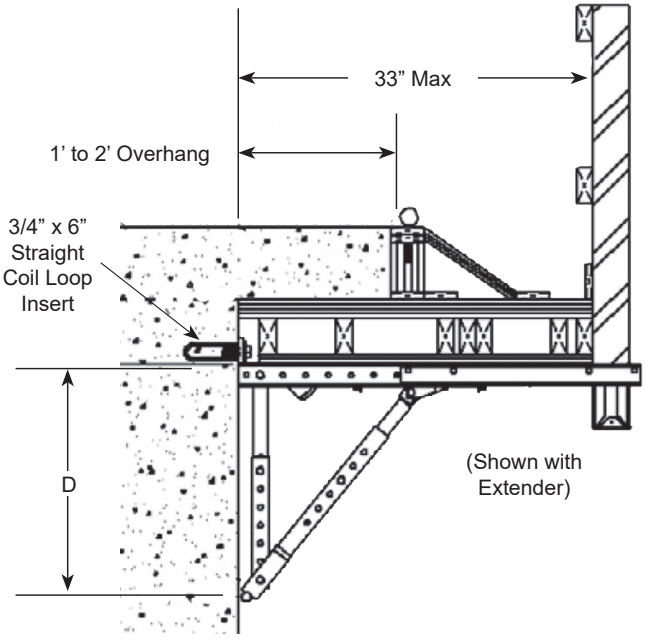
1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Wall Plate Assembly Spacing with Bridge Overhang Bracket (Junior) for Concrete Walls with 3/4"x6" Coil Loop Insert and 1'-0" to 2'-0" Overhang										
Design Load	Slab	D	Screed Load per Bracket (lbs)							
			0	1,000	1,250	1,500	1,750	2,000	2,250	2,500
130 psf	6"	16"	5'-0"	1'-0"	--	--	--	--	--	--
		22"	7'-6"	4'-0"	3'-0"	2'-3"	1'-3"	--	--	--
		28"	8'-0"	4'-9"	4'-0"	3'-0"	2'-3"	1'-3"	--	--
157 psf	8"	16"	4'-6"	1'-0"	--	--	--	--	--	--
		22"	6'-9"	3'-6"	2'-9"	2'-0"	1'-3"	--	--	--
		28"	7'-6"	4'-6"	3'-6"	2'-9"	2'-0"	1'-3"	--	--
184 psf	10"	16"	4'-0"	--	--	--	--	--	--	--
		22"	6'-0"	3'-3"	2'-6"	1'-9"	1'-0"	--	--	--
		28"	6'-9"	4'-0"	3'-3"	2'-6"	1'-9"	1'-0"	--	--
210 psf	12"	16"	3'-6"	--	--	--	--	--	--	--
		22"	5'-6"	3'-0"	2'-9"	1'-6"	1'-0"	--	--	--
		28"	6'-3"	3'-6"	3'-0"	2'-3"	1'-9"	1'-0"	--	--
237 psf	14"	16"	3'-0"	--	--	--	--	--	--	--
		22"	5'-0"	2'-9"	2'-0"	1'-6"	--	--	--	--
		28"	5'-9"	3'-3"	2'-9"	2'-0"	1'-6"	1'-0"	--	--
264 psf	16"	16"	2'-6"	--	--	--	--	--	--	--
		22"	4'-3"	2'-3"	1'-9"	1'-3"	--	--	--	--
		28"	5'-0"	3'-0"	2'-6"	1'-9"	1'-3"	--	--	--
290 psf	18"	16"	2'-3"	--	--	--	--	--	--	--
		22"	3'-6"	2'-0"	1'-6"	1'-0"	--	--	--	--
		28"	4'-9"	2'-9"	2'-3"	1'-9"	1'-3"	--	--	--
317 psf	20"	16"	2'-0"	--	--	--	--	--	--	--
		22"	3'-0"	1'-6"	1'-3"		--	--	--	--
		28"	4'-3"	2'-6"	2'-0"	1'-6"	1'-0"	--	--	--

Notes:

1. Design load calculations include 160 pcf for concrete and formwork, plus 50 psf for workers, equipment and materials, plus 50 psf for walkway area, plus 75 plf for outside edge of overhang.
2. Always confirm that overhang form lumber completely spans the selected spacing.
3. Contact SureBuilt Technical Services for assistance in determining applied loads and spacing.



Joist Spacing Chart

The spacing of the joists supporting the plywood formwork, is a function of the type and thickness of plywood. The number of joists supporting each piece of plywood and the direction of the plywood face grain in relation to the joists, determines the center-to-center joist spacing.

