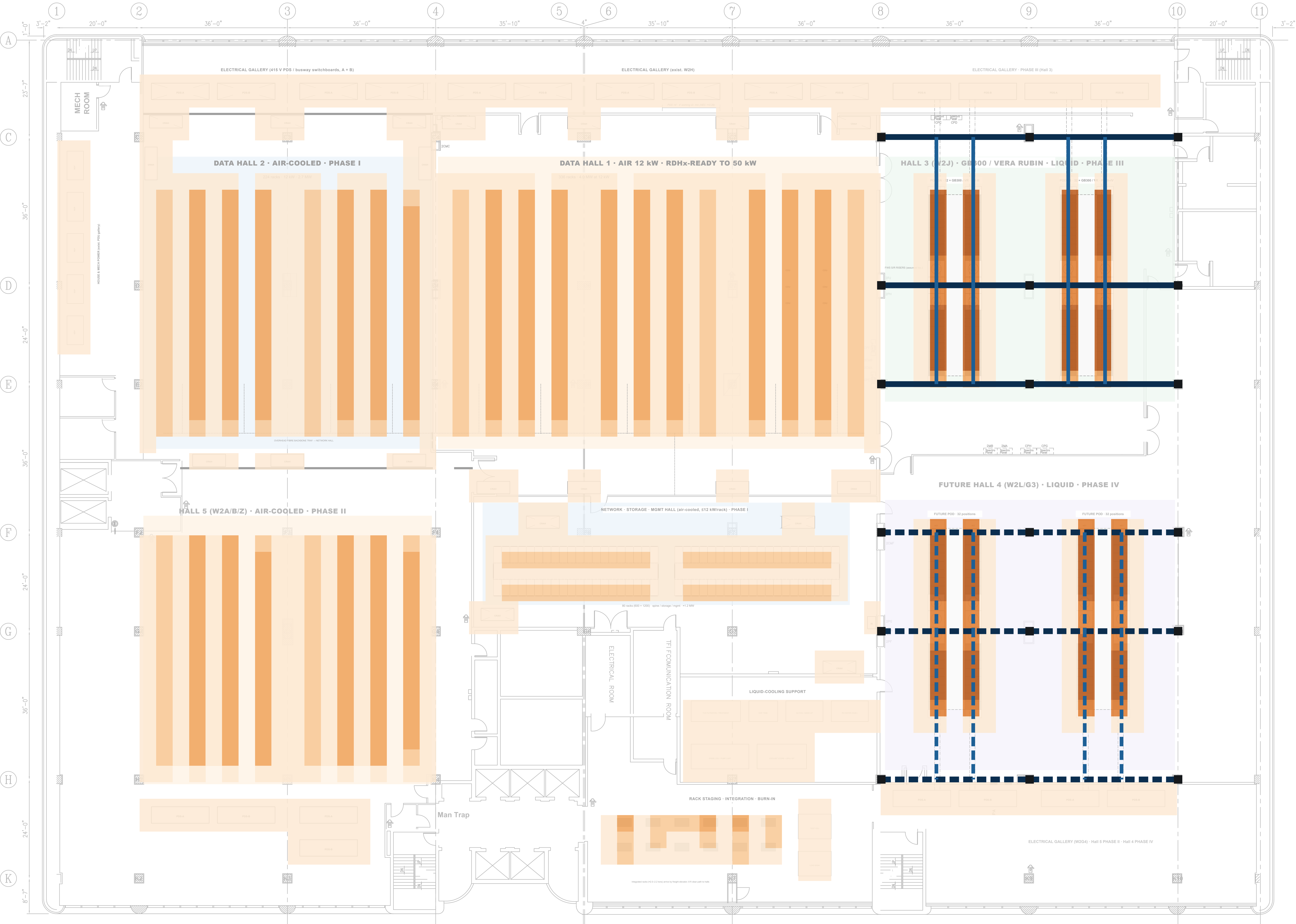


FLOOR LOADS • LEVEL 2 WHITE SPACE

Estimated equipment dead load at full build-out (Phases I–IV), psf averaged over 4 × 4 ft cells



WEST END DATA CENTER

801–809 W 4th St, Winston-Salem NC

LEVEL 2 • FLOOR LOADS (EST.)

Equipment dead load, averaged over 4 × 4 ft cells

LOAD (psf, per 4 × 4 ft cell)

- 0–100 psf
- 100–200 psf
- 200–300 psf
- 300–400 psf
- 400–500 psf
- ≥ 500 psf

Peak cell ≈500 psf. Blank = no equipment load.

EQUIPMENT (planning weights)

Item	lb each	psf on footprint
Vera Rubin rack (2.2 tons) (64)	4,400	559
Future rack, Vera Rubin (2.2 tons) (76)	4,400	559
Air-cooled server rack (12 kW) (768)	2,000	254
Air-cooled IT rack, network hall (80)	2,000	250
Network (NET) rack (64)	2,000	250
Network (NET) rack, future (8)	2,000	250
In-row CDU, ≈1.8 MW, filled (12)	6,000	375
In-row CDU, future, filled (12)	6,000	375
PDS switchboard line-up (18)	9,000	160
PDS switchboard line-up, future (4)	9,000	160
Chilled-water CRAH / fan-wall (20)	3,000	124
Humidifier (6)	500	83
Support / staging equipment (13)	3,000	107

POD AVERAGES (row area)

Pod 3A	≈297 psf
Pod 3B	≈297 psf
Pod air 2A	≈134 psf
Pod air 2B	≈134 psf
Pod air 1A	≈134 psf
Pod air 1B	≈134 psf
Pod air 1C	≈134 psf
Pod air 5A	≈134 psf
Pod air 5B	≈134 psf

NOTES

Racks: Vera Rubin ≈2.2 tons on 600 × 1200 mm; air-cooled server racks ≈1 ton. All other weights are planning estimates, not vendor data.
Equipment dead load only: excludes the floor system, slab self-weight and code live load.
Rack weight assumed spread evenly over its footprint; casters (≈1,100 lb each while rolling) are point loads.
Air halls west of line 8, liquid Halls 3–4 east (shown built).
Pod averages include CDUs and NET racks over the row-pair footprint.
For planning only. The structural engineer of record sets design loads and verifies the strengthened slab.

STEEL UNDER THE ROWS (concept)

- Beam under each liquid-cooled rack row
- Girder on a column line, into the columns
- Dashed: future halls
- Existing column

Liquid rows sit directly on their beams, so the slab only passes rack load straight down. Beams run over lines C, D, E (Hall 3: 36 + 24 ft) and F, G, H (Hall 4). The 12 kW air halls (≈1-ton racks) stay on the slab; Hall 1 RDHx doors add little. Halls 2, 5 get beams if converted. Rows end on line E (no cantilever); each CDU cluster sits centred over the D girder.
8 row beams, 12 girder runs, ≈35 tons of steel (≈18 tons by Phase III); ≈W24 beams, ≈W27–W30 girders at a 5,000 lb rack allowance. Rev D: 12 kW air first.
Sized and stamped by the structural engineer of record.

Issue: concept rev D (12 kW air-first) · 2026-10-27 · Quarry Center