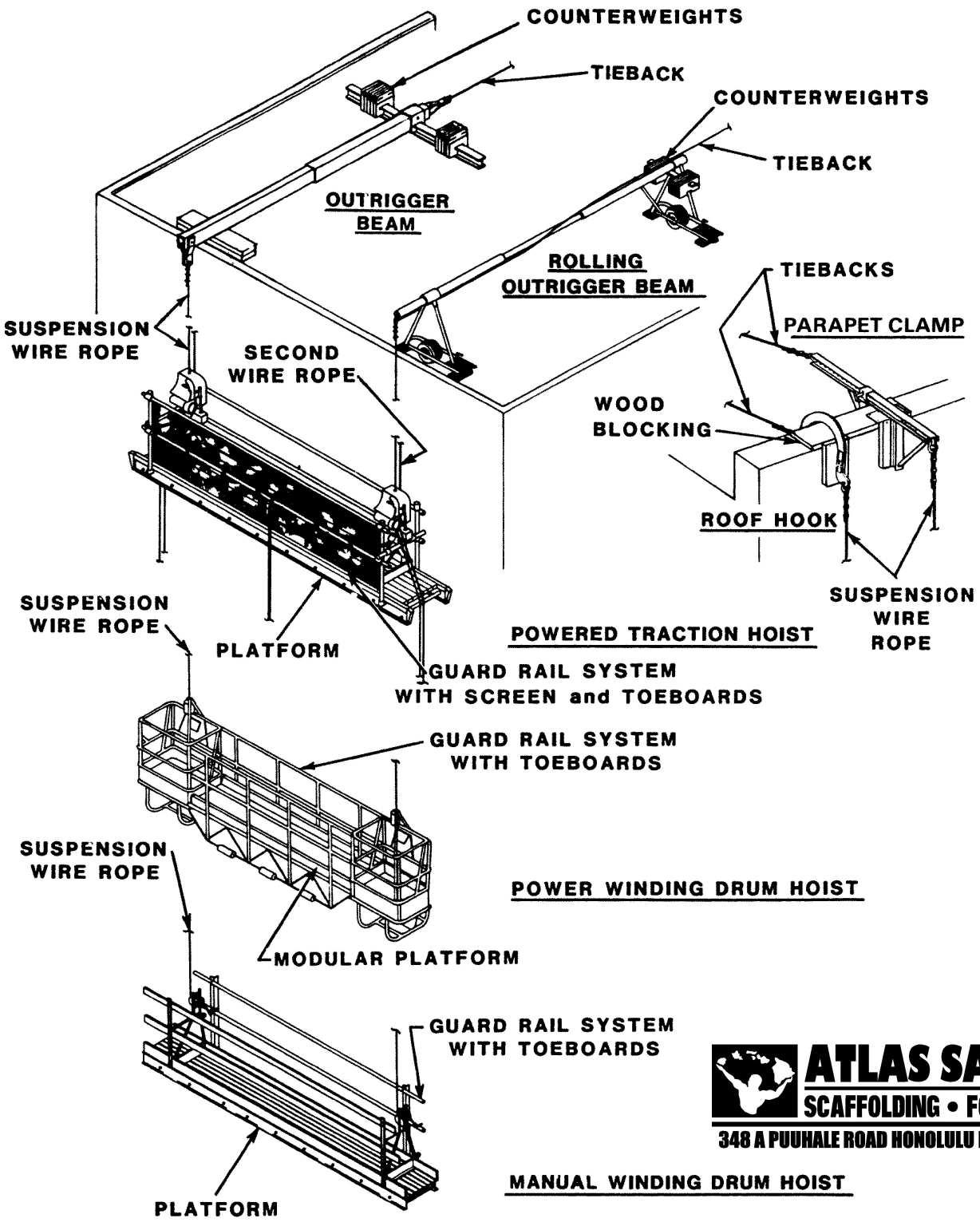
CODE OF SAFE PRACTICES
FOR
SUSPENDED SCAFFOLDING



CODE OF SAFE PRACTICES

FOR

SUSPENDED SCAFFOLDS

DEVELOPED FOR INDUSTRY BY SCAFFOLDING, SHORING & FORMING INSTITUTE (SSFI)
and SCAFFOLD INDUSTRY ASSOCIATION, INC. (SIA)

It shall be the responsibility of all users to read and comply with the following common sense guidelines which are designed to promote safety in the erecting, dismantling and use of suspended scaffolds. These guidelines do not purport to be all-inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these guidelines in any way conflict with any state, local, provincial, federal or other government statute or regulation, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each user to comply therewith.