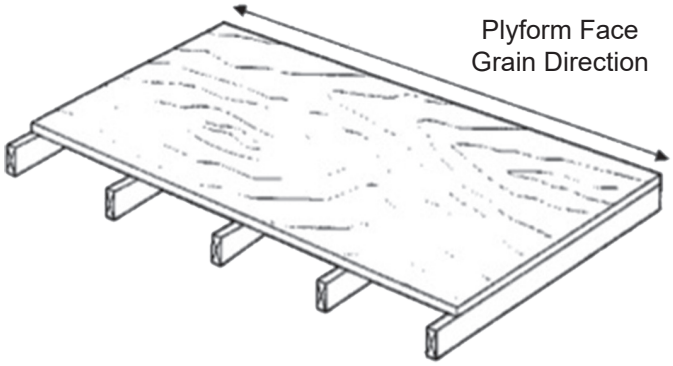
Joist centers have been calculated using standard engineering principles that determine the maximum joist spacing based on plywood bending, deflection and rolling shear (in the plane of the plywood plies). Once the centers have been calculated, the safe joist spacing is arranged in tables.

For concrete formwork, virtually any exterior plywood can be used, as all exterior plywood is produced using waterproof glue. However, the plywood industry produces special plywood called Plyform®, created especially for use as concrete formwork. *(Plyform is a proprietary product name and is used for specific products, which bear the trademark of the APA – The Engineered Wood Association.)*

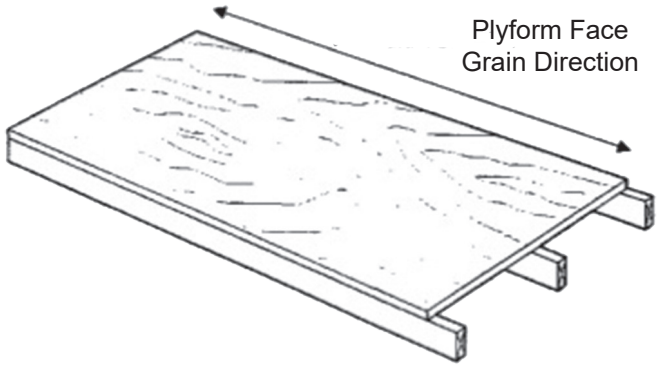
The section properties and allowable stresses shown below, were used to develop the safe joist spacing charts using information taken from the Concrete Forming Design/Construction Guide (2004) published by the APA – The Engineered Wood Association.

- Modulus of elasticity = E = 1,430,000 psi
- Allowable bending stress = F_b = 1,330 psi
- Allowable rolling shear stress = F_s = 72 psi

The spacing listed in the charts may be followed when using Plyform Class I, Class II or Structural I or equivalent plywood. For additional information on plywood contact APA - The Engineered Wood Association.

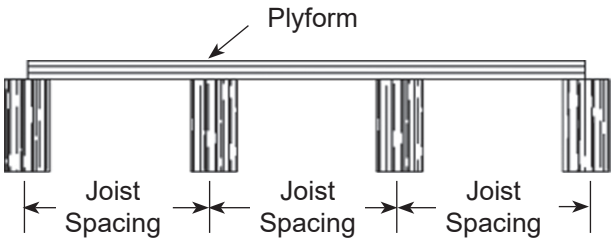


Plyform Used in Strong Direction
(Face Grains Runs Perpendicular to Joists)

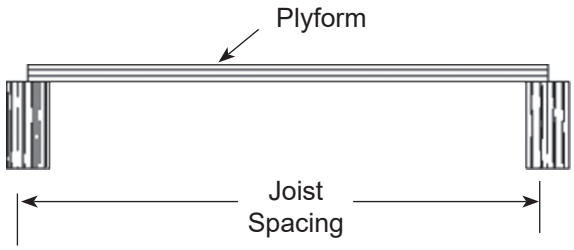


Plyform Used in Weak Direction
(Face Grain Runs Parallel with Joists)

Determine concrete thickness, the desired face grain direction and plyform thickness. The maximum safe joist centers will be where the “Concrete Thickness” row intersects with the “Plyform Thickness” column. A plyform section will bend and deflect less when supported by 4 or more joists than rather than 2 or 3 joists.



