Engineering Trace · Measurement brief

Civic building

Trace the concrete subtotal and the steel it covers. The structural and architectural Revit models were reopened together. Their geometry supports a concrete takeoff and a partial reinforcement measurement.

Measured quantities

Measured item	Quantity	Measurement basis
Footings	1,133.043 m³	Foundation concrete, measured separately from blinding.
Blinding	392.990 m³	Included once in the concrete subtotal.
Tie beams	86.184 m³	Structural concrete.
Columns	1,307.897 m³	All measured levels.
Beams	948.165 m³	Structural concrete.
Slabs	3,497.536 m³	Includes 65.286 m³ of provisional service-room slabs.
Core walls	726.023 m³	Structural concrete.
Concrete including blinding	8,091.838 m³	Sum of unrounded items, including the provisional slab allowance.
Footing reinforcement	55.675 t net	Subtotal of 90 populated footing rows. Four further footing rows have no net mass.

Estimating decision

Use the concrete breakdown for estimate review. Resolve the provisional slab allowance and obtain a bar schedule before ordering reinforcement.

The concrete takeoff is unpriced. Net steel is available for selected elements. The 1,787-line steel review has no cutting or purchasing weights. A procurement tonnage and contract rates are still required.

Source and scope

Structural and architectural drawings were cross-checked against the coordinated model and the private quantity register. The public figures are grouped by element type.

Read the full Civic building study and measurement basis