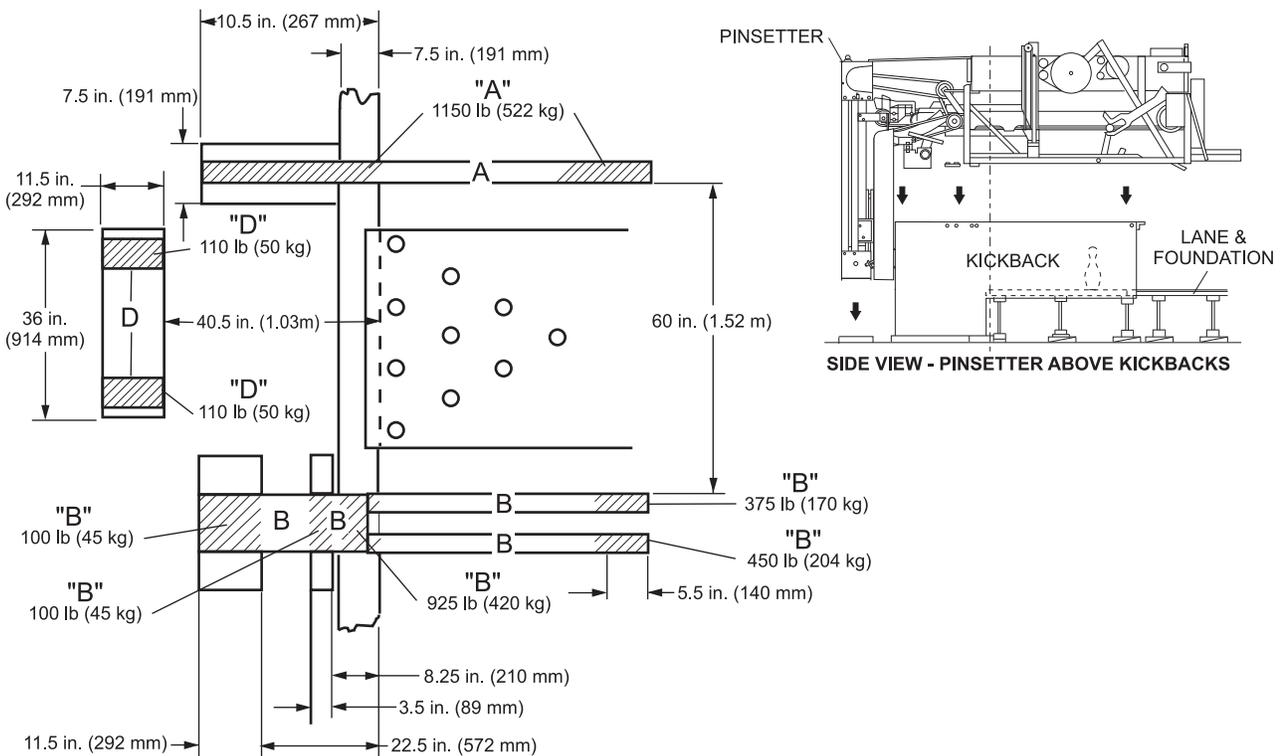
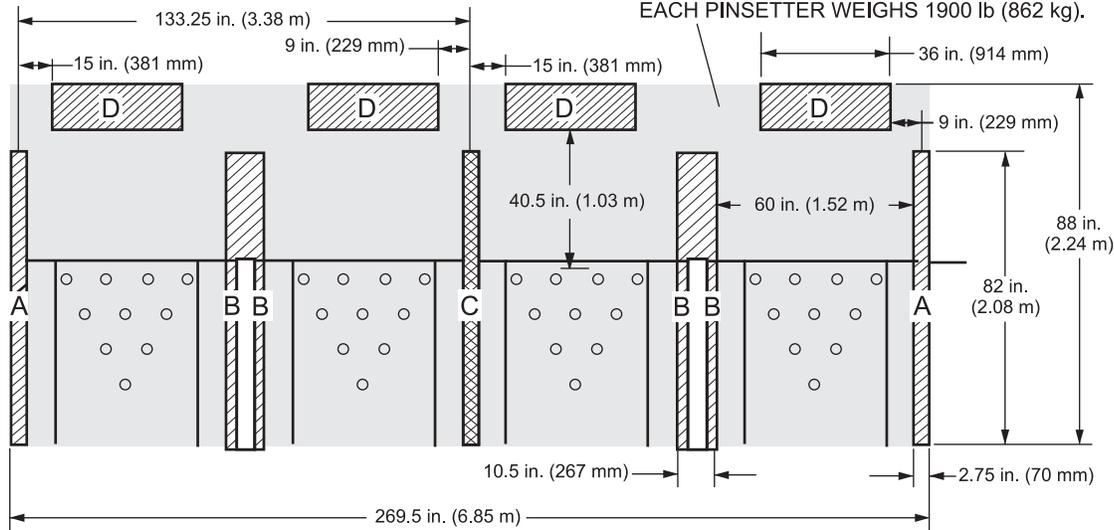


