

Scope of Works – Roof Waterproofing (750 m²), The Playhouse Company

The contractor will strip and dispose of the failed roof waterproofing over 750 m² of roof slab, correct falls and outlets, and apply a Derbigum 4 mm torch-on membrane finished with two coats of silver (aluminium) reflective paint.

Site :The Playhouse Company Head Office Building: 29 Acutt Street; Durban

1. Preliminaries, safety and access

1. Establish site, store materials safely on the roof (load spread, wind-secured) and remove on completion.
2. Submit an OHS file under the OHS Act (Act 85 of 1993) and Construction Regulations 2014: risk assessment, fall protection plan, method statement and appointed competent persons (Only the successful bidder will be required to submit file)
3. Torch-on work under a daily hot-work permit, with a fire watch and 2 x 9 kg DCP extinguishers at each work face; no torching near timber, plant or within 1 hour of leaving site.
4. Use certified access only (SANS-compliant ladders, scaffold or guardrails). The fixed roof-access ladder pulling away from the wall must not be used until it is repaired.
5. Clear the roof of all loose debris, redundant items, sand and vegetation before work starts and keep it clear daily
6. Work in phases so that no striped area is left unprotected overnight or before rain; programme noisy work around theatre performances and rehearsals.

2. Inspection and leak investigation

1. Joint inspection with the Playhouse maintenance manager before stripping; photograph and record all defects.
2. Survey existing falls and mark ponding areas (min. 1:100 fall required).
3. Rod, flush and all roof outlets and downpipes; report blockages, cracks and leaking joints, including downpipes linked to basement ingress.
4. Trace the leak paths to the 8th floor (under the water tank), report any slab cracks or micropores.

3. Removal and disposal of old waterproofing

1. Strip all existing waterproofing membranes, coatings and paint down to the screed or concrete slab, including upstands, skirtings and around penetrations.
2. Remove all existing flashings, cover flashings, sealants and loose or debonded screed.
3. Load, cart away and dispose of all waste at a licensed landfill site; provide disposal certificates. No waste may be thrown from the roof: lower in chutes or bags.
4. Strip only what can be re-covered or temporarily protected the same day.

4. Substrate preparation and screed to falls

1. Hack off defective screed and lay a new sand-cement screed (min. 25 mm, bonded with a slurry bonding agent) to a minimum 1:100 fall to outlets, removing all ponding.
2. Repair slab cracks (cut out, prime and fill with polyurethane sealant or epoxy) and spalled or honeycombed concrete with a structural repair mortar.
3. Form 50 x 50 mm sand-cement cove fillets at all upstands, walls and plinths.
4. Grind off high spots and sharp edges; high-pressure clean; allow to dry to the moisture content set by the membrane manufacturer.

5. Stormwater outlets and downpipes

1. Clear and repair existing outlets; replace damaged outlet bodies with new 100 mm outlets with flanges compatible with torch-on membranes.
2. Repair or replace leaking downpipe sections and brackets.

6. Waterproofing system: Derbigum torch-on membrane

Applied by a Derbigum-approved applicator, strictly to the manufacturer's current specification.

1. Primer: one coat of solvent-based bituminous primer approved by the membrane manufacturer, over all surfaces to receive membrane; allow to dry.
2. Membrane: Derbigum SP4 (4 mm modified-bitumen, polyester-reinforced) torch-on membrane, fully bonded, laid from the outlets upwards so laps shed water.
3. Laps: min. 100 mm side laps and 150 mm end laps, end laps staggered; every lap torched until a continuous bitumen bead shows.
4. Upstands: membrane turned up min. 150 mm above finished roof level (or under existing copings / into chases), over cove fillets, with a separate 300 mm girth reinforcing strip at the angle.
5. Outlets: 1 m x 1 m reinforcing layer at each outlet, membrane dressed into the outlet throat and clamped.
6. Puddle-free finish: no ponding deeper than 5 mm 48 hours after rain.

7. Silver (aluminium) reflective paint

1. After the curing or weathering period set by Derbigum, clean the membrane of dust and oil.
2. Apply two coats of solvent-based aluminium (silver) reflective roof paint, compatible with bituminous membranes and approved by Derbigum so the guarantee is not voided.
3. Apply to all horizontal membrane, upstands and flashings at the manufacturer's coverage rate, second coat at right angles to the first.
4. Do not apply in rain, on wet surfaces or above 35 °C surface temperature.

