Experience







the Hi-Lite Advantage

HI-LITE
ALUMINUM CONCRETE SUPPORT SYSTEMS

Aluminum is the leading edge material for concrete forming and concrete shoring products today.

Hi-Lite innovation is why.

Hi-Lite was formed in 1952 as Jackson Scaffolding. In 1974, Hi-Lite designed the first aluminum shoring system, thereby capturing the allegiance of project managers in North America and Europe.

Now, those same aluminum innovations are used in over thirty countries around the world.

Experience the Hi-Lite Advantage.

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About Hi-Lite Systems

The original designer and manufacturer of aluminum shoring frames, Hi-Lite has been an innovator and world leader in the shoring and forming industry for over fifty years. Hi-Lite products are designed to help contractors reduce costs and increase productivity:

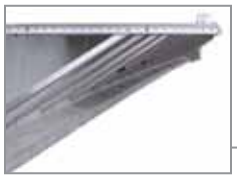
- Ease of use and lightweight aluminum allow one worker to do more in less time.
- Designed to adapt to almost any condition to get the job done faster.
- Virtually maintenance free. They do not rust and never require painting.
- Extremely resistant to onsite damage, which increases their service life.
- Less inventory required results in lower storage, handling, and transportation costs.

12KIP Aluminum Shoring Frames

Almost any condition can be mastered with Hi-Lite's 12KIP Aluminum Shoring Frames using combinations of screw jacks, base plates and extension tubes. The adjustability of the system is your assurance that the project will proceed on schedule.

16/25KIP Aluminum Modular Shoring Frames

Hi-Lite 16/25KIP Modular Shoring Frames are designed for maximum adaptability in almost any condition. The Aluminum Modular Shoring Frame, an innovation we designed over thirty years ago, is now an industry standard all over the world.



Aluminum Telescopic Fly Forms

The Hi-Lite Aluminum Telescopic Fly Form System comes in 3 styles, allowing contractors to build floors faster and significantly reduce crane time. It's setting new standards for multiple story construction in the international marketplace.

Aluminum Overhang Bridge Brackets

With innovative features such as an adjustment rod that can be easily and safely turned from above without going underneath, and with the same load capacity at half the weight of steel, the Hi-Lite Bridge Overhang Bracket System reduces installation time and increases worker safety.

Aluminum Beams and Stringers

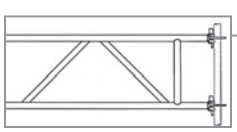
Significant labour and material savings are being achieved by contractors using Hi-Lite Aluminum Beams and Stringers. The reduced weight of each beam and ease of handling minimizes worker fatigue and results in higher worker efficiency and lower costs.

16/25KIP Aluminum Post Shores

Hi-Lite Aluminum Post Shores are engineered for quick and easy handling and can be easily converted to shoring frames and back with demountable ledgers. Components can be fastened in all four directions anywhere along the length of the post.

Auminum Beam Concrete Wall Forms

Contractors choose Hi-Lite Aluminum Wall Forms over steel and wood to reduce cost and increase productivity. Even the heaviest component can be lifted by a single worker for ease in dismantling and reassembling by hand or repositioning by crane.



Scaffolding & Aluminum Decks

A complete, easy to erect and economical scaffolding solution designed to meet and exceed ANSI an OSHA requirements.

Hi-Lite Engineers Help Make Your Project a Success

If your project has special requirements, Hi-Lite can deliver custom solutions that take advantage of our knowledge, product line and custom manufacturing capabilities as we are a full service company.

Layout CAD Drawings & Engineering Calculations

Hi-Lite provides Shoring, Scaffolding and Re-shoring layout CAD drawings with Engineer's approval and all necessary design, calculations and structural analysis using advanced computer programs.

Equipment Testing and Test Reports

Our in-house testing facility with all modern equipment will serve you in testing all shoring and scaffolding equipment with test reports which satisfy CSA and SSFI standards.

Jobsite Services

Hi-Lite provides on-jobsite services such as training, inspection, pre-pour inspection and Engineer's approval.

Equipment Estimation

Hi-Lite also provides equipment estimation services for your bidding and tendering processes.
Call Hi-Lite Engineers to talk about the special requirements of your next job. Every job has its own unique challenges – let Hi-Lite help you build a solution.

Successful Cooperation with Contractors

Hi-Lite Systems believes strongly in working cooperatively with contractors to find innovative solutions that save time and money. Below is some feedback from a Hi-Lite customer.

> "Your engineering support was critical on this highly visible project and your timely response to our never ending requests for signed and sealed calculations was greatly appreciated. As you know, we were able to completely cycle 8000 sf of typical floor shoring in less than 2 hours and, on a project where the crane time was at a premium, this kind of speed impacted all other crane dependent tasks, allowing us to meet our contract schedule obligations."
>
> **Richard Bischoff**
> Vice President/ General Manager
> Weatherby Construction

12KIP Aluminum Shoring

Cinéma Gaumont Disneyland Paris, France

Palais de Justice de Pontoise, Val-d'Oise, France

Hi-Lite's 12KIP Aluminum Shoring Frames have provided great advantages to contractors around the world – allowing them to do more with less. Here are some reasons why:

- No more than 1/3 the weight of the comparable load bearing steel frame.
- Capacity tested to safe working loads of up to 11,000 kg (24,000 lb or 106 KN) per frame with a safety factor of 2.5:1.
- Designed to replace traditional 20KIP steel frame shoring and other modular systems.
- Inter-bracing feature helps maintain full load capacity in high towers.
- Snap-on Jet Locks make erection and dismantling fast, easy and safe.

Project Statistics

Slab Thickness: 18"

Height: 32'-64'

Riverhead Digester, Newfoundland, Canada

Project Statistics

Slab Thickness: 12”-18”

Slab Height: 39’

Slab Area: 7860 sq ft

Project Description:

40' high ceiling height and 36' high wall form.

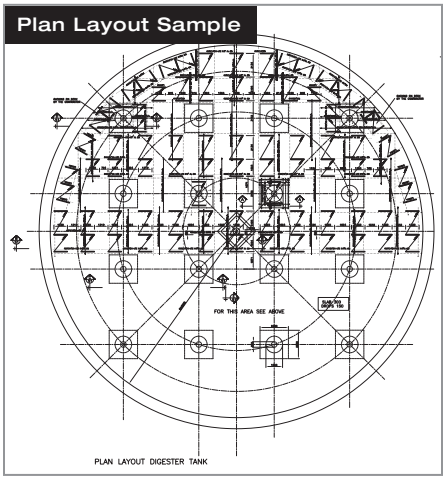
Project Challenges:

To support circular tank with sloping roof and sloping bottom and resist high lateral force while supporting 36' high concrete wall.

Project Results

Hi-Lite’s 12KIP lightweight shoring frame made it possible to support 40' high ceiling height with swivel baseplate. 25KIP push pull brace, which was 30' long, was utilized to resist tensile and compressive forces.

Plan Layout Sample



12KIP Aluminum Shoring Frames

The Hi-Lite 12KIP aluminum shoring frame system has a capacity of up to 11,000 kg (24,000 lb) per frame using a safety factor of 2.5. The 4' by 6' frame weighs less than 14 kg (30 lb).

Our Hi-Lite 12KIP Aluminum Shoring System comes with an easy-to-handle design to go with the light weight. That means one man might be able to do work that would require two or more if the material were steel or wood. Setting the frame with a crane or hand setting it are both available options.

High durability

Aluminum frames resist damage. They are reusable and, despite being assembled and reassembled many times, they experience less on-site damage as workers find them easy to handle.

Hi-Lite 12KIP Shoring Frames are easily adjusted and attach safely and seamlessly to beams and stringers.

Highly versatile

The Hi-Lite aluminum shoring frame will adapt to slopes or steps, whether they are at the top or bottom – or both at the same time. Swivel head screw jacks eliminate wedging. Almost any condition can be mastered using combinations of screw jacks, base plates and extension tubes. The adjustability of the system is the contractor's assurance that the project will proceed on schedule.

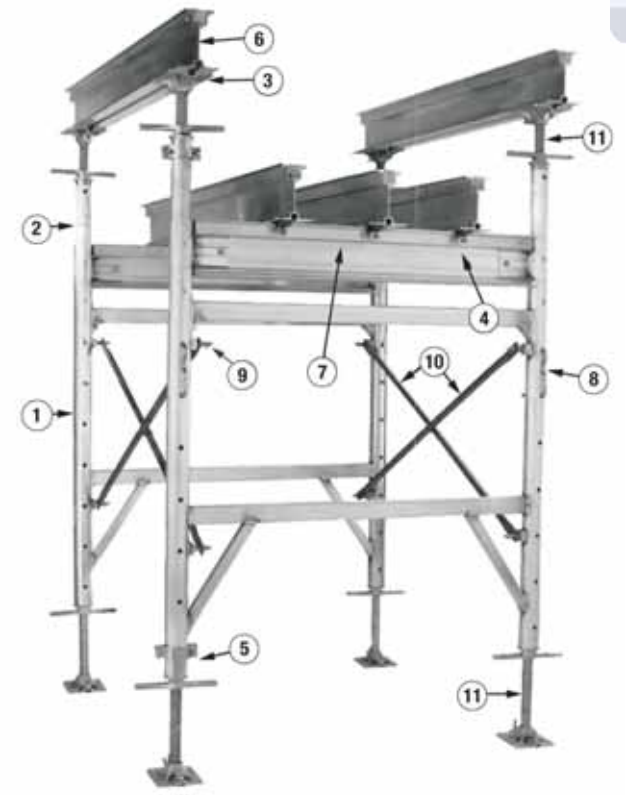
Low maintenance and handling costs

Hi-Lite aluminum shoring frames are almost maintenance free. They do not rust and never require painting. Damage resistance increases their service life. Lower weight means less inventory and that leads to lower storage, transportation, and handling costs.

Product Highlights

- No more than 1/3 the weight of the comparable load bearing steel frame.
- Capacity tested to safe working loads of up to 11,000 kg (24,000 lb or 106 KN) per frame with a safety factor of 2.5:1.
- Designed to replace traditional 20K steel frame shoring and other modular systems.
- Inter-bracing feature helps maintain full load capacity in high towers.
- Snap-on Jet Locks make erection and dismantling fast, easy and safe.