Plyform Supported by 4 or more Joists



Plyform Supported by 2 or 3 Joists

Joist Spacing for Plyform Supported by 4 or more Joists*							
Concrete Thickness	Design Load	Face Grain Perpendicular to Joists (Strong Direction)			Face Grain Parallel with Joists (Weak Direction)		
		5/8”	23/32”	3/4”	5/8”	23/32”	3/4”
6”	130.0 psf	19”	21”	22”	14”	15”	17”
8”	156.7 psf	18”	20”	20”	13”	14”	16”
10”	183.3 psf	17”	19”	19”	12”	14”	15”
12”	210.0 psf	16”	18”	18”	11”	13”	14”
14”	236.7 psf	15”	17”	17”	11”	13”	14”
16”	263.3 psf	14”	16”	16”	10”	12”	13”
18”	290.0 psf	14”	15”	16”	10”	11”	13”
20”	316.7 psf	13”	14”	15”	9”	11”	12”

** Deflection is limited to 1/360 of span but no more than 1/16”.*

Joist Spacing for Plyform Supported by 2 or 3 Joists*							
Concrete Thickness	Design Load	Face Grain Runs Perpendicular to Joists (Strong Direction)			Face Grain Runs Parallel with Joists (Weak Direction)		
		5/8”	23/32”	3/4”	5/8”	23/32”	3/4”
6”	130.0 psf	15”	17”	18”	13”	12”	14”
8”	156.7 psf	14”	16”	16”	12”	12”	13”
10”	183.3 psf	14”	15”	16”	11”	11”	12”
12”	210.0 psf	13”	14”	15”	10”	11”	11”
14”	236.7 psf	12”	14”	14”	9”	10”	11”
16”	263.3 psf	12”	13”	14”	9”	10”	11”
18”	290.0 psf	12”	13”	13”	9”	9”	10”
20”	316.7 psf	11”	13’	13”	8”	9”	10”

** Deflection is limited to 1/360 of span but no more than 1/16”.*

Ledger Spacing Chart

The center-to-center spacing of ledgers used to support joists, is a function of the species, grade and size of joist lumber selected for use, as well as the joist centers and number of ledgers used in supporting each length of joist.

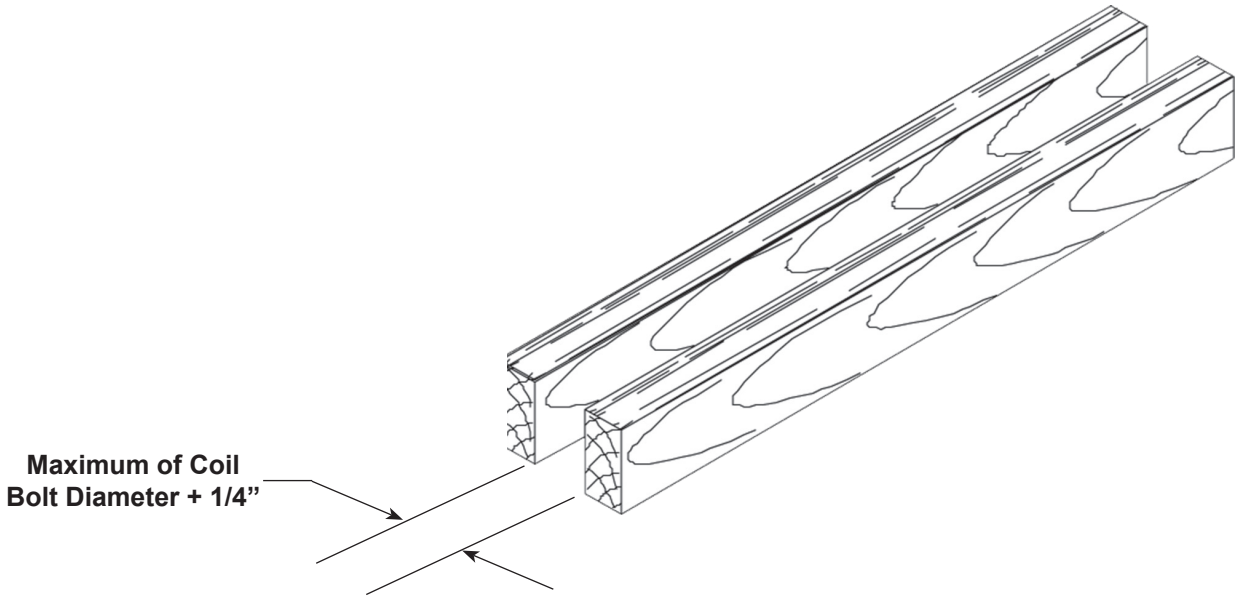
Nominal lumber sizes are used in the joist and ledger descriptions, but calculations are based on lumber finished on all four sides (S4S). Ledger centers are calculated by checking bending, deflection and horizontal shear. Once the ledger centers are determined, the joist centers and ledger spacing are arranged in tables.

