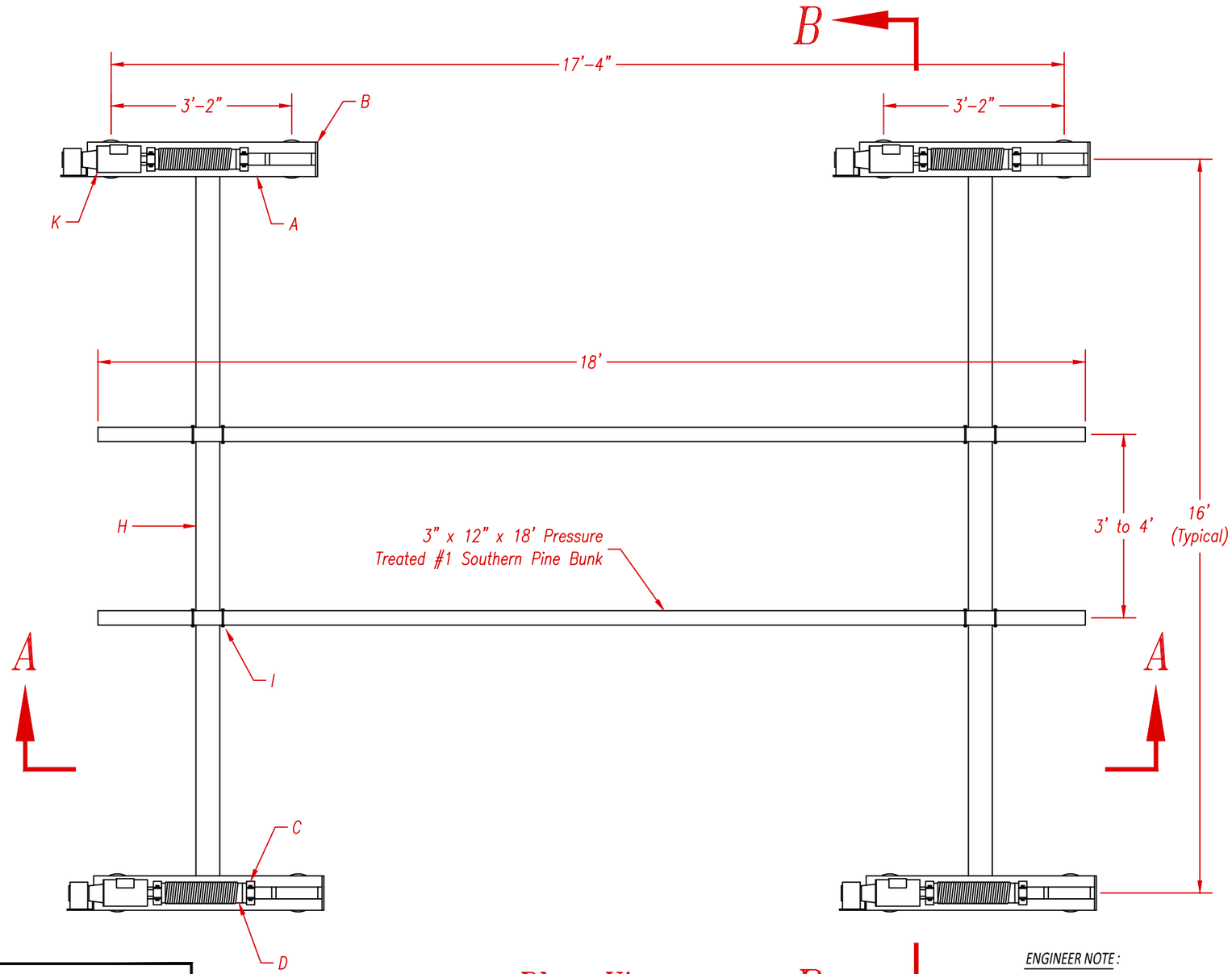

Plan View

Scale: 3/8" = 1'=0"

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902 NE 1 Street Suite #2
Pompano Beach, Florida 33060
Ofc: 954-532-0129
WWW.MwEngineering.net

30,000 lb. 8 Post Boatlift
DAN DUENKEL
672 DREAM ISLAND RD
LONGBOAT KEY, FL 34228