Part No.	Frames Specification	Weight	
		lbs	Kgs
	Height x Width		
12FM42	1.2m x 0.6m (4'x2')	16.5	7.5
12FM44	1.2m x 1.2m (4'x4')	19.8	9.0
12FM45	1.2m x 1.5m (4'x5')	21.5	9.8
12FM46	1.2m x 1.8m (4'x6')	23.2	10.5
12FM42	1.2m x 0.6m (5'x2')	21.8	9.9
12FM44	1.2m x 1.2m (5'x4')	26.8	12.2
12FM45	1.2m x 1.5m (5'x5')	29.3	13.3
12FM46	1.2m x 1.8m (5'x6')	31.8	14.4
12FM42	1.2m x 0.6m (6'x2')	25.7	11.7
12FM44	1.2m x 1.2m (6'x4')	30.8	14.0
12FM45	1.2m x 1.5m (6'x5')	33.3	15.1
12FM46	1.2m x 1.8m (6'x6')	35.8	16.2
12FM42	1.2m x 0.6m (8'x2')	34.0	15.4
12FM44	1.2m x 1.2m (8'x4')	40.7	18.5
12FM45	1.2m x 1.5m (8'x5')	44.1	20.0
12FM46	1.2m x 1.8m (8'x6')	47.5	21.5



1. Frame
2. Extension Tube
3. Extension Tube Plate
4. Beam Clip with T-Head Bolt
5. Retaining Clamp
6. Aluminum Beam Stringer of Joist
7. Saddle Beam
8. Extension Tube Support Pin (U-Pin)
9. Jet Locks
10. Cross Braces
11. Screw Jack – Swivel or Fixed Base

– U-Heads (not shown)

– Frame Coupling Pin (not shown)

For more details visit www.hi-lite-systems.com/12k

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

16KIP Aluminum Modular Shoring

F.J. Horgan Water Treatment Facility, Toronto ON, Canada
Lorne Park Water Treatment Facility, Mississauga ON, Canada

Project Statistics:

Contact Area: 772,000 sq ft of formwork

Concrete Volume: 26,000 cu m

Slab Thickness: 200 mm to 700 mm with height variation from 17’ to 28’

Quick Release Pin

Project Description:

Expansion of a water treatment plant capacity from 570 to 1,030 ML/D

Project Challenges:

Winning infrastructure projects relies on a contractor’s ability to save time and money – while safely completing the job. The contractor chose Hi-Lite’s 16K Aluminum Shoring Frame with the Quick Release Pin and 7-1/4” stringers to take higher loads and save on labour.

Project Results:

The contractor saved significant labour hours by increasing the productivity cycle. The Quick Release Pin enabled the contractor to release the load while moving the equipment to the next location – saving time and money. Additional savings were gained by the increased spacing between frames enabled by the higher load capacity of Hi-Lite products compared to steel (less equipment to cover bigger area), which resulted in less handling labour.

25KIP Aluminum Modular Shoring

Richardson International Airport, Winnipeg MB, Canada

Project Statistics:

Floor Area: 90,000 sq ft

Slab Thickness: 4’-9” for 25K Floors, 1’-6” for 12K Floors

Slab Height: 19’ for 25K, 22’ for 12K

Project Description:

Construction of a new airport terminal as part of the Winnipeg Airport Authority’s major site redevelopment project.

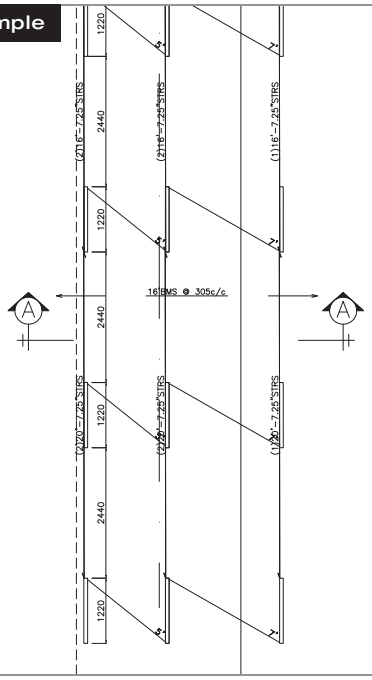
The Solution:

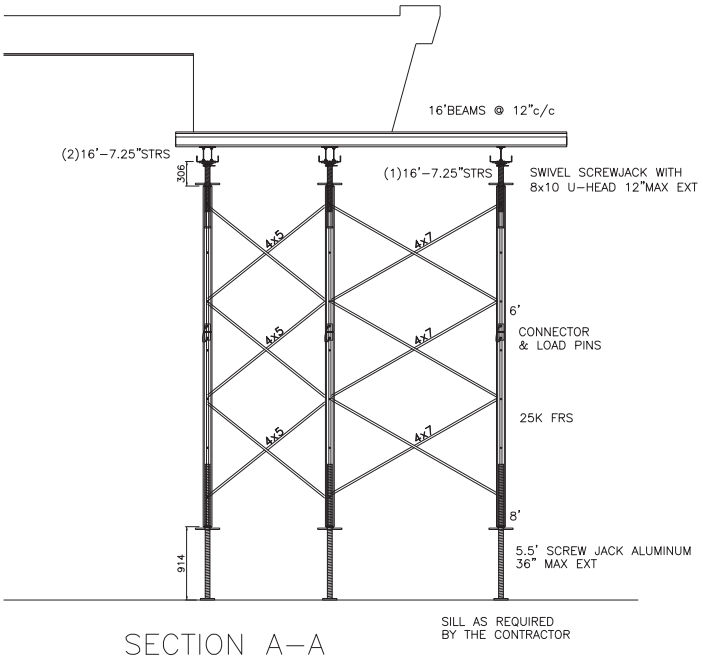
Hi-Lite 12KIP Shoring and 25KIP Modular Shoring Frames were chosen due to their easy handling, quick assembly, stripping, versatility, high resistance to damage, and durability in extreme temperatures.

The Result:

Significant cost savings in labour and material requirements largely due to Hi-Lite Systems products.

Plan Layout Sample





25KIP Aluminum Modular Shoring

Boston Big Dig, Boston MA, USA

Project Statistics:

Project Size: I-90/Route 1A Interchange

Slab Thickness: 6'-6" Deck Slab, 11'-6" Bents

Height: 20-30 ft

Concrete Poured: 200,000 sq ft

Project Description:

Extension of the Massachusetts Turnpike as part of the massive Boston Big Dig Project.

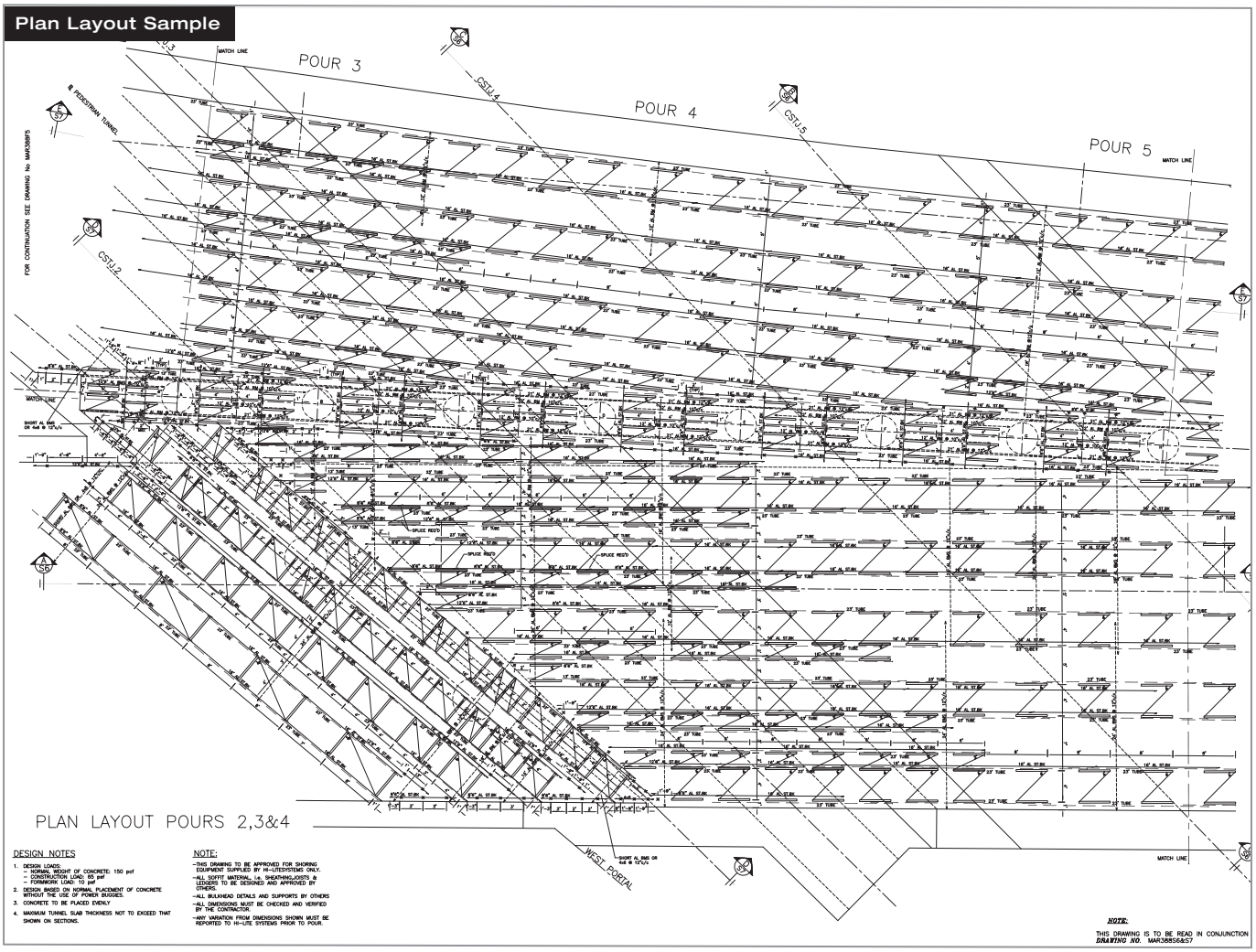
Project Challenges:

The largest project ever built in North America, variable production schedule, multiple governments involved.

Project Results

Over 70% of the poured slab was supported by Hi-Lite's 25KIP Aluminum Shoring System. Project was completed two months ahead of schedule largely due to Hi-Lite Systems products.

Plan Layout Sample



16/25KIP Aluminum Modular Shoring Frames

The Aluminum Modular Shoring Frame, an innovation we designed over thirty years ago, is now an industry standard all over the world.

Load Capacity Per Leg

Load capacity depends on the length of the post shore and whether it is braced or un-braced. Please consult our engineering department for details.

Strong and Durable

Like all our modular systems, this one is high capacity, damage resistant and reusable. It requires minimal maintenance and has a lengthy service life.

We manufacture a frame with a load capacity of up to 22,700 kg (50,000 lb or 222 KN) with a safety factor of 2.5:1, which is yet lighter than a steel shoring frame with a capacity of only 10,000 lb! The benefits are dramatic, and even more so with our design advantages.