The adjusted stresses are used in all joist and ledger calculations and are based on the use of Southern Pine, Grade #2 or equivalent strength lumber:

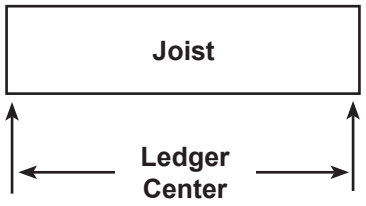
- E = Modulus of elasticity = 1,400,000 psi
- F_b = Allowable bending stress varies with size of joist and ledgers = 1,625 psi for 2x4, 1,440 psi for 2x6, 1,310 psi for 2x8, 1,192 psi for 2x10, 1,083 psi for 2x12, 1,790 psi for 4x2, 1,625 psi for 4x4 and 1,650 psi for 6x2.
- F_s = Allowable shear stress = 225 psi (which assumes no splits or shakes in the lumber).

This data is taken from the ANSI/AF&PA NDS-2005 National Design Specification for Wood Construction (NDS) its Commentary and Supplement: Design Values for Wood Construction. This design information is available from American Forest & Paper Association.

The maximum spacing between double ledgers should no more than 1/4” greater than the nominal diameter of the coil bolt or coil rod being used. When more space is allowed between the ledgers, the ledgers may crush or the flat washers may deflect/bend causing the formwork to fail.



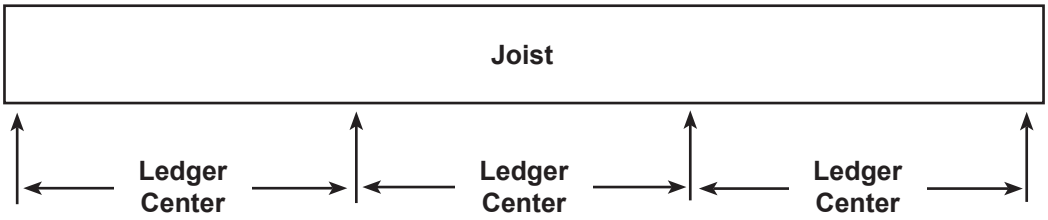
Determine joist centers, concrete thickness and joist size. The maximum safe ledger spacing is where the "Concrete Thickness" row intersects with the "Joist Size" column. Ledgers spaced greater than 96" on center are not recommended because of the reduction in formwork redundancy that may occur.



Maximum Ledger Center* - Single Span Joist							
Joist Centers	**Concrete Thickness**	**2x4 Joist**	**2x6 Joist**	**2x8 Joist**	**4x2 Joist**	**4x4 Joist**	**6x2 Joist**
9-5/8"	6"	63"	90"	110"	36"	79"	42"
	8"	59"	86"	105"	34"	75"	39"
	10"	56'	80"	101"	32"	72"	37"
	12"	53"	75"	98"	30"	70"	35"
	14"	50"	71"	93"	29"	69"	34"
	16"	48"	67"	89"	28"	66"	33"
	18"	45"	64"	84"	27"	64"	32"
	20"	43"	61"	81"	26"	62"	31"
12"	6"	58"	85"	104"	33"	75"	39"
	8"	56"	78"	100"	31"	71"	36"
	10"	51"	73"	95"	30"	69"	34"
	12"	48"	67"	89"	28"	66"	33"
	14"	45"	63"	84"	27"	63"	32"
	16"	43"	60"	79"	26"	61"	30"
	18"	41"	57"	76"	25"	59"	29"
	20"	39"	55"	72"	24"	58"	28"
16"	6"	53"	74"	97"	30"	70"	27"
	8"	48"	67"	89"	28"	66"	26"
	10"	44"	62"	82"	27"	63"	25"
	12"	41"	58"	77"	26"	60"	31"
	14"	39"	55"	72"	25"	58"	29"
	16"	37"	52"	69"	24"	56"	27"
	18"	35"	50"	65"	23"	54"	26"
	20"	34"	47"	63"	22"	51"	25"
24"	6"	43"	60"	80"	26"	61"	31"
	8"	39"	55"	73"	25"	58"	29"
	10"	36"	51"	67"	23"	55"	27"
	12"	34"	48"	63"	22"	52"	26"
	14"	32"	45"	59"	21"	49"	25"
	16"	30"	43"	56"	20"	46"	24"
	18"	29"	41"	53"	19"	44"	23"
	20"	27"	39"	51"	18"	42"	22"