FLOOR LOADING

Pinsetter Area

I NOTE: AVERAGE EQUIPMENT LOAD FOR 4 LANES (88" X 269.5") WITH PINSETTER IS 10,200 lb (4627 kg) OR 62 lb/ft² (303 kg/m²). EACH PINSETTER WEIGHS 1900 lb (862 kg).

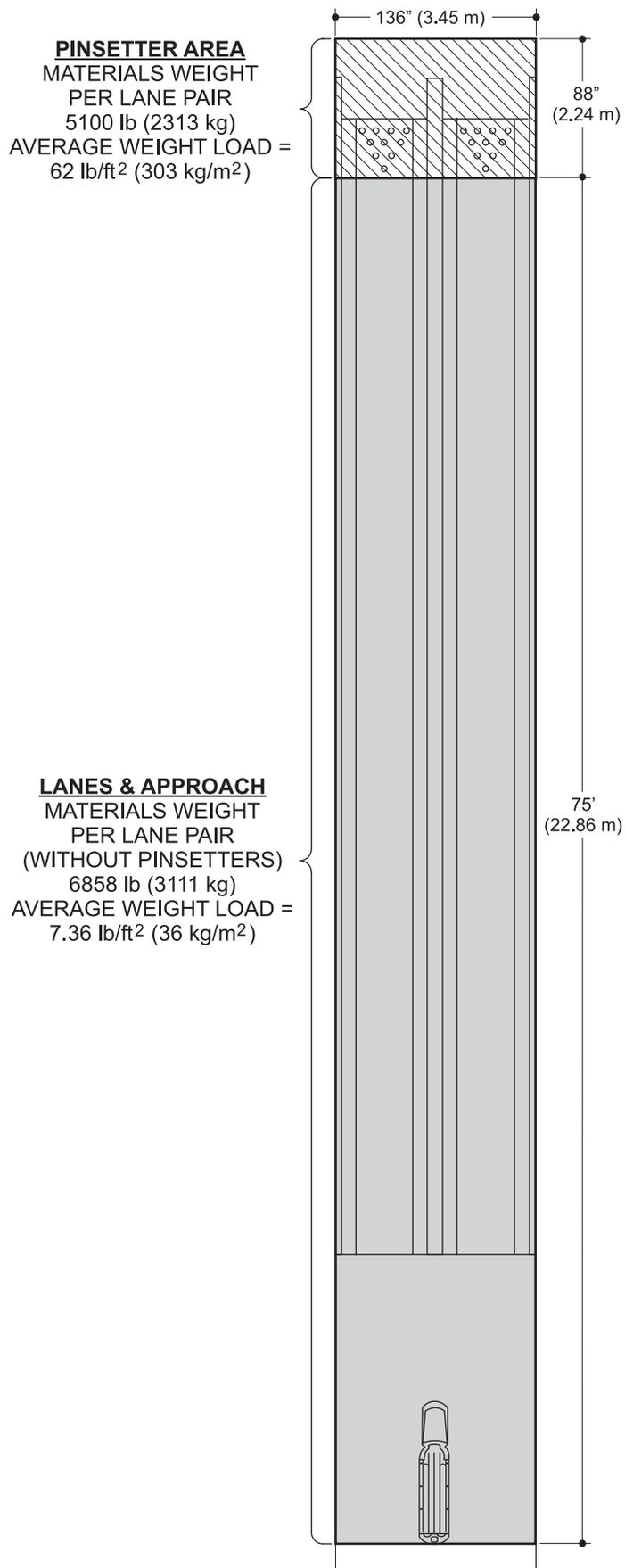


LEGEND:

- A. LOADING OF 1150 POUNDS (522 kg)
- B. LOADING OF 1950 POUNDS (885 kg)
- C. LOADING OF 2150 POUNDS (975 kg)
- D. LOADING OF 220 POUNDS (100 kg)

I NOTE: WEIGHT BEARING CAPACITY OF THE FLOOR WILL BE THE RESPONSIBILITY OF THE CUSTOMER. CUSTOMER MUST SECURE CERTIFICATION BY A REGISTERED ARCHITECT THAT THE BUILDING STRUCTURE IS ADEQUATE TO SUPPORT THE MACHINES. WHEN FIGURING THE STRENGTH OF AN EXISTING BUILDING OR THE DESIGN OF A NEW BUILDING, THE MACHINE SHOULD BE CONSIDERED AS A DYNAMIC LOAD.

Pinsetter Area and Lane & Approach Area



FLOORS

Concrete Floor

Bowling lanes are installed on a waterproof, reinforced concrete slab poured over compacted fill. In the pit and lane area, a minimum of 4" (102 mm) thick concrete is required. In the lane area, the surface **must be power-troweled and level to within 1/2" (13 mm)**. Care must be exercised to maintain a close tolerance (1/2" or 13 mm) on levels to avoid excessive shimming on lane foundations. Due to size, these floors are usually poured in strips rather than in one pour. Be sure to "key" the concrete to insure the waterproof quality and to avoid "heaving" at a later date.

i *NOTE: Customer is responsible for paying additional labor and shimming material if the lane area is greater than 1/2" (13 mm) from being level.*

The need for, type, and location of expansion joints must be determined by the architect. **Your architect or engineer must certify on the floor loading certificate, provided by Brunswick, that the floor will meet our requirements in this area.**