Maximum Versatility

Hi-Lite's aluminum shoring frames are all modular.

- The legs easily convert to post shores when the inside panels are removed.
- The ledgers are compatible with two different design capacity systems – 16KIP and 25KIP.
- Four vertical T-bolt slots run the full length of every leg so that braces can be attached at any height and in all four directions.
- They accommodate ½ inch bolts with three different heads.
- Two-foot spacing of the ledgers for safe accessibility.
- Combinations of accessories like screw jacks, base plates and extension tubes can be added to meet almost any conditions, s uch as sloped surfaces.

Frame Moving Dolly

Economical

All of this means two things – lighter components and fewer components. Lower inventory means less transportation to and from the job-site. It means lower storage costs and handling charges. Ease of assembly reduces labour costs, over and over again.

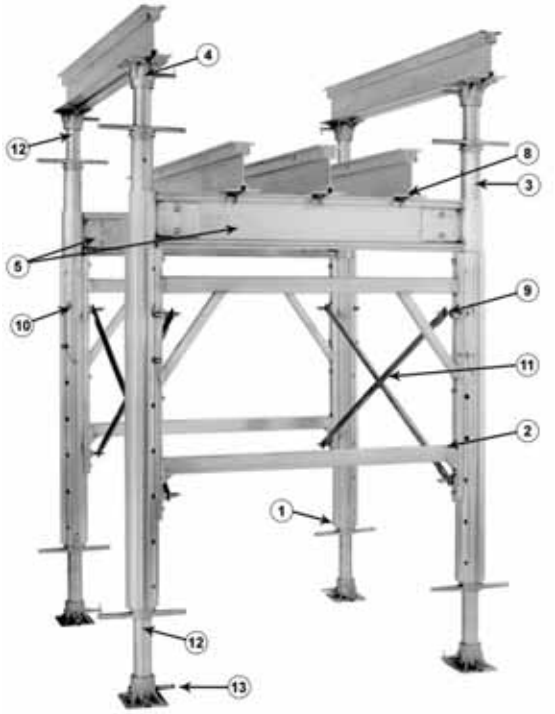
Safe and Efficient

- Aluminum shoring frames are light enough to be hand set if a crane is not desired.
- Under a slab, where use of a crane is especially awkward, hand dismantling is a real advantage.
- A single worker can lift even the heaviest component (27 kg or 60 lb).
- Snap-on Jet Locks make erection and dismantling fast, easy and safe.

Product Highlights

- Single person handling and set applications in difficult areas.
- Snap-on Jet Locks make erection and dismantling fast, easy and safe.
- Capacity tested to safe working loads up to 22,700 kg (50,000 lb) per frame with a safety factor of 2.5:1.
- Versatile components are interchangeable and adjustable to suit diverse applications.
- Transportation and handling costs are reduced because of their light weight and modular features.

Frames Specification Height X Width	16k			25k		
	Part	Weight		Part	Weight	
		lbs	kgs		lbs	kgs
	16FM44	33.4	15.2	25FM44	38.9	17.7
1.5m x 1.2m (5'x4')	16FM54	43.4	19.7	25FM54	50.3	22.9
	16FM64	50.2	22.8	25FM64	58.4	26.6
2.4m x 1.2m (8'x4')	16FM84	65.5	29.7	25FM84	77.8	35.3
	16FM45	33.8	15.4	25FM45	39.3	17.9
1.5m x 1.5m (5'x5')	16FM55	44.7	20.3	25FM55	51.5	23.4
	16FM65	51.5	23.4	25FM65	59.7	27.1
2.4m x 1.5m (8'x5')	16FM85	66.1	30.0	25FM85	78.7	35.7
	16FM46	36.7	16.7	25FM46	42.2	19.2
1.5m x 1.8m (5'x6')	16FM56	48.4	22.0	25FM56	55.3	25.1
	16FM66	55.2	25.1	25FM66	63.5	28.8
2.4m x 1.8m (8'x6')	16FM86	72.1	32.7	25FM86	84.4	38.3



1. Leg
2. Modular Ledgers
3. Extension Tubes
4. Extension Tube Plates
5. Aluminum Saddle Beams
6. U-Heads (not shown)
7. Frame Coupling Pins (not shown)
8. Aluminum Beam Clips
9. Jet Locks
10. Extension Tube Support Pins
11. Cross Braces
12. Screw Jacks
13. Quick Release Pin

Safely support 10,000 lb using Hi-Lite's heavy load post shores (even 15' high). Based on their strength/weight ratio and ease of handling, one experienced contractor said they saved 80%!

For more details visit www.hi-lite-systems.com/25k

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

Aluminum Telescopic Fly Forms

Harrah's Hotel and Casino, Atlantic City NJ, USA

Project Statistics:

Floor Area: 19 sq ft

Slab Thickness: 9" Filigree Slab

Floor Height: 13'-0"/15'-2"/9'-8"

Number of Floors: 46

Project Description:

Construction of a 46 story Hotel and Casino.

Project Challenges:

Using one table form system that could accomodate both 16' non-typical floors and 9' typical floors – without changing struts.

Project Results:

By using Hi-Lite's Aluminum Telescopic Fly Forms, adjustments were quick and easy. Project was completed eight weeks ahead of schedule with a construction cycle of three days per typical floor.

"As the Concrete Subcontractor for the new Harrah's Bay Tower II in Atlantic City, we were greatly satisfied with the use of the Hi-Life Truss Form System for the cast in place concrete decks.

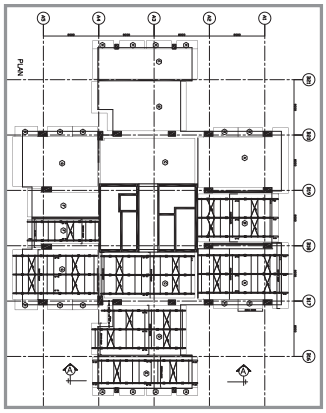
Harrah's Bay Tower II is a 46 story structure in which **WE ACHIEVED A THREE DAY CYCLE** on the typical floors. On the non-typical floors, the Hi-Lite Truss Form System was adjusted to accommodate the varying floor to floor heights. Directions and modifications to the Hi-Lite Truss Forming System were easily communicated to us by your technical support staff during the duration of the project.

The placement of the horizontal slabs was the controlling criteria for the whole project. Using the Hi-Lite Flying Form Trusses, we were able to finish this project **EIGHT WEEKS AHEAD OF SCHEDULE.**

Overall, the Hi-Lite Truss Forming System was a great benefit and allowed us to improve on the overall concrete schedule, which was welcomed by the General Contractor as well as the Owner."

Carl Sparano
Project Manager
Madison Concrete Construction

Pearl of the Emirates, Al Reem Island Abu Dhabi, UAE



Project Statistics:

Slab Thickness: 11”

Height: 11’-2”

Project Description

Construction of twin 50 story towers.

Project Challenges

Make efficient use of the 3 small tower cranes servicing both towers and minimize time-consuming conventional shoring.

Project Results

Utilizing the lightweight aluminum telescopic fly form, table widths of up to 8m were designed and hinged panels were used extensively between the columns so that over 98% of the slab was supported by the system formwork. The contractor saved time and reduced costs.

Aluminum Telescopic Fly Forms

Borgata Hotel, Casino and Spa, Atlantic City NJ, USA

Project Statistics:

Slab Thickness: 9”

Floor Height: from 13’-4” to 15’-1”, typical height of 9’-9”

Floor Area: 22,632 sq ft

Project Description

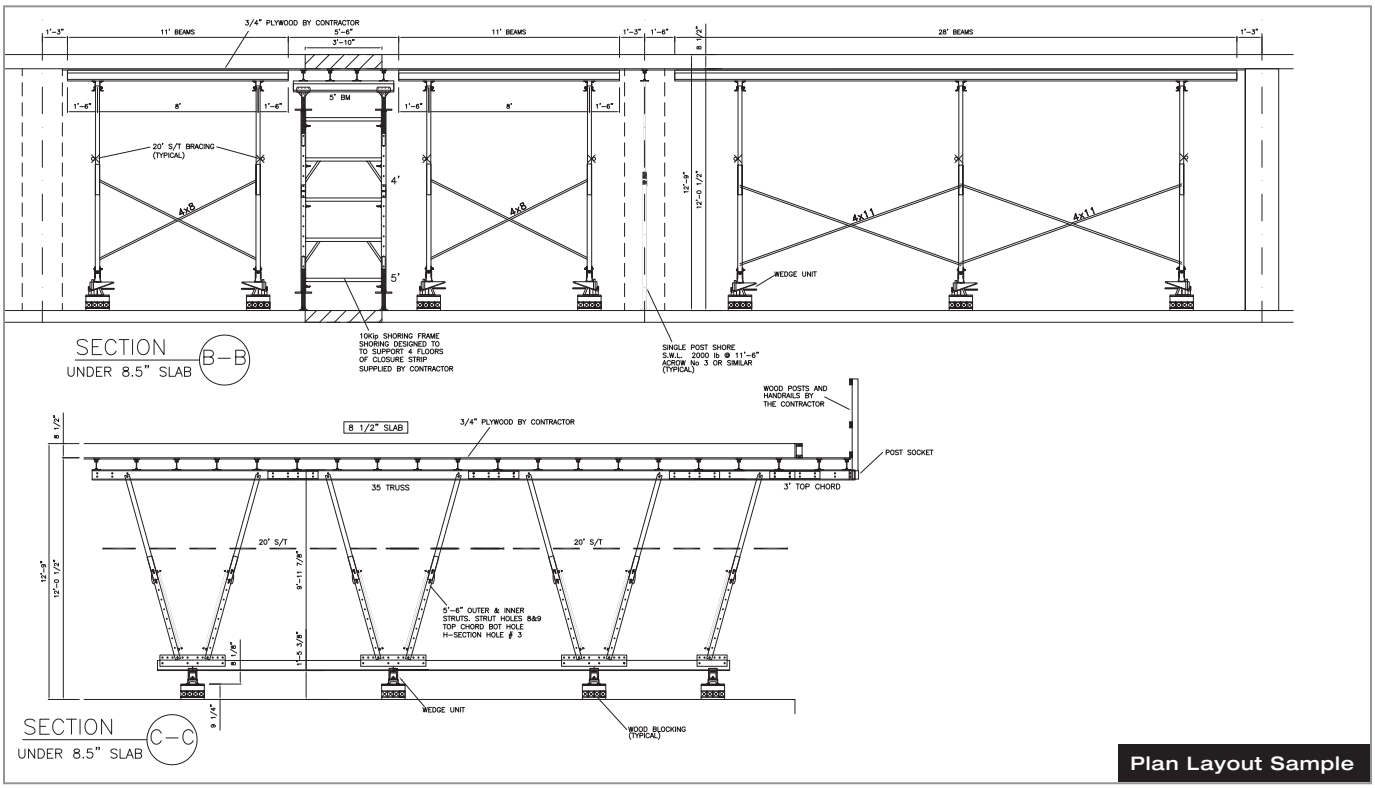
Phase I and II construction of a new 50 story hotel and casino.