I. GENERAL GUIDELINES

A. POST THESE SAFETY GUIDELINES in a conspicuous place and be sure that all persons who erect, use, locate, or dismantle suspended scaffold systems are fully aware of them and also use them in tool box safety meetings.

B. FOLLOW ALL EQUIPMENT MANUFACTURERS' RECOMMENDATIONS as well as all state, local and federal codes, ordinances and regulations relating to suspended scaffolding.

C. SURVEY THE JOB SITE. A survey shall be made of the job site by a competent person for hazards such as exposed electrical wires, obstructions that could overload or tip the suspended scaffold when it is raised or lowered, unguarded roof edges or openings, inadequate or missing tiebacks. Those conditions should be corrected before installing or using suspended scaffold systems.

D. INSPECT ALL EQUIPMENT BEFORE EACH USE. Never use any equipment that is damaged or defective in any way. Mark it or tag it as damaged or defective equipment and remove it from the jobsite.

E. ERECT AND DISMANTLE SUSPENDED SCAFFOLD EQUIPMENT in accordance with design and / or manufacturer's recommendations.

F. DO NOT ERECT, DISMANTLE, OR ALTER SUSPENDED SCAFFOLD SYSTEMS unless under the supervision of a competent person.

G. DO NOT ABUSE OR MISUSE SUSPENDED SCAFFOLD EQUIPMENT. Never overload platforms or hoists.

H. ERECTED SUSPENDED SCAFFOLDS SHOULD BE CONTINUOUSLY INSPECTED by the user to be sure that they are maintained in a safe condition. Report any unsafe condition to your supervisor.

I. NEVER TAKE CHANCES! IF IN DOUBT REGARDING THE SAFETY OR USE OF SUSPENDED SCAFFOLDS, CONSULT YOUR SCAFFOLD SUPPLIER.

J. NEVER USE SUSPENDED SCAFFOLD EQUIPMENT FOR PURPOSES OR IN OTHER WAYS FOR WHICH IT WAS NOT INTENDED.

K. CARE SHOULD BE TAKEN WHEN OPERATING AND STORING EQUIPMENT DURING WINDY CONDITIONS.

L. SUSPENDED SCAFFOLD SYSTEMS should be installed and used in accordance with the manufacturer's recommended procedures. Do not alter components in the field.

M. SUSPENDED PLATFORMS MUST NEVER BE OPERATED NEAR LIVE POWER LINES unless proper precautions are taken. Consult the power service company for advice.

N. ALWAYS ATTACH FALL ARREST EQUIPMENT when working on suspended scaffolds.

O. DO NOT WORK ON OR INSTALL SUSPENDED SCAFFOLDS if your physical condition is such that you feel dizzy or unsteady in any way.

P. DO NOT WORK ON SUSPENDED SCAFFOLDS when under the influence of alcohol or illegal drugs.

II. GUIDELINES FOR ERECTION AND USE OF SUSPENDED SCAFFOLD SYSTEMS

A. RIGGING:

1. WEAR FALL PREVENTION EQUIPMENT when rigging on exposed roofs or floors.

2. ROOF HOOKS, PARAPET CLAMPS, OUTRIGGER BEAMS, OR OTHER SUPPORTING DEVICES must be capable of supporting the hoist machine rated load with a factor of safety of 4.

3. VERIFY THAT THE BUILDING OR STRUCTURE WILL SUPPORT the suspended loads with a factor of safety of 4.

4. ALL OVERHEAD RIGGING must be secured from movement in any direction.

5. COUNTERWEIGHTS USED WITH OUTRIGGER BEAMS must be of a non-flowable material and must be secured to the beam to prevent accidental displacement.

6. OUTRIGGER BEAMS THAT DO NOT USE COUNTERWEIGHTS must be installed and secured on the roof structure with devices specifically designed for that purpose.

Direct connections shall be evaluated by a competent person.

7. TIE BACK ALL TRANSPORTABLE RIGGING DEVICES.

Tiebacks shall be equivalent in strength to suspension ropes.

8. INSTALL TIEBACKS AT RIGHT ANGLES TO THE FACE OF THE BUILDING and secure, without slack, to a structurally sound portion of the structure, capable of supporting the hoisting machine rated load with a safety factor of 4. **IN THE EVENT THAT TIEBACKS CANNOT BE INSTALLED AT RIGHT ANGLES,** two tiebacks at opposing angles must be used to prevent movement.