** Maximum deflection is clear span / 270 or no more than 1/4"*

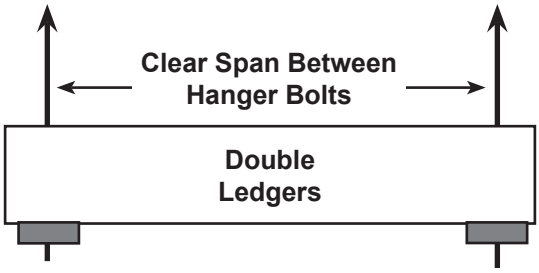
Determine joist centers, concrete thickness and joist size. The maximum safe ledger spacing is where the "Concrete Thickness" row intersects with the "Joist Size" column. Ledgers spaced greater than 96" on center are not recommended because of the reduction in formwork redundancy that may occur.



Maximum Ledger Center* - Three or More Span Joist							
Joist Centers	**Concrete Thickness**	**2x4 Joist**	**2x6 Joist**	**2x8 Joist**	**4x2 Joist**	**4x4 Joist**	**6x2 Joist**
9-5/8"	6"	75"	105"	129"	44"	93"	51"
	8"	59"	86"	105"	34"	75"	39"
	10"	56"	82"	101"	32"	72"	37"
	12"	53"	79"	98"	30"	70"	35"
	14"	50"	74"	93"	29"	68"	34"
	16"	48"	70"	88"	28"	66"	33"
	18"	45"	67"	84"	27"	64"	32"
	20"	43"	64"	81"	26"	62"	31"
12"	6"	68"	99"	79"	41"	88"	46"
	8"	55"	81"	76"	31"	71"	36"
	10"	51"	76"	72"	30"	69"	34"
	12"	48"	71"	109"	28"	66"	33"
	14"	45"	66"	89"	27"	63"	32"
	16"	43"	63"	82"	26"	61"	30"
	18"	41"	60"	77"	25"	59"	29"
	20"	39"	57"	72"	24"	58"	28"
16"	6"	59"	87"	109"	37"	81"	43"
	8"	48"	71"	89"	28"	66"	33"
	10"	44"	65"	82"	27"	63"	31"
	12"	41"	61"	77"	26"	60"	30"
	14"	39"	58"	72"	25"	58"	29"
	16"	37"	55"	69"	24"	56"	28"
	18"	35"	52"	65"	23"	54"	27"
	20"	34"	50"	63"	22"	51"	26"
24"	6"	45"	71"	89"	32"	73"	37"
	8"	39"	58"	73"	25"	58"	29"
	10"	36"	53"	67"	23"	55"	27"
	12"	34"	50"	63"	22"	52"	26"
	14"	32"	47"	59"	21"	49"	25"
	16"	30"	45"	56"	20"	46"	23"
	18"	29"	42"	53"	19"	44"	22"
	20"	27"	41"	51"	18"	42"	21"

** Maximum deflection is clear span / 270 or no more than 1/4"*

Determine ledger centers, concrete thickness and ledger size. The maximum safe hanger bolt spacing is where the “Concrete Thickness” row intersects with the “Ledger Size” column.