Project Challenges

To make and fly 73' X 13' wide panels from non-typical to all typical floors. Up to 48 floors.

Project Results

Hi-Lite’s hi-strength, lightweight flying form provided easy operation for setting and leveling, rolling, moving and flying from one floor to another. Hi-Lite performed so well in Phase I of the project that it was also awarded Phase II.



Plan Layout Sample

"Collavino was extremely pleased with the performance of the equipment purchased from Hi-Lite to construct the floors. Collavino thanks Hi-Lite for their professionalism in coordinating the layouts and taking the time to train our employees how to use this system effectively and efficiently in order to allow for the best possible production and performance."

Paolo M. Collavino
Project Manager
Collavino Northeast Construction

"I would like to take this opportunity to thank you for your efforts and performance on our 40-story tower for the Borgata Water Club project in Atlantic City. Your 70' flying tables performed as promised, resulting in a safe and efficient shoring operation on a project that I trust was as successful for you as it was for Weatherby Construction.

These lightweight aluminum tables were fantastic and I would be happy to be a reference for your firm if that is something you would like. Once again, thanks for your help and we look forward to working together again, hopefully soon."

Richard Bischoff
Vice President/ General Manager
Weatherby Construction

Aluminum Telescopic Fly Forms

The bigger, higher and more complex the project, the more Hi-Lite Aluminum Telescopic Fly Forms help you complete it on time and under budget.

The Fly Form is a modular component system assembled into rugged adjustable aluminum trusses, using standard aluminum beams and a range of compatible custom designed accessories. With an average weight of only eight pounds per square foot it permits a much larger surface area as compared to steel. Your workers' productivity soars.

The more floors, the more time you save

Ease of movement and reusability means faster turnaround time. It's ideal for multiple stories, large bay shopping malls and below grade structures.

The telescopic component design means the system easily adjusts for differing floor heights. The bigger and more complex the project, the better our product is for you!

Ideal for bridges, overpasses and tunnels

The more shoring heights increase, the more valuable the higher strength and load-bearing capacity becomes.

The telescopic feature of our fly form allows for quick height extensions of up to two feet. It also reduces the cost of filler strips and minimizes material wastage by being able to easily move the form up against one wall and only use filler strips on the other side. You will also save time with wedges that replace time-consuming flip screw-jacks.

Reduce crane time

Fly and drop. The crane sets the frame down on blocks near the desired location. Our hydraulic jack dollies then go to work, helping position the form precisely in just minutes, even under edge beams. The crane is released far sooner for other work. Lower down time means on time completion at lower cost.

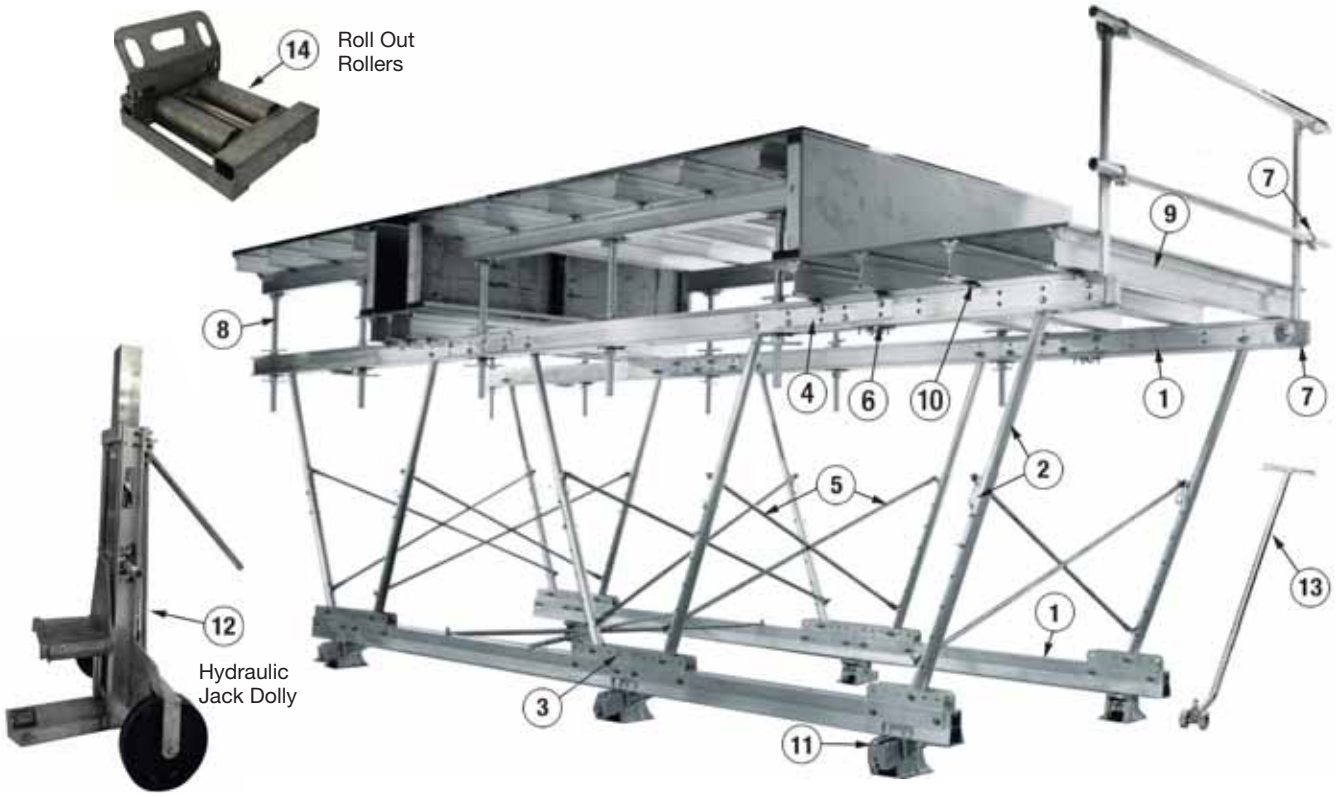
Lighter sized frames may not require a crane at all – an impossibility with steel or wood.

Reduce labour and material costs

The system uses standard modular components for ease of assembly and disassembly. The reduced labour and crane time speeds up the entire construction process. You increase productivity, profits and customer satisfaction.

Product Highlights

- Ideally suited for multiple stories, large bay structures, bridges, overpasses and tunnels.
- Significantly reduces crane time.
- Telescopic feature easily adjusts for differing floor heights.
- Modular components reduce skilled labour cost.
- Lightweight and easy to handle–means increased productivity.



1. Top and Bottom Chords
2. Telescopic Struts & Support Pins
3. H-Section
4. Top Chord Splice Plates
5. Cross Braces
6. Pick Brackets
7. Guard Rail Post Holders
8. Top Chord Screw Jacks
9. Joist Beams
10. Beam Clips With T-Head Bolts
11. Wedge Units
12. Hydraulic Jack Dolly
13. Form Movers
14. Roll Out Rollers

For more details visit www.hi-lite-systems.com/flyform

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

Aluminum Bridge Overhang Brackets

Athabasca River Bridge, Ft. McMurray AB, Canada

Project Statistics

Size Of Bridge Deck: 472 m long x 33 m wide

Width Of Slab: 1524 mm

Slab Thickness: 300 mm

Interior span between Girders (To maintain same spacing for inside and outside the girders)

2700 mm – 2 NOS. - 6” strongbacks

3657 mm – 2 NOS. - 7-1/4” strongbacks

Project Description

The Athabasca River Bridge has the largest bridge deck in Alberta.

Project Challenges

Bridge deck measures 472 m long by 33 m wide – approx. the size of five football fields. Construction was to occur under difficult Alberta winter conditions above water.

The Bridge Contractor was looking for a deck formwork system that can install easily and safely, and save time and money.

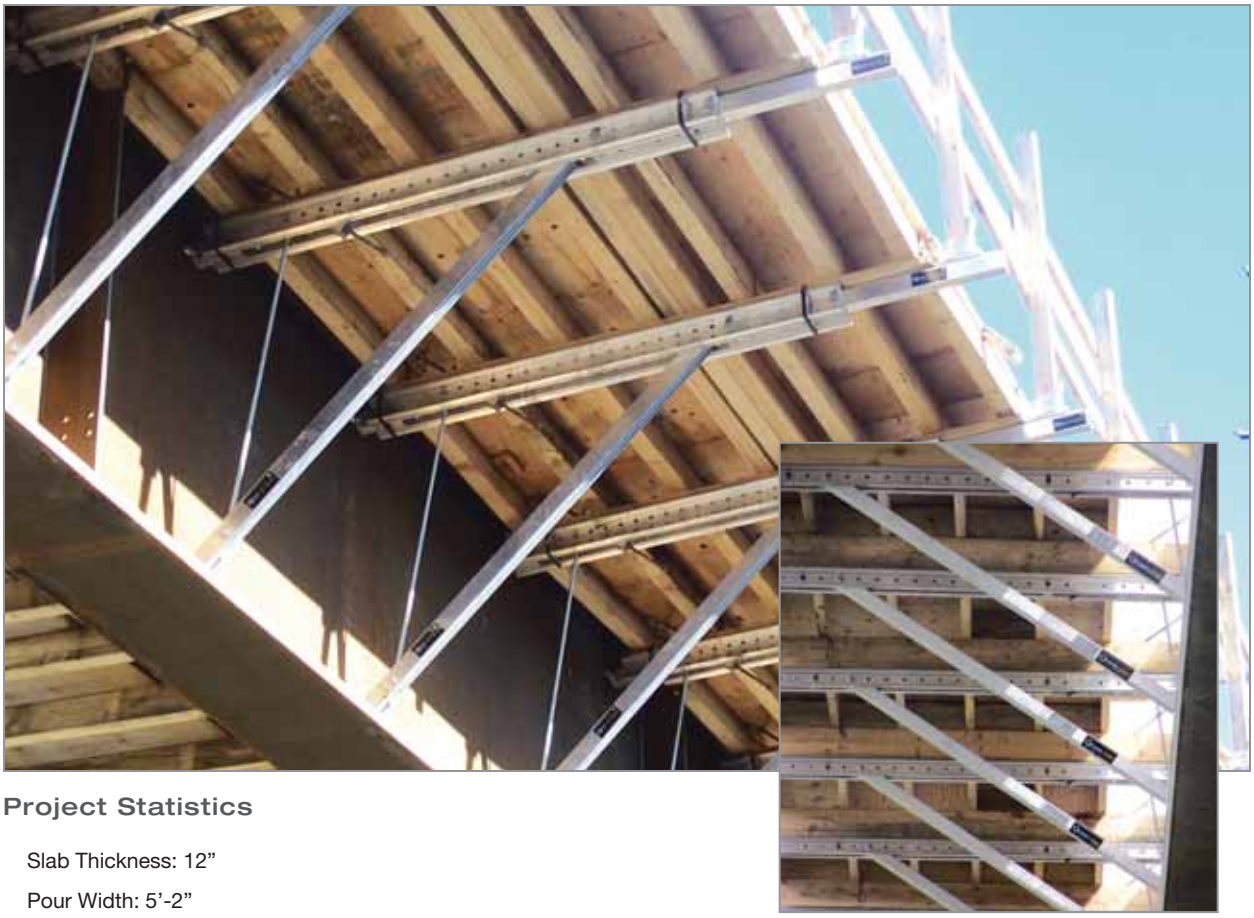
Project Results

- Half the number of brackets were required vs. steel.
- Light and easy to work with – required less labour.
- Easily installed the formwork directly on the launching deck, speeding up the process.
- With strongbacks, equal spacing was maintained inside and outside steel girders – saving material and labour.
- Overhang brackets were installed by one person lifting it up on the deck and the second installing it into place.
- Overhang brackets were easily adjustable from the top, enhancing worker safety under difficult conditions.
- A 50 meter span of brackets installed in just 2 hours!