i *IMPORTANT!: Concrete in bowlers' seating area should be thick enough to accept a 2-1/2" (64 mm) anchor for seating and other related equipment.*

Vapor Barrier

Brunswick **REQUIRES** the concrete floor be poured over a properly installed vapor barrier. The polyethylene materials can be used for this in most cases. Extra care is needed in placing the concrete to prevent the barrier from being torn or punctured. It should also be placed so it will not be punctured when bowling equipment is fastened to the floor.

i *NOTE: The customer will be responsible for any additional material if the floor does **not** have a vapor barrier, for example - treated lumber in between Brunswick I-joist and concrete*

Termite Proofing

In some areas where the problem exists, the soil beneath the building should be treated to prevent termite penetration. Consult your local pest control authority.

Pipes, Drains, etc.

Pipes, drains, or ducts which could break or require replacement should never be placed in or below the concrete in the lane area.

Before pouring concrete, all conduit or wireways must be securely placed and checked for accuracy of location.

i *NOTE: Refer to GS Pinsetter and Vector Center Network System Pre-Installation manuals for proper placement of conduits. As always, the Brunswick Service department is available for clarification.*

Hardening and Dust-proofing

The pinsetter area and service aisles should be power-troweled, hardened, and dust-proofed concrete for reasons of maintenance. **All concrete not covered with tile or floor covering should also be permanently sealed.**

Drying Time

Since wood products can be affected by excess moisture, it is the customer's responsibility to provide conditions conducive to installation on site. Concrete drying time can vary. Consult your architect and cement contractor to insure cement is completely dry.