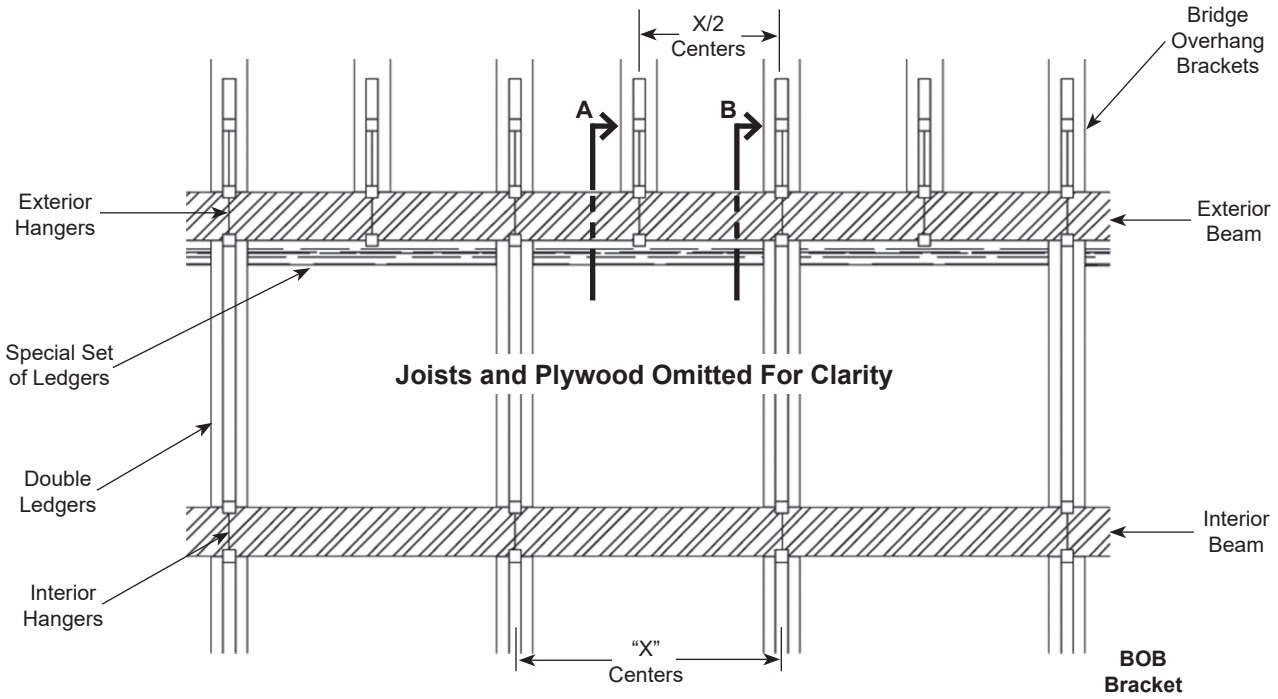
Maximum Ledger Center* - Hanger Bolt						
Ledger Centers	**Concrete Thickness**	**Double 2x4 Ledger**	**Double 2x6 Ledger**	**Double 2x8 Ledger**	**Double 2x10 Ledger**	**Double 2x12 Ledger**
24”	6”	58”	85”	104”	125”	145”
	8”	55”	81”	100”	120”	133”
	10”	51”	76”	95”	115”	133”
	12”	48”	71”	89”	108”	125”
	14”	45”	66”	84”	102”	118”
	16”	43”	63”	79”	96”	112”
	18”	41”	60”	76”	92”	107”
	20”	39”	57”	72”	88”	102”
27-3/8”	6”	56”	82”	101”	121”	140”
	8”	52”	77”	96”	116”	134”
	10”	48”	71”	89”	108”	125”
	12”	45”	66”	83”	101”	117”
	14”	42”	62”	78”	95”	110”
	16”	40”	59”	74”	90”	105”
	18”	38”	56”	71”	86”	100”
	20”	36”	54”	68”	82”	95”
32”	6”	53”	78”	97”	117”	135”
	8”	48”	71”	89”	108”	126”
	10”	44”	65”	82”	100”	116”
	12”	41”	61”	77”	94”	108”
	14”	39”	58”	72”	88”	102”
	16”	37”	55”	69”	84”	97”
	18”	35”	52”	65”	80”	92”
	20”	34”	50”	63”	76”	88”
38-3/8”	6”	48”	71”	89”	109”	126”
	8”	44”	65”	81”	99”	115”
	10”	40”	60”	75”	91”	106”
	12”	38”	56”	70”	85”	99”
	14”	36”	53”	66”	80”	93”
	16”	34”	50”	63”	76”	88”
	18”	32”	47”	60”	73”	84”
	20”	31”	45”	57”	70”	81”