> "We've had great success installing these [Hi-Lite] overhang bridge brackets as well as the interior aluminum strongbacks...a single man was able to lift them into place..."
>
> "On the inside we have 6" deep strongbacks. We were able to install them much quicker than we would have achieved with wood."

Aluminum Bridge Overhang Brackets

Boulevard des Allumettières Bridge, Gatineau QC, Canada



Project Statistics

Slab Thickness: 12”

Pour Width: 5’-2”

Screed load: 1894lb/Wheel

Project Description

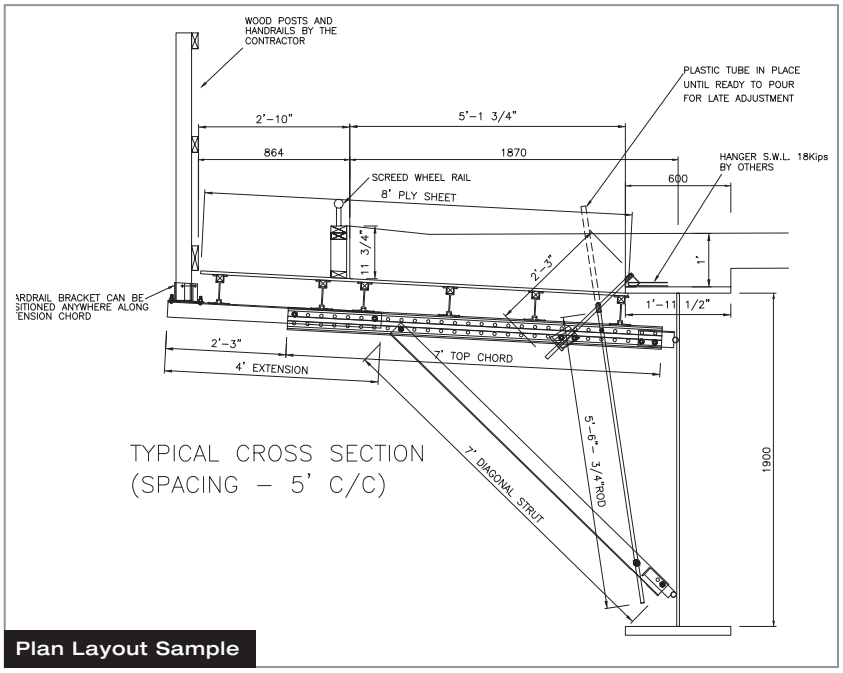
Bridge Repair and improvements.

Project Challenges

To find time and cost saving methods for bridge work that allowed quick and easy assembly, adjustment and dismantling of overhang brackets.

Project Results

Hi-Lite Aluminum Bridge Brackets were installed quickly and efficiently, saving both time and money.



Plan Layout Sample

I-95 Overpass, New Haven CT, USA

Gang brackets with cross-braces and fly them together 5-6 at a time.

PROJECT DESCRIPTION:

The completion of several bridges and overpasses on the I-95.

PROJECT CHALLENGES:

The contractor required a safe and economical bridge bracket solution to win a 2 year project involving the construction of several bridges and overpasses. Hi-Lite's 6K Aluminum Bridge Bracket Solution was chosen.

PROJECT RESULTS:

Compared to steel brackets, the Hi-Lite Bridge Bracket Solution significantly increased the contractor's productivity cycle and reduced labour costs. Using cross-braces, the contractor could connect 5 brackets in gang form and fly them to the bridge deck were they could be quickly installed. Their light weight also made them easy to handle. For enhanced safety, the brackets are designed with a top down adjustment feature, reducing unnecessary risk of adjustment from beneath the deck.

Finally, the durable nature of Hi-Lite's Aluminum Bridge Brackets made them ideal for use on multiple bridges over an extended period of time. Compared to steel which corrodes and can be easily damaged, Hi-Lite brackets can withstand the harshest conditions.

Aluminum Bridge Overhang Brackets

With the same load capacity at half the weight of steel, the Hi-Lite Bridge Overhang Bracket System reduces installation time – every time.

Heavy Duty 12KIP / Light Duty 6KIP

Strong and Lightweight

Hi-Lite Aluminum Heavy Duty Bridge Brackets weigh only 55 lb (1/3 the weight of conventional steel brackets). Their strength allows them to be spaced twice as far apart – up to 10 feet – requiring fewer brackets to complete the job.

Safe

An adjustment rod controls the diagonal strut from above. The bridge bracket can be leveled quickly without going underneath. The safety rail, either lumber or tube-and-clamp, attaches to the Guard Rail Post Holder, which can be adjusted to accommodate sloping decks.

Efficient

Assembly is fast and easy. The adjustment rod is removed easily and the diagonal strut folds against the rest of the bracket. That way the entire bracket takes up very little space during shipping. The aluminum material is also far less likely to damage the bridge girders.

Versatile

The components of the bracket are modular, meaning that the parts are all standard but are highly adjustable. Different overhangs and different bridge shapes therefore present no difficulty and that saves labour and materials.

The upper top chord and the diagonal strut are manufactured with a T-bolt slot all along their length. Because of this the rest of the parts can be attached and stripped easily or the bracket can be flown into position by crane.

A Top Chord Extension can be used to lengthen the upper portion of the bracket.

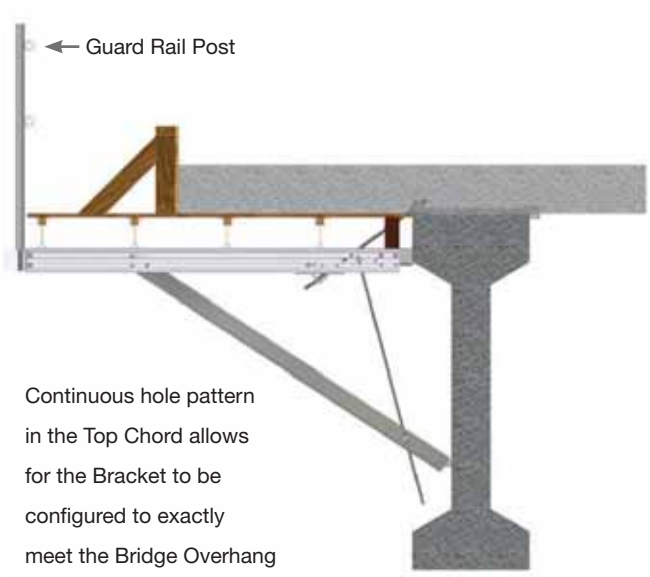
Economical

The Hi-Lite bridge overhang bracket installs and strips quickly, adjusts to most conditions and has a superior load-bearing capacity. The contractor saves on both materials and labour, and the project is not slowed down by unusual conditions. Better. Faster. Cheaper.

Product Highlights

- Can be spaced twice as far apart compared to equivalent steel brackets.
- Requires significantly less labour for installation and stripping.
- The Adjustment Rod can be easily and safely turned from above without going underneath.
- The aluminum resting bars are far less likely to damage the bridge girders.
- A Top Chord Extension can be used to lengthen the upper portion of the bracket.

The Resting Bars are made of aluminum so that there is a major reduction in the chance of scratching and/or damaging the steel or concrete bridge girders.



Continuous hole pattern in the Top Chord allows for the Bracket to be configured to exactly meet the Bridge Overhang design. The Tie-Back Brackets can be positioned anywhere along the Top Chord to achieve the most desirable angle.

Workers no longer need to use scissor lifts or other more injury prone methods to adjust the bridge brackets. HI-LITE's patented Top-Down leveling feature allows them to adjust brackets from the top of the deck – safely and quickly.

For more details visit www.hi-lite-systems.com/bridge

Contact us for additional details including engineering data, maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

System Scaffolding, Aluminum Decks and Aluminum Beams

Princess Margaret Bridge, Fredericton NB, Canada

Project Description:

The refurbishment of a 2-lane 1 km long bridge with 17 spans crossing the St. John River. The bridge is constructed as a steel truss structure with a navigation clearance of 25.6 m (85 ft) in the centre.

Project Challenge

To win this infrastructure project, the contractor needed a scaffolding system and deck platform that would allow them to economically and safely cover the entire 1km bridge length. The contractor chose Hi-Lite Aluminum Beams, Aluminum Decks and System Scaffolding Solution.

Project Results:

Hi-Lite's high-strength and light weight systems allowed the contractor to reduce labour and save time and money. Made from High Grade Structural Aluminum 6351-T6, Hi-Lite Aluminum Beams could be spaced 24" apart for a 10' span and could still withstand a 75 PSF load with safety factor of 4:1. This required less product than Aluminum Beams made by other companies using weaker Aluminum 60601-T6, and less labour to erect, move and dismantle.

Hi-Lite also provided a complete System Scaffolding solution – standards, ledgers, ladders, clamps etc. that satisfied all the CSA & NB DOT requirement for bridges. Hi-Lite 7' and 10' Aluminum Decks (100 PSF and 75 PSF) were used to withstand man and material load as specified by the CSA Code - maintaining a safety factor of 4:1. The decks are light, easy to assemble and work seamlessly with the System Scaffolding Solution.