9. RIG AND USE HOISTING MACHINES DIRECTLY UNDER THEIR SUSPENSION POINTS.

B. WIRE ROPE AND HARDWARE:

1. USE ONLY WIRE ROPE AND ATTACHMENTS as specified by the hoisting machine manufacturer.

2. ASSURE THAT WIRE ROPE IS LONG ENOUGH to reach to the lowest possible landing.

3. CLEAN AND LUBRICATE WIRE ROPE in accordance with the wire rope manufacturer's instructions.
4. HANDLE WIRE ROPE WITH CARE.
5. COIL AND UNCOIL WIRE ROPE in accordance with manufacturer's instructions in order to avoid kinks or damage.
6. TIGHTEN WIRE ROPE CLAMPS in accordance with the clamp manufacturer's instructions.
7. INSPECT WIRE ROPE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT USE WIRE ROPE THAT IS KINKED, BIRDCAGED, CORRODED, UNDERSIZED, OR DAMAGED IN ANY WAY. Do not expose wire rope to fire, undue heat, corrosive atmosphere, electricity, chemicals or damage by tool handling.
8. USE THIMBLES AND SHACKLES AT ALL WIRE ROPE SUSPENSION TERMINATIONS.
9. USE J-TYPE CLAMPS OR SWEDGE FITTINGS. Do not use U-bolts. Retighten J Clamps under load and retighten daily.
10. WIRE ROPES USED WITH TRACTION HOISTS MUST HAVE PREPARED ENDS. Follow manufacturer's recommendations.
C. POWER SUPPLY FOR MOTORIZED EQUIPMENT:
1. GROUND ALL ELECTRICAL POWER SOURCES AND POWER CORD CONNECTIONS and protect them with circuit breakers.
2. USE POWER CORDS OR AIR HOSES OF THE PROPER SIZE THAT ARE LONG ENOUGH for the job.
3. POWER CORD OR AIR HOSE CONNECTIONS MUST BE RESTRAINED to prevent their separation.
4. USE STRAIN RELIEF DEVICES TO ATTACH POWER CORDS OR AIR SUPPLY HOSES TO THE SUSPENDED SCAFFOLD to prevent them from falling.
5. PROTECT POWER CORDS OR AIR HOSES AT SHARP EDGES.
6. USE GFI WITH POWER TOOLS.
D. FALL ARREST EQUIPMENT:
1. EACH PERSON ON A SUSPENDED SCAFFOLD must be attached to a separate fall arrest system unless the installation was specifically designed not to require one.
2. EACH LIFELINE MUST BE FASTENED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS to a separate anchorage capable of holding a minimum of 5000 pounds.
3. DO NOT WRAP LIFELINES AROUND STRUCTURAL MEMBERS unless lifelines are protected and a suitable anchorage connection is used.
4. PROTECT LIFELINES AT SHARP CORNERS to prevent chafing.
5. RIG FALL ARREST SYSTEMS to prevent free fall in excess of six feet.
6. SUSPEND LIFELINES FREELY without contact with structural members or building façade.
7. USE LIFELINES OF SIZE AND CONSTRUCTION that are compatible with the rope grab use.
8. ASSURE A PROPERLY ATTACHED ROPE GRAB IS INSTALLED ON EACH LIFELINE IN THE PROPER DIRECTION. Install in accordance with the manufacturer's recommendations.
9. KEEP ROPE GRAB POSITIONED ABOVE YOUR HEAD LEVEL.
10. USE ONLY FULL BODY HARNESSES of the proper size and that are tightly fastened.
11. ASSURE FULL BODY HARNESS HAS LANYARD attachment with D-ring at the center of your back.
12. CONSULT FALL PROTECTION SUPPLIER FOR INSPECTION PROCEDURE. INSPECT FALL PROTECTION ANCHORAGE / EQUIPMENT BEFORE EACH USE.
13. WHEN A SECONDARY WIRE ROPE SYSTEM IS USED, a horizontal lifeline secured to two or more structural members of the scaffold in lieu of vertical lifelines.
E. DURING USE:
1. USE ALL EQUIPMENT AND ALL DEVICES in accordance with the manufacturer's instructions.
2. DO NOT OVERLOAD, MODIFY, OR SUBSTITUTE EQUIPMENT.
3. BEFORE COMMENCING WORK OPERATIONS preload wire rope and equipment with the maximum working load, then retighten wire rope rigging clamps and recheck rigging to manufacturer's recommendations.
4. INSPECT ALL RIGGING EQUIPMENT AND SUSPENDED SCAFFOLD SYSTEMS DAILY.
5. INSPECT WIRE ROPE DURING EACH ASCENT OR DESCENT FOR DAMAGE.
6. USE CARE TO PREVENT DAMAGE TO EQUIPMENT by corrosive or other damaging substances.
7. CLEAN AND SERVICE EQUIPMENT REGULARLY.
8. ALWAYS MAINTAIN AT LEAST (4) FOUR WRAPS OF WIRE ROPE ON DRUM TYPE HOISTS.
9. DO NOT JOIN PLATFORMS unless the installation was designed for that purpose.
10. ONLY MOVE SUSPENDED SCAFFOLDS HORIZONTALLY WHEN NOT OCCUPIED.
11. WHEN RIGGING FOR ANOTHER DROP assure sufficient wire rope is available before moving the suspended scaffold system horizontally.
12. WHEN WELDING FROM SUSPENDED SCAFFOLDS:
a. Assure platform is grounded to structure.
b. Insulate wire rope above and below the platform.
c. Insulate wire rope at suspension point and assure wire does not contact structure along its entire length.
d. Prevent the bitter end from touching the welding ground.