** Maximum deflection is clear span / 270 or no more than 1/4”*

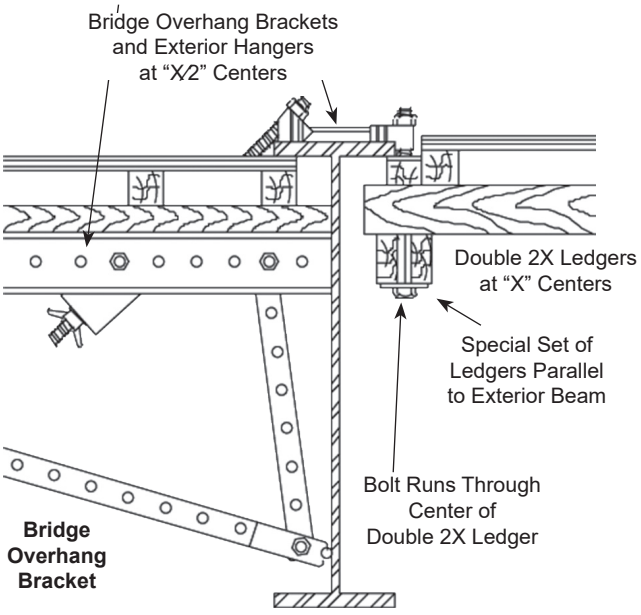
Maximum Ledger Center* - Hanger Bolt						
Ledger Centers	**Concrete Thickness**	**Double 2x4 Ledger**	**Double 2x6 Ledger**	**Double 2x8 Ledger**	**Double 2x10 Ledger**	**Double 2x12 Ledger**
48”	6”	43”	63”	80”	97”	113”
	8”	39”	58”	73”	88”	102”
	10”	36”	53”	67”	82”	95”
	12”	34”	50”	63”	76”	89”
	14”	32”	47”	59”	72”	83”
	16”	30”	45”	56”	68”	79”
	18”	29”	42”	53”	65”	75”
	20”	27”	41”	51”	62”	72”
64”	6”	37”	55”	69”	84”	97”
	8”	34”	50”	63”	77”	89”
	10”	31”	46”	58”	71”	82”
	12”	29”	43”	54”	66”	77”
	14”	28”	41”	51”	62”	72”
	16”	26”	39”	49”	59”	68”
	18”	25”	37”	46”	56”	65”
	20”	24”	35”	44”	54”	62”
96”	6”	30”	45”	56”	69”	80”
	8”	28”	41”	51”	63”	72”
	10”	26”	38”	47”	58”	67”
	12”	24”	35”	44”	54”	63”
	14”	22”	33”	42”	51”	59”
	16”	21”	32”	40”	48”	56”
	18”	20”	30”	38”	46”	53”
	20”	19”	29”	36”	44”	51”

** Maximum deflection is clear span / 270 or no more than 1/4”*

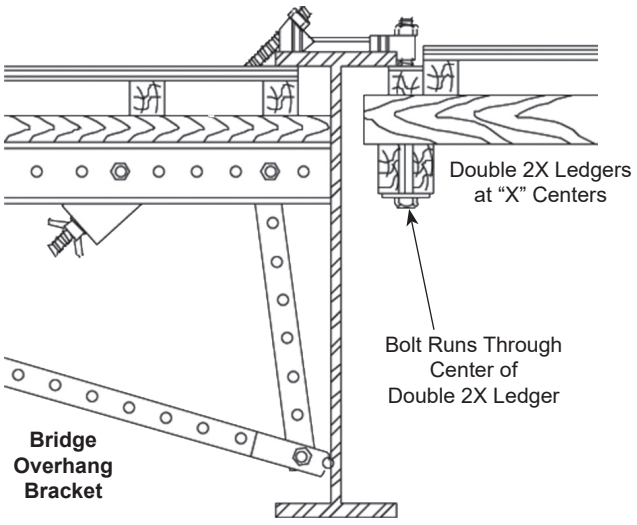
Different Interior/Exterior Hanger Spacing



Partial Plan View



Section View – "A



Section View – "B"

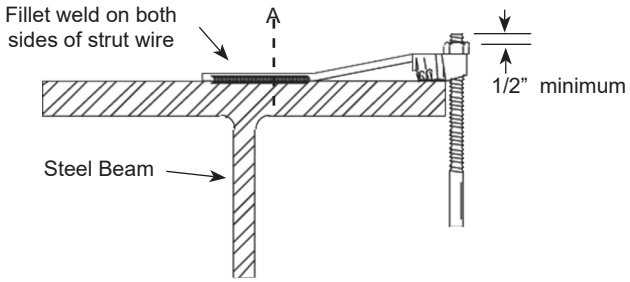
Welding Half Hangers

Half Hangers may be welded to steel beams or rebar stirrups, but preheating or other procedures may be required for a sound weld. Contact a welding supply dealer to determine the required welding procedures.

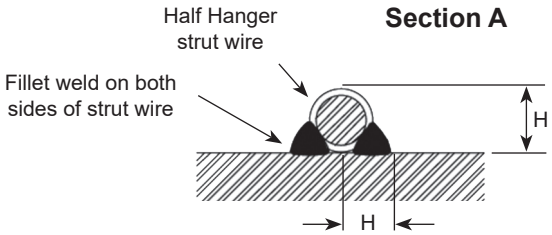
Warning: Welding may alter the strut or rebar stirrup. Use the tables as a guide to determining the approximate strength of the welded connection. Field tests should be performed to determine the actual safe working load for each welded hanger condition.