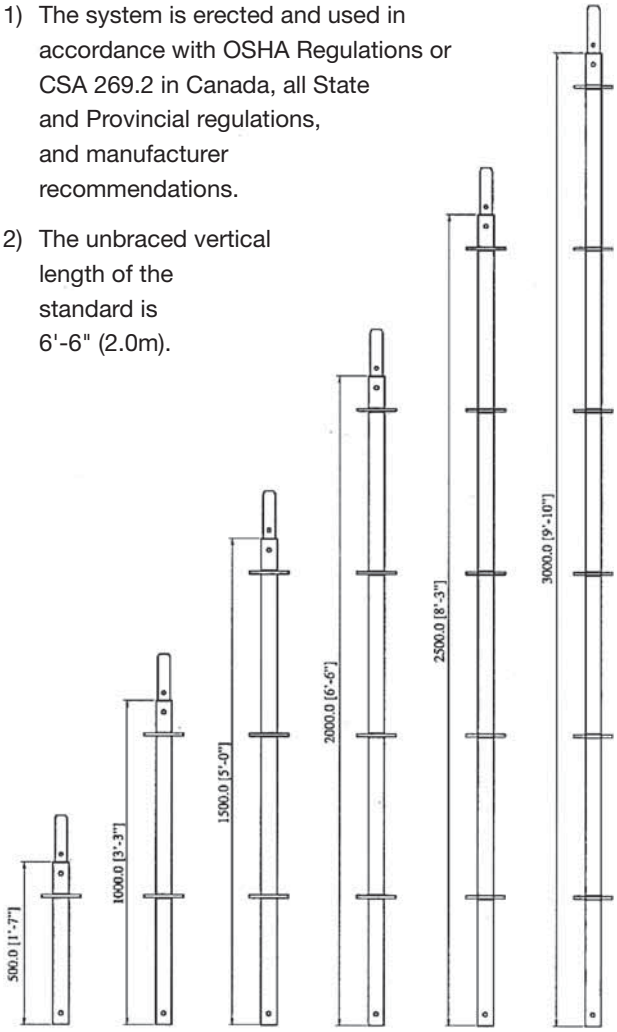
Hi-Lite System Scaffolding and Aluminum Decks work seamlessly together for quick assembly, handling and dismantling.

System Scaffolding

Hi-Lite System Scaffolding provides a complete, easy to erect, scaffolding solution. It is manufactured to ISO 9001-2000 Standards and has been designed to meet and exceed ANSI an OSHA requirements.

Note: The allowable leg load for the standard is 5000 lbs. (22.64Kn) per standard with a Safety Factor of 4:1, provided the following criteria are followed:

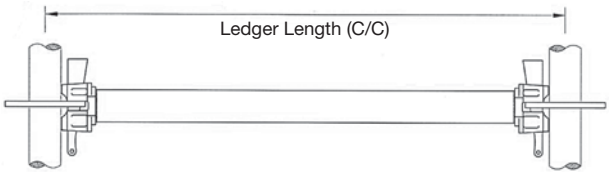
1) The system is erected and used in accordance with OSHA Regulations or CSA 269.2 in Canada, all State and Provincial regulations, and manufacturer recommendations.
2) The unbraced vertical length of the standard is 6'-6" (2.0m).



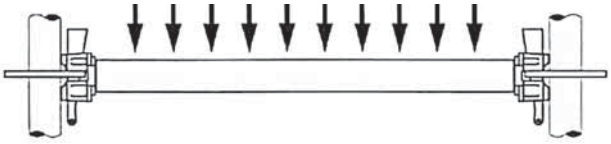
Standards

Length	1'-7" (0.5m)	3'-3" (1.0m)	5'-0" (1.5m)	6'-6" (2.0m)	8'-3" (2.5m)	9'-10" (3.0m)
Weight in lbs.(kgs)	6.5 (3.1)	11.5 (5.2)	17.0 (7.7)	22.0 (10.0)	26.0 (11.8)	32.0 (14.5)

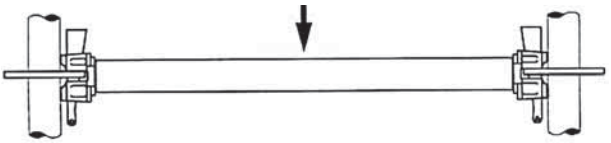
Ledgers: 2'-0" to 10'-0" (0.61m to 3.05m)



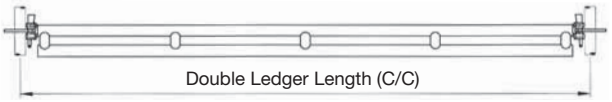
Uniformly Distributed Load (UDL)



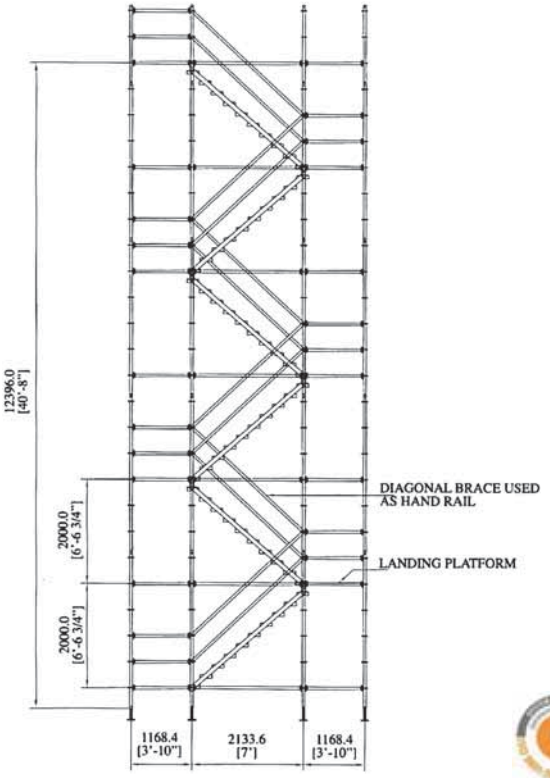
Point Load (PL)



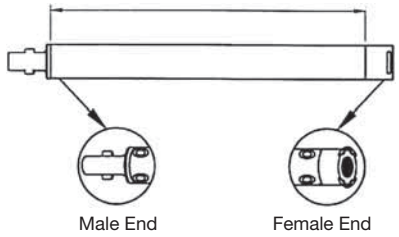
Double Ledgers: 5'- 2" to 10'- 0" (1.57m to 3.05m)



System Stairways: 3'-0" (0.91m) 3'-6" (1.06m) 7'-0" (2.13m)

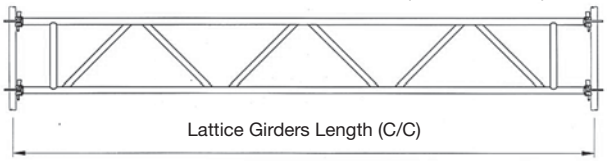


Tubelock: 1.90" OD Steel tube with end fitting.



Bolt Couplers: Drop Forged

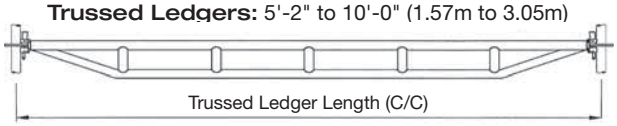
Lattice Girders: 14'-0" to 21'-0" (4.26m, 6.39m)



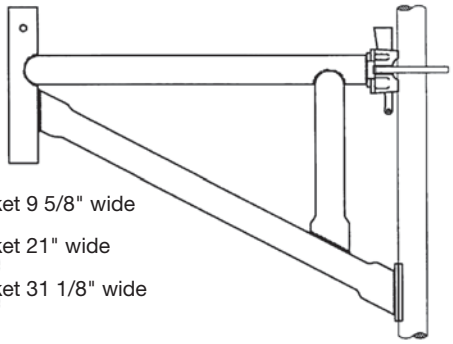
Casters

Scaffold Rack

Trussed Ledgers: 5'-2" to 10'-0" (1.57m to 3.05m)



Side Brackets: 1 Board, 2 Boards, 3 Boards;

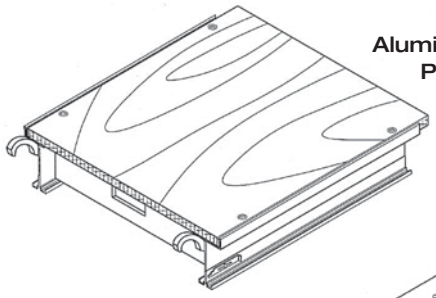


Side brackets are available in three sizes

1 Board side bracket 9 5/8" wide

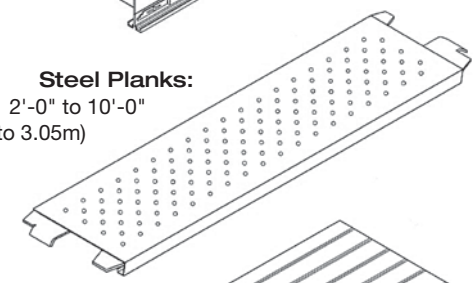
2 Board side bracket 21" wide

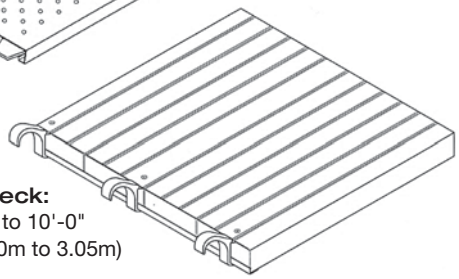
3 Board side bracket 31 1/8" wide



Aluminum Plywood Deck:
5'-0" to 10'-0"
(1.50m to 3.05m)

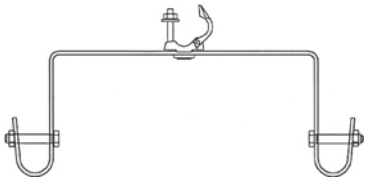
Steel Planks:
2'-0" to 10'-0"
(0.61m to 3.05m)





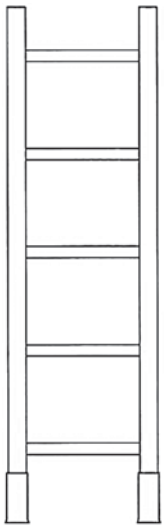
Aluminum Deck:
5'-0" to 10'-0"
(1.50m to 3.05m)

Ladders: 3'-0", 5'-0", 6'-0", 10'-0"



Ladder Bracket (5TB 100)

Weigth: 2.3 Kgs (5 Lbs)



TESTING: Material specification data sheets have been compiled from physical and chemical testing conducted by an independent US company.

ENGINEERING: For additional information on load criteria for any product in this manual, please contact our Engineering Department.

