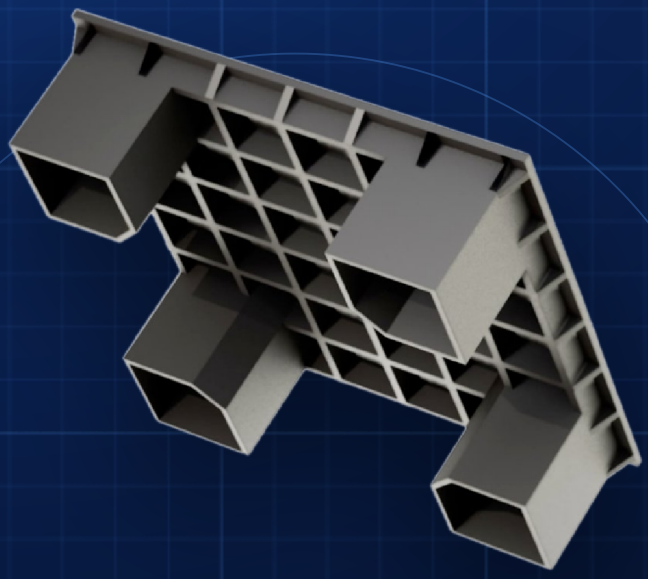
CYBERFLOOR

INTELLIGENT ACCESS FLOORING

TECHNICAL PAPER
OCTOBER 2026



Steel Access Floor vs CyberFloor.

A technical comparison of wiring capacity, outlet flexibility and building impact.

~50mm	<15kg	36,000	20.74m³
AGAINST 300–600MM	PER M², AGAINST 60–65	OUTLET POSITIONS PER 1,000M²	CABLE CAPACITY PER 1,000M²

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01 BACKGROUND

Built for computer rooms. Now used in offices.

Standard access floors were developed for mainframe computer rooms and air-conditioning plenums. Most offices only need cabling at the workstation.

The standard module is a 600 × 600mm steel panel, usually concrete-filled, raised 300 to 600mm above the structural slab. Panels weigh up to 65kg per square metre.

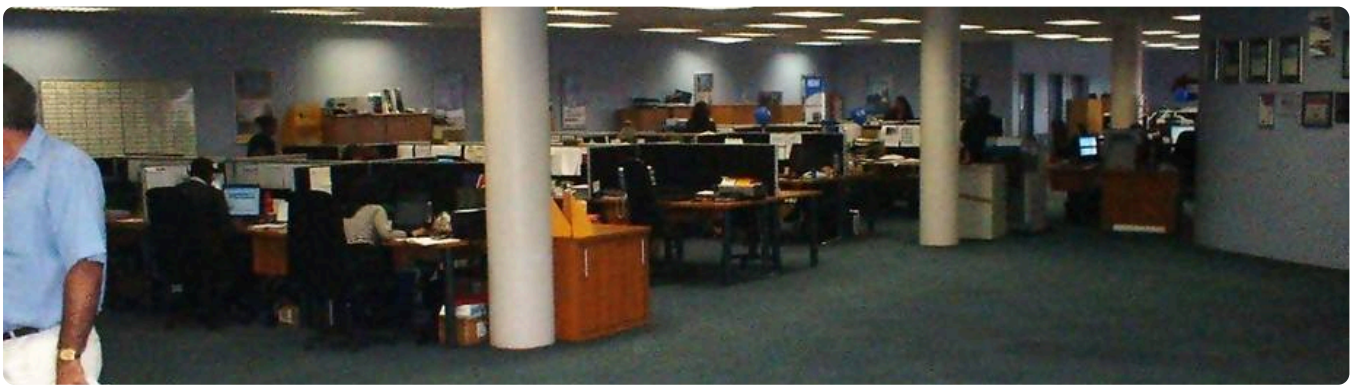
That height and weight shape the building around them: the slab-to-slab height, the structural loading and the entry ramps all have to allow for the floor. In existing buildings this makes retrofitting difficult.

CyberFloor was developed as a wiring floor for the open-plan office, by office planners and electrical consultants familiar with traditional access floors. It works with standard 500 × 500mm carpet tiles and stands about 50mm above the slab.

It carries CSIR certification as “deemed to comply” with SABS 0400 (Ref. 59869/32) and was load tested at the University of the Witwatersrand.