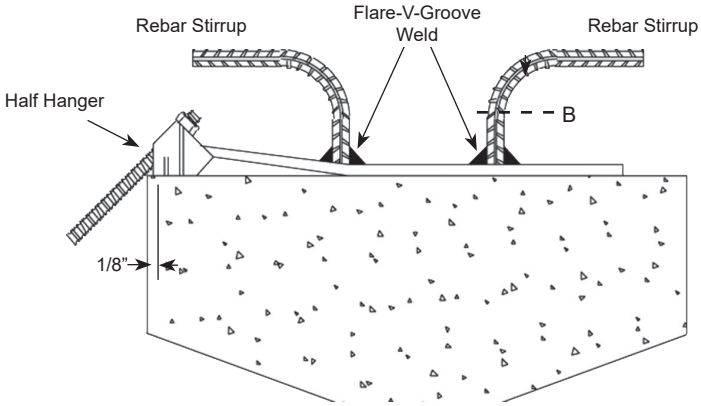
Fillet Weld Size H	Safe Working Load (SWL) Per Linear Inch of Weld
1/8”	1,500 lbs
3/16”	2,300 lbs
1/4”	3,100 lbs
5/16”	3,900 lbs
3/8”	4,700 lbs
7/16”	5,500 lbs

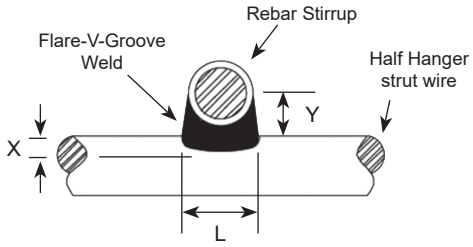
Note: *Place half the required length of weld on each side of the strut wire. Minimum length of weld is 4h. The user should add 1⁄4” to the weld length for starting and stopping the arc. SWL provides a factor of safety of approximately 2 to 1.*



Section A







Section B

Safe Working Load (SWL) per Weld						
Rebar Size	L Weld Length	Y Min	.375” Dia Strut (x=3/16” Min)		.440” Dia Strut (x=7/32” Min)	
			Grade 40 Stirrup	Grade 60 Stirrup	Grade 40 Stirrup	Grade 60 Stirrup
#4	1/2”	1/4”	1,350 lbs	1,800 lbs	1,600 lbs	2,100 lbs
#5	5/8”	5/16”	1,700 lbs	2,200 lbs	2,000 lbs	2,600 lbs
#6	3/4”	3/8”	2,050 lbs	2,650 lbs	2,400 lbs	3,100 lbs

Note: *Values are based on the use of E70 series electrodes for welding to Grade 40 stirrups and E90 series Electrodes for Grade 60 stirrups. SWL provides a factor of safety of approximately 2 to 1.*

Bar Support – Wire slab bolsters and high chairs, with optional epoxy-coat, plastic-dip, plastic-tip or plate, to meet almost any slab requirement.

Bridge Deck – Overhang brackets and hangers provide an efficient deck forming solution for precast concrete or steel I-beam bridge structures.

Coil Ties – 2-Strut and 4-Strut designs, in standard and heavy-duty capacities, with optional cones, waterseals or custom combination, for job-built forming.

Dowels – Plates, sleeves, baskets and joint nosings for high-performance concrete floors.

Euro Rod – 15mm and 20mm taper ties, she-bolts, inner ties, washers and wing nuts compatible with European-brand forming systems.

Metal Rib – Leave-in-place, expanded galvanized mesh to form footings, bulkheads, grade beams, pier caps and blindside walls.

Pipe Braces – Contractor-preferred braces, with rated capacities and lengths ranging from 7'6" to 62'6", for almost any forming application.

Precast – Inserts, anchors, connectors and lifting systems for efficient precast concrete production.

Self-Riser – Integrated hydraulic system for multi-story building cores that virtually eliminates crane time.

Shoring – A conventional 12K load/leg system, with base plates, cross braces, screw jacks and U-heads, for productive deck support.

Snap Ties – Ties and brackets, with ¾" plywood and 2x4 lumber, create a simple and effective plywood forming system.

Staybox – A pre-engineered and pre-assembled rebar keyway that simplifies forming at wall and deck intersections.

Stud Rail – A reinforced column-to-deck connection that reduces shearing, transfers load further into the slab and eliminates column capitals.

SureCurve™ RC – Concrete tanks and curved walls quickly take shape with this flexible gangform system.

SurePly™ – An industry-recognized handset system, with more than 80 standard panel and filler sizes, for almost any forming application.

Tilt-Up – A start-to-finish system of lifting inserts, plates and hardware for tilt-up panel construction.

Walers – Double channel walers align panels, carry taper tie loads and maximize the surface area of almost any gang.

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