Various Aluminum Wall Form Projects

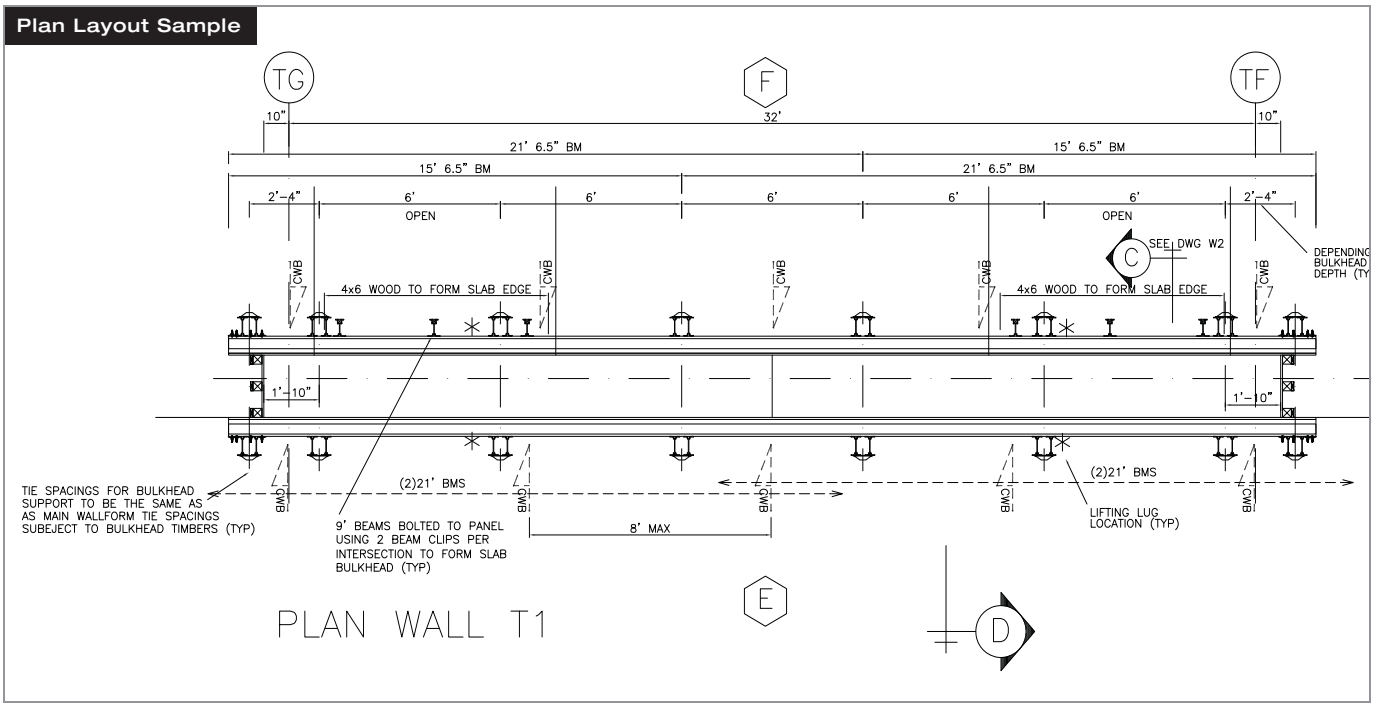
Post shores transformed into 30' long Aluminum Push and Pull Braces

With the Hi-Lite Aluminum Wall Form System, you get:

- A system that uses the minimum number of components possible.
- Reusable components.
- Formwork that is easy to assemble and strip.
- Frames that can be reassembled or repositioned quickly.
- The flexibility to adapt to changes in size during the construction cycle.
- Post shores that can be transformed into push-pull braces.

The Number of parts is minimized by providing three different types of Aluminum Strongback Beam Systems. These two-piece back-to-back channels support the tie rods that hold the two wall forms together. Each tie rod is bolted to the strongback assembly, goes all the way through the concrete, and is bolted to the strongback on the other side. When the concrete hardens, the tie rod is removed along with the rest of the formwork and the resulting hole is plastered or plugged. The tie rod can then be reused, saving on costs.

Plan Layout Sample



Aluminum Beam Concrete Wall Form System

Construction industry leaders choose our aluminum beam concrete wall form system over steel and wood – it reduces cost and increases productivity.

Easy to handle and reusable

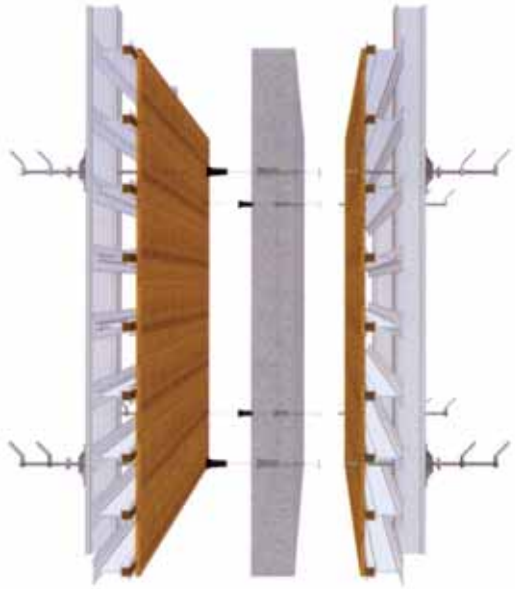
The light weight means that even the heaviest component can be lifted by a single worker for ease in dismantling and reassembling by hand or repositioning by crane. All three systems are made of aluminum parts which are damage resistant and can easily be stripped by the workers.

Variable conditions

When wallform or column size changes during construction Hi-Lite has the answer. Our strongbacks – in any system – can be spliced together using our unique telescopic channels to create joists. They can also be used as joists in the formation of concrete slabs.

30' long Aluminum Push and Pull Brace

Hi-Lite aluminum beam concrete wall forming systems meet and exceed the demands of contractors the world over building projects with walls and columns of any height and length. One of our systems is sure to meet your needs.



Modular design outperforms

We minimize the number of parts by providing three different types of Aluminum Strongback Beam Systems.

Aluminum strongbacks are the two-piece back-to-back channels that support the tie rods that hold the two wallforms together. Each tie rod is bolted to the strongback assembly, goes all the way through the concrete and is bolted to the strongback on the other side. When the concrete hardens, the tie rod is removed, along with the rest of the formwork, and the resulting hole is plastered or plugged.

There are three systems: lightweight, mid-range, and heavy duty gang.

Product Highlights

- Uses the minimum number of components possible.
- Reusable components.
- Assembles and strips easily.
- Frames can be reassembled or repositioned quickly.
- Can quickly adapt to changes in size during the construction cycle.

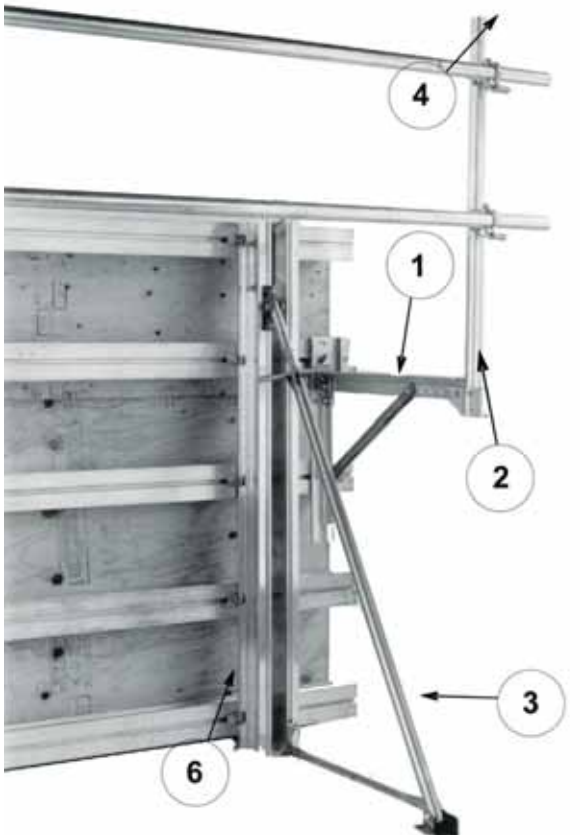
Aluminum
Push-Pull

Available in three systems

1. The light weight system – can be hand set. It uses light duty tie rods bolted to small size strongback channels for vertical support. The horizontal beams/stringers are also in the small size range.

2. The mid-range system – must be gang set. It uses a smaller number of medium strength tie rods and medium size strongbacks. This system uses vertical joists and horizontal beams or stringers which are all medium size.

3. The heavy duty gang system – is also gang set and uses the least number of tie rods spaced the furthest apart. This system uses tie rods, strongbacks vertical joists and horizontal beams/stringers which are all heavy-duty.

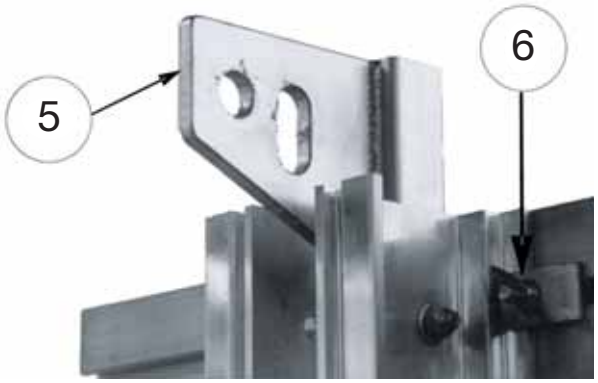


1. Catwalk Brackets attach to joist or strongbacks
2. Post Sockets fit standard tube or 2x4 lumber
3. Push pull props
4. Clamps for guard rails
5. Lifting Lugs
6. Beam Clips

   Levelling Plates (not shown)

   Strongback Shoe (not shown)

   Tie Plates 50 Kps. and smaller (not shown)



For more details visit www.hi-lite-systems.com/wallform

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

16/25KIP Aluminum Post Shores

Hi-Lite Aluminum Post Shores are engineered for quick and easy handling, require minimal maintenance, and can be easily converted to shoring frames.

Load Capacity

Load capacity depends on the length of the post shore and whether it is braced or un-braced. Please consult our engineering department for details.

Efficient

The light weight means one man can handle, assemble and disassemble and that provides a more streamlined operation and less downtime.

Versatile

Post shores convert to frames and back with demountable ledgers. That reduces your inventory even more.

Each post is equipped on all four sides with a full-length vertical T-bolt slot that accepts bolts with three different heads. This feature alone will save you frustration, along with time and money.