NEPTUNE BOAT LIFTS
228 SW 21 Terrace
Fort Lauderdale, Florida 33312
Phone: 954-524-3616
Fax: 954-524-3604

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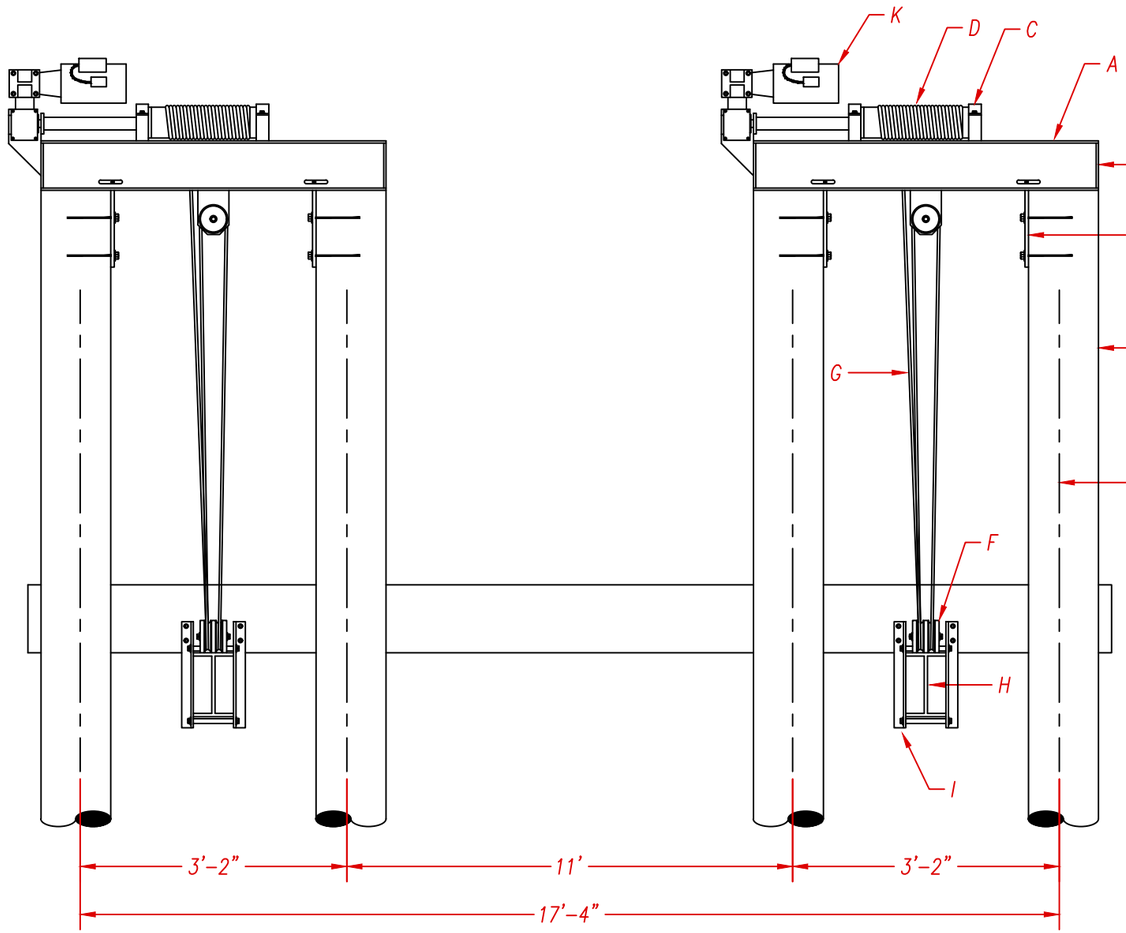
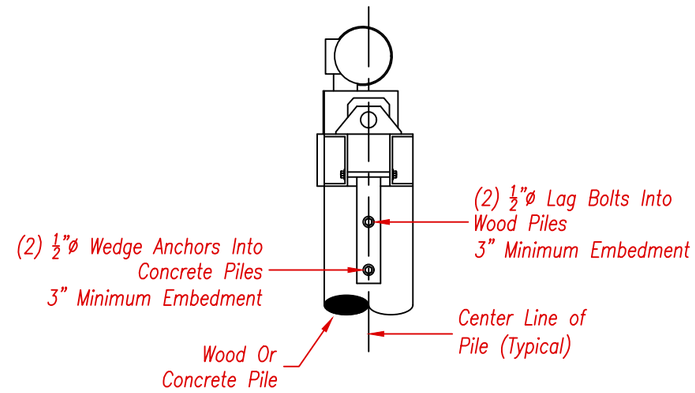
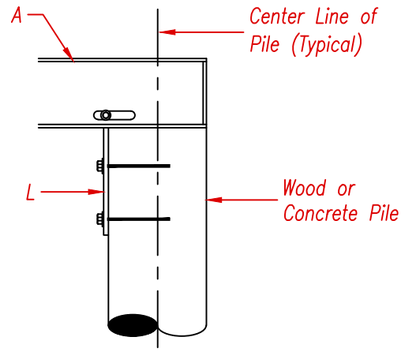
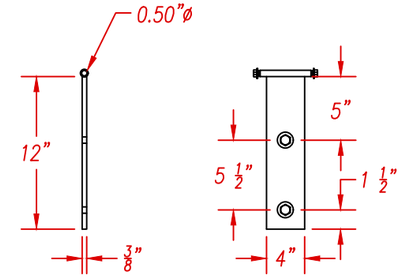