02 SIDE BY SIDE

METRIC	STANDARD STEEL ACCESS FLOOR	CYBERFLOOR
Height	300–600mm	**About 50mm**
Weight	60–65kg/m²	**Under 15kg/m²**
Module	600 × 600mm steel panel	**Pedestal grid under 500 × 500mm carpet tiles**
Outlet positions (per 1,000m²)	About 2,777 to 11,111	**Up to 36,000**
Cable capacity (per 1,000m²)	7.68m³ (cable trays)	**20.74m³**
Weight added to 1,000m²	About 60,000kg	**Under 15,000kg**
Fixed to the building	Yes	**No. Removable and reusable**
Best suited to	Computer rooms, air-conditioned plenums, custom-designed headquarters	**Open-plan offices, new builds and retrofits**



CyberFloor in daily use: Drive Control Corporation, Linbro Park.

Figures are for a 1,000m² installation. Outlet positions for standard floors depend on counting method, from about 2,777 (corner points shared by neighbouring tiles) to 11,111 (each corner counted per tile).

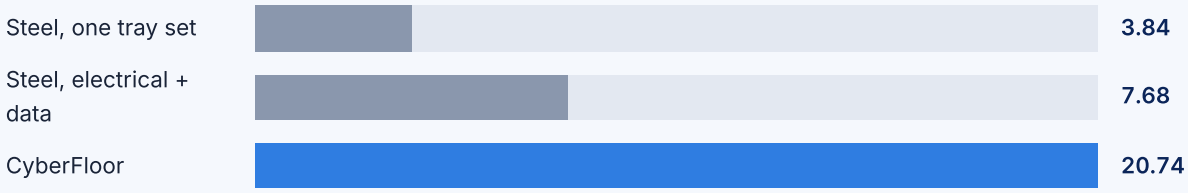
03 WIRING CAPACITY

More room for cable, at a fraction of the height.

A standard floor carries cable in trays set at about 2m intervals. In 1,000m² (about 31.6m × 31.6m), 100 × 75mm trays at 2,000mm intervals give about 16 runs of 32m, or 3.84m³. With separate trays for electrical and data cable, the total is 7.68m³.

Each CyberFloor pedestal provides 160 × 80 × 45mm of cable space, or 0.000576m³. At 36,000 pedestals per 1,000m² that totals 20.74m³.

Cable capacity per 1,000m² (m³)



04 OUTLET FLEXIBILITY

Plug in wherever the desk goes.

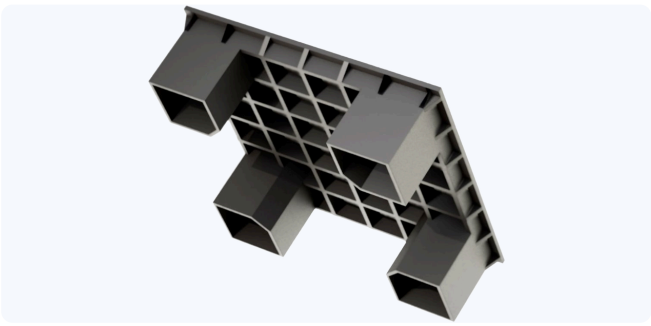
With a standard floor, outlet positions are fixed before installation, because holes are drilled in the panels. Positions sit at the corners of each 600 × 600mm tile, and the tile can be rotated to use another corner. CyberFloor lets cable and outlets come up at any of 36 positions per square metre, so a layout change does not need new panels.

Possible outlet positions per 1,000m²





Cable bundles beneath a lifted section.



The pedestal seen from underneath: the cable space in each unit.

05 BUILDING IMPACT

A floor the building does not have to plan around.

Height

A 300mm floor lowers the finished floor-to-ceiling height by 300mm. In an existing building that can reduce the usable space and call for ramps at entries. CyberFloor reduces it by about 50mm, so the ramps are short and doors can be trimmed on site.

Weight

At 60kg per square metre, a standard floor adds about 60,000kg to 1,000m², which must be allowed for in the structural design. CyberFloor adds under 15,000kg for the same area.

06 ON SITE

Quick to lay, late in the programme.

Fewer clashes with other trades

A standard floor installed early can obstruct ceiling, lighting and air-conditioning work, and the services underneath can be damaged. CyberFloor can go in after most other work is complete.

Simpler cabling

Cable runs are laid by lifting a line of pedestals and replacing them over the wiring. With a standard floor, whole panels come up to reach the trays.

Fast installation

A trained two-person crew installs about 250m² in two days, including training time on a first job.

Reusable

Not fixed to the building structure, CyberFloor can be lifted and used again in another location, and it is 100% reusable and recyclable.

07 WHICH FLOOR SUITS WHICH JOB

> **In short.** Where air-conditioning is delivered through the floor or the building is designed around a deep raised floor, a standard access floor is the right tool. Where the need is power, data and telephone at the workstation in an open-plan office, new or existing, CyberFloor offers more outlet positions, more cable capacity and far less height and weight.

Request a quote. Send us the area, site, new build or retrofit, finish and plan. We will come back with an indicative quote and can mark up outlet positions.

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