Any Configuration

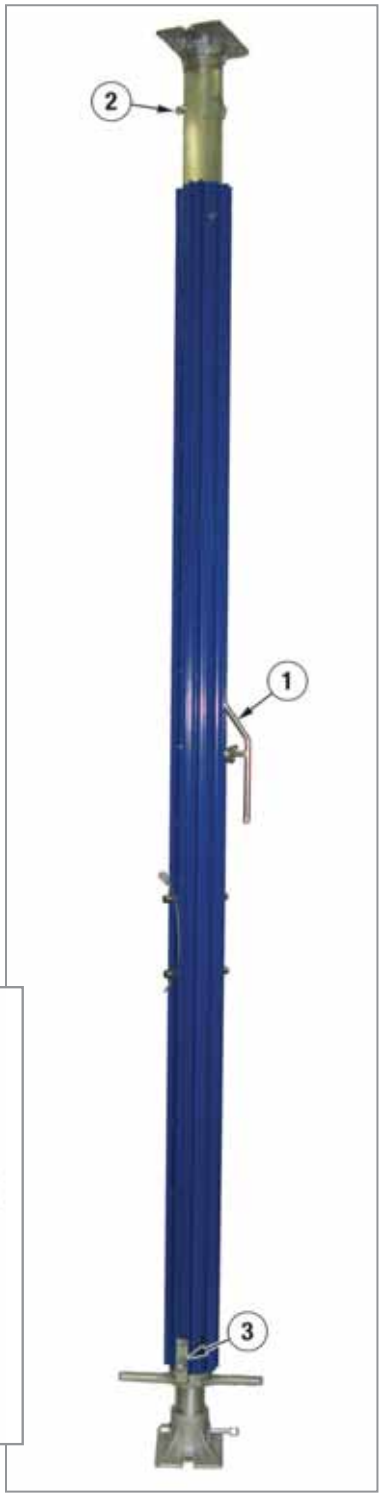
All your components can now be fastened in all four directions anywhere along the length of the post using any standard ½" bolt. Almost any configuration – including sloped surfaces – can be accommodated so your staff can get on with their work no matter what surprise comes up.

Economical

Hi-Lite aluminum post shores handle quickly and easily. They are reusable, and need minimal maintenance. It all adds up to reduced materials cost, lower labour expense and a job done on schedule. The customer is happy and so are you.

Product Highlights

- Engineered for quick and easy handling.
- 50% of the weight of comparable steel capacity shores.
- Minimal maintenance required.
- 4 Vertical T-bolt slots run the full length of the post shore.
- Post Shores convert to frames by adding demountable ledgers.



1 Carry Handle

Carrying Handles complement the post shores by providing workers a tool that simplifies the handling of the post shores and/or beams. Just put the T-bolt into the slot and turn it.

2 Plate Connecting Pin

The Post Shore Plate Connecting Pin is longer to provide a handle to raise the extension tubes when used for the centre supports in a fly form truss at the bottom.

3 Screw Jack Retaining Clip

Screw Jack Retaining Clips secure the screw jack into the frame leg or post shore, while still allowing the handle to turn. Bolted on with 1/2" x 1" bolt.

4 Quick Release Pin

Quick Release Pins are used on swivel and fixed screw jacks and base plates. One solid hit on the taper pin releases the load so the handle can be turned freely. This feature eliminates damage and worker risk associated with traditional hammering of screw jack nuts to loosen the load.

For more details visit
www.hi-lite-systems.com/postshore

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

Aluminum Beams

By using Hi-Lite Aluminum Beams and Stringers in all your projects, you can reduce both labour and materials costs – in significant amounts.

Hi-Lite Aluminum Beams have many advantages over competing beams. Our designs save time on the job and reduce maintenance. Please refer to our load charts for capacities. Generally speaking, Hi-Lite beams carry more load and usually cost less.

Stronger

Hi-Lite Beams are made from high grade structural alloy 6351-T6, which has greater strength than 6061-T6 alloy. Reinforced side flanges resist bending and retain beam clips. Employees spend less time repairing and more time working.

Safer

Wider flanges resist overturning. Fewer accidents and injuries mean less employee downtime and lower insurance costs.

More Efficient

Bevels on T-bolt slots provide for fast alignment of T-bolt components. Rapid assembly moves the project ahead, overcomes unforeseen delays quickly.

More Versatile

Wood and plastic insert allows for nailing or screwing down plywood decking. Hollow beams are designed to allow 2x4 and 2x6 wood members to be inserted in order to extend the length of the beam. Less subject to damage. Reusable. It all adds up to less inventory, less storage, lower transportation cost, and lower carrying costs.

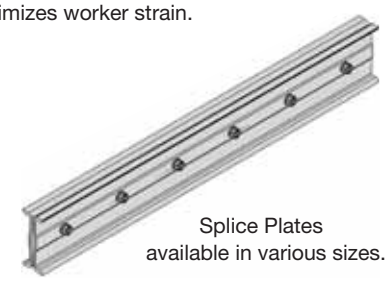
More Economical

12 mm (½") T-bolt slots provide for easy fastening of beams and stringers to their supports or to each other. Your workers will be more productive and the lower labour costs will be reflected in your bottom line.

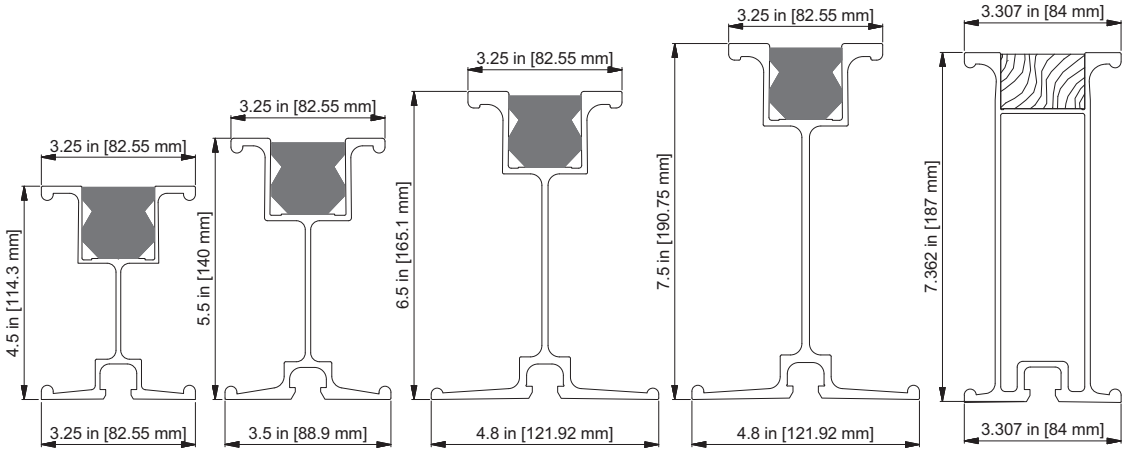
HI-LITE T-bolt
c/w Beam Clip

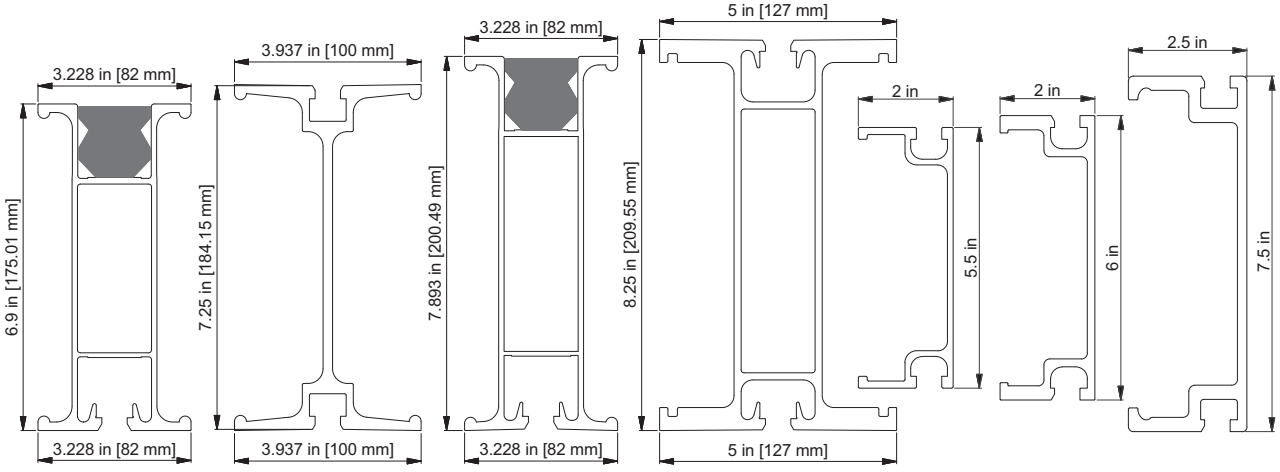
Product Highlights

- Eliminate up to 1/3 of the horizontal members and as much as 1/2 of the vertical supports, using aluminum beams instead of wooden ones.
- Reduced weight of each beam combined with fewer structural members minimizes worker strain. Lower worker fatigue means higher worker efficiency and lower costs.
- The greater the shoring height, the more these advantages benefit you.
- All beams are available in standard lengths of 8', 9', 10', 10'6", 12', 14', 16', 18', 20', and 21' with wood or plastic inserts.
- All beams can be specially ordered in almost any length, up to 12 meters (39 feet) to suit the inside dimensions of an ocean-going container, or even longer if this is not a restriction.



Splice Plates
available in various sizes.





Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

Reusable Tie Rod Systems

Contractors save time and money using Hi-Lite components because they are easy to install and strip and are reusable.

How the design of a small part can make a big difference

- It increases worker productivity – lowers labour costs.
- Reduces inventory – lowers material costs.
- Keeps the job moving ahead.

Here is how a simple part like a tie rod can do all that.

1) It comes with wide-mouthed cones and a iron tube spacer. The spacer is used to position the rebar and larger-sized holes are drilled in the walls. The cones act as joiners. You save time by not nailing a holder for every rebar to the plywood.

2) You save even more time by not searching for a small hole in the plywood for every single tie rod your workers push through it. The wide mouthed cones act as joiners.

   Push the tie rod through the strongback and attach to the cone. What could be simpler?

3) The two wall forms line up easily.

4) Reuse all the parts except the inexpensive plastic tube, which is left in the wall. Even the cones are easily removed. No she-bolts, spacers, snap-ties or coil-rods are consumed!

5) Hi-Lite Tie Rods act as spacers and eliminate the need to nail spacers to the wall form. You save even more time.

6) With a recessed iron tube as the only remaining part, no spacer is exposed on finished surfaces.

Hi-Lite Tie Rods are available in three sizes:

- 1/2" which is rated at 6.8 kips SWL (2.2 to 1)
- 3/4" which is rated at 18.0 kips SWL (2.2 to 1)
- 1" which is rated at 37.8 kips SWL (2.2 to 1)

For more details visit
www.hi-lite-systems.com/tierod

Contact us for engineering data including maximum loads for strength to weight ratios, load capacities, quality control specifications and other technical data.

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