Cross Section A–A

Scale: 3/8" = 1'=0"







Mounting Bracket Detail

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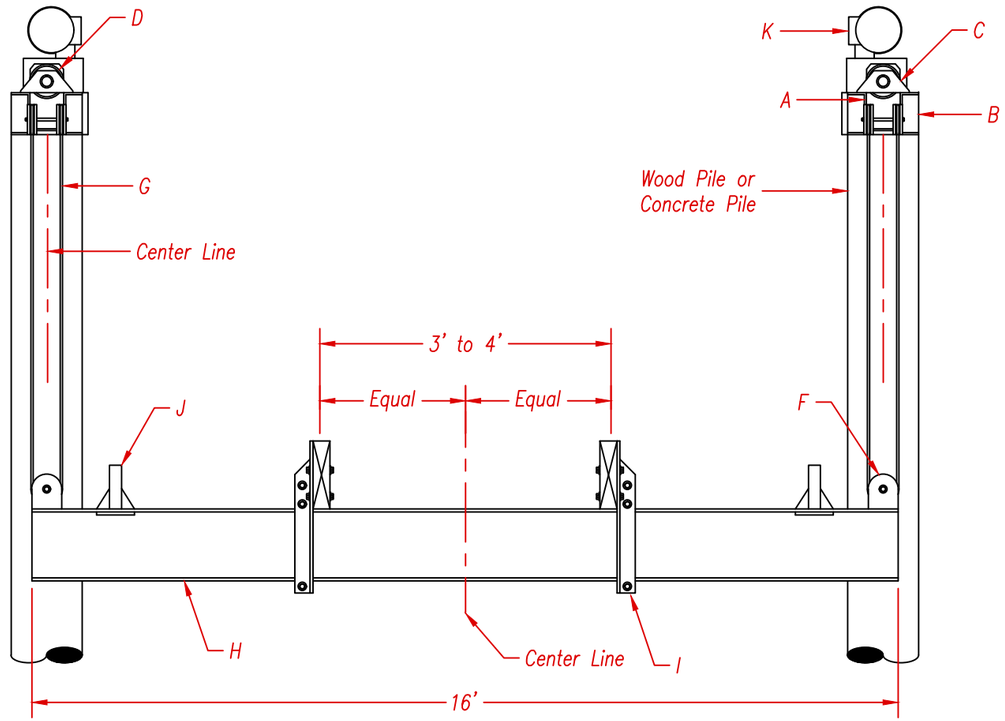

Cross Section B-B

Scale: 3/8" = 1'=0"