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THE INFORMATION ABOVE CAN BE FOUND ON-LINE AT: http://www.ssfi.org/sp201.pdf.

NOTE: THE CODE OF SAFE PRACTICES **DOES NOT** SUPERCEDE LOCAL OSHA REGULATIONS. THE HAWAII OSHA REGULATIONS FOR CONSTRUCTION MAY BE OBTAINED FROM THE FOLLOWING LOCAL OSHA OFFICES:

OAHU (MAIN OFFICE):
Occupational Safety & Health Division
830 Punchbowl Street Room 423
Honolulu, Hawaii 96813
(808) 586-9100

KONA:
Kona District Office
Post Office Building, Room 2087
Kealakekua, Hawaii 96750
(808) 322-4808

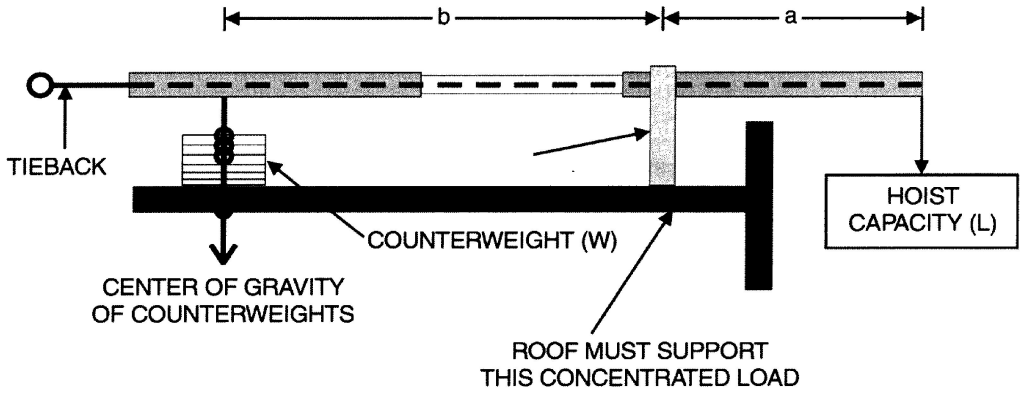
MAUI:
Maui District Office
2264 Aupuni Street
Wailuku, Hawaii 96793
(808) 243-5322

KAUAI:
Kauai District Office
3060 Eiwa Street, Room 302
Lihue, Hawaii 96766
(808) 274-3351

HILO:
Hawaii District Office
75 Aupuni Street, Room 108
Hilo, Hawaii 96820
(808) 974-6464

ON-LINE:
HIOSH
Part 3: Construction Standards
http://hioshweb.inets.com/docmanage.asp?ID=9

COUNTERWEIGHT FORMULA $W = \frac{(La)4}{b}$



W = COUNTERWEIGHT
L = LOAD CAPACITY OF HOIST
a = ARM REACH
b = BACKSPAN DISTANCE (Distance between the fulcrum point and the center of the counterweights)
4 = Safety Factor (4:1)

NOTE: Counterweights must be a nonflowable material, and they must be attached to the outrigger beam

Always use taut tie back wire ropes capable of holding the full load.