Components

Mark	Component Description	Material
A	Top Carrier Assembly (2) Channels Required Per Carrier Assembly	AA CS 6 X 3.63, Length = 4'
B	Carrier Beam End Plate	$\frac{1}{4}$" x 6" Flat Bar, Length = 9"
C	Drive Shaft Bearing Block	Aluminum Block - 2" x 3" Flat, Length = 8"
D	Drive Shaft	6" Diameter Solid Aluminum Winder
E	Top Carrier Flange Connector Plate	$\frac{1}{4}$" x 2" Flat Bar, Length = 12"
F	Sheave Pulley Plate	$\frac{3}{8}$" x 6" High Flat Bar x 5" Long with 5" Diameter Pulley
G	Stainless Steel Wire Rope	$\frac{3}{8}$" Diameter 7 x 19 Stainless Steel IWRC Type 304 Wire Rope
H	Lifter Beam	AA 12x14.3, D = 12", Bf = 7", Tf = 0.62", Tw = 0.31", L = 16'
I	Bunk Bracket Support	Angle $\frac{3}{8}$" x 2" x 2" x 22" Long Each Side of Lifter Beam
J	Guide Post Socket	3" Diameter (Nominal) Schedule 80 Aluminum Pipe
K	Motor and Gear Box	2 Horse Power With Brake, Double Worm Gear Box
L	Top Carrier Connector	Bracket Plate $\frac{3}{8}$" x 4" x 12" Long

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General Notes:

- Design in accordance with Florida Building Code, 7th Edition (2020).
- This lifting structure has been designed to withstand wind loads associated with speeds of V (ult) = 180 MPH, (3 Second Gust) Exposure 'D' without a boat on the lift per ASCE 7-16 using above ground sign/wall method. The lifting structure including boat has been designed to withstand wind speeds of V (sustained) = 73 MPH, remove boat when winds approach this speed or for any named storm event. Boat shall not be stored on lift during high wind events.
- Do not scale drawings for dimensions. Licensed Contractor to verify location of existing utilities prior to commencing work. The Licensed contractor shall install and remove all shoring and bracing as required for the proper installation of the work. Licensed Contractor to obtain all permits as necessary from all Local, State, and Federal agencies.
- Aluminum: Material 6061 T6 Aluminum, all welds are minimum full fillet weld using 5556 filler 14 full fillet weld using 5556 filler alloy, all welding must conform to AISC steel construction manual currently adopted edition as inspected and verified by others. The contractor is responsible for insulating aluminum members from dissimilar metals to prevent electrolysis. Aluminum members in contact with concrete and wood shall be protected by "Koppers Bituminous Paint" or Polyethylene Tape UHMW (ultra-high molecular weight). 11.7 mils (0.30 mm) min. total thickness in accordance with current Florida Building Code.
- All anchors to be Hilti Brand or Approved Equal. All bolts shall be hot dipped galvanized or stainless steel & meet the requirements of ASTM A304 with hardened washers and hex nuts. Washers shall be used between wood & bolt head & between wood & nut. Where generic fasteners are labeled, capacities shall be equal to or greater than Hilti Kwik Bolt II or Red Head thru bolts SAE Grade 5 or better. Embedment depths specified herein are depths into solid substrate and do not included thickness of other finishes.
- MW Engineering Inc. has no control of the manufacturing, performance, or installation of this product. These generic plans were engineered in accordance with accepted engineering practices and data provided by the manufacturer. Use of this specification by contractor and permit holder Et al. indemnifies and saves harmless the engineer for all costs and damages from material fabrication, system erection, and construction practices beyond that which is called for by codes and from deviations from this design.
- Piles shall be driven to minimum allowable bearing capacity of 10 tons minimum 8-foot or refusal and sufficiently penetrated sand or rock strata in pre-drilled or punched holes to support lift capacity, weight and loads. Each pile to carry commensurate load (Factor of Safety of 2). Sub-surface conditions can vary greatly.
- The contractor of record shall verify pile type, installation, and driving in compliance with FBC 7th ED (2020). Wood piles shall be a minimum diameter of 10", Miami Dade County requires minimum diameter of 12", 2.5 lb. CCA treated in accordance with AWPA standard C18. Concrete piles shall be 12” x 12” square, attain 6000 psi compressive strength in 28 days and shall be reinforced with four - 7 /16" diameter lo-lax strands, 270 kips, and 5 ga. spiral ties.
- Pilings described herein are considered to be part of the host structure and are not part of this certification. The pilings and existing host structure, if any, must be capable of supporting the loaded system as verified by the permit holder and contractor of record. No warranty, either express or implied is contained herein.

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