8. Flashings and sealing

1. New 0.6 mm aluminium (or pre-painted Chromadek) cover flashings to all upstands, fixed into a 20 mm chase with stainless steel fixings at max. 300 mm centres.
2. Seal the top of all flashings with UV-stable polyurethane sealant over a backer rod.

9. Testing and inspection

1. Hold points for inspection by the Playhouse representative: after stripping, after screed and falls, after priming, after membrane, after silver paint.
2. Flood test each completed section with 50 mm water for 48 hours where the structure allows; otherwise a 2-hour hose test. Check ceilings below for leaks.
3. Repair any failure and retest at the contractor's cost.

10. Guarantee and handover

1. Minimum 10-year joint manufacturer and applicator guarantee on the waterproofing system.
2. Hand over: guarantee certificate, as-built roof plan showing outlets and falls, product data sheets, waste disposal certificates and test records.
3. Leave the roof clean and free of offcuts, gas cylinders and debris.
4. Joint inspection after the first heavy rains and again at 12 months, with defects made good.

BILL OF QUANTITIES

The Playhouse Company (29 Acutt Street; Durban) – Roof Waterproofing: removal of old waterproofing, Derbigum torch-on membrane and silver paint

Measurement basis

Roof area (m²)		750
Upstand / parapet length (m) – assumed perimeter of a square roof of this area		110
Existing roof outlets (No.) – provisional		6

Item	Description	Unit	Qty	Rate (R)	Amount (R)
1	PRELIMINARIES, SAFETY AND ACCESS				
1.1	Site establishment, material storage on roof (load-spread and wind-secured) and de-establishment	Sum	1		
1.2	OHS file to OHS Act 85 of 1993 and Construction Regulations 2014: risk assessment, fall protection plan, method statement, competent person appointments	Sum	1		
1.3	Appointment of part time health and safety officer	Sum	1		
	Total carried to summary – Section 1				

2	REMOVAL AND DISPOSAL OF OLD WATERPROOFING				
2.1	Strip existing waterproofing membrane, coatings and paint from horizontal roof surfaces down to screed/slab	m²	750		
2.2	Strip existing waterproofing from upstands, parapets and skirtings, average 300 mm girth	m	110		
2.3	Remove existing flashings, cover flashings and sealants	m	110		
2.4	Load, lower (chutes/bags), cart away and dispose of all stripped waterproofing and debris	m²	750		
	Total carried to summary – Section 2				

3	SUBSTRATE PREPARATION AND SCREED TO FALLS				
3.1	PROVISIONAL: Hack off loose, debonded or defective screed and dispose	m²	750		
3.2	PROVISIONAL: New sand-cement screed, min. 25 mm, on slurry bonding coat, laid to min. 1:100 fall to outlets	m²	750		
3.3	PROVISIONAL: Cut out, prime and seal cracks in roof slab/screed	m	50		
3.4	PROVISIONAL: Break out and repair spalled or honeycombed concrete with structural repair mortar	m²	10		
3.5	50 x 50 mm sand-cement cove fillets at upstands, walls and plinths	m	110		
3.6	Grind high spots and high-pressure clean prepared surfaces; dry to manufacturer moisture limit	m²	750		
	Total carried to summary – Section 3				

4	STORMWATER OUTLETS AND DOWNPIPES				
4.1	Clear, flush and repair existing roof outlets	No.	6		
4.2	PROVISIONAL: Replace damaged existing outlet bodies with new 100 mm outlets with torch-on compatible flanges	No.	6		
4.3	PROVISIONAL: Redirect downpipes discharging onto 5th floor slab and Theatre grey roof: 110 mm uPVC downpipe incl. bends, brackets and connection to stormwater	m	30		
4.4	PROVISIONAL: Repair or replace leaking downpipe sections and brackets	m	20		
	Total carried to summary – Section 4				

5	WATERPROOFING SYSTEM – DERBIGUM TORCH-ON MEMBRANE				
5.1	Solvent-based bituminous primer (manufacturer-approved), one coat, to horizontal surfaces	m²	750		
5.2	Ditto to upstands, 300 mm girth	m	110		
5.3	Derbigum SP4 4 mm polyester-reinforced torch-on membrane, fully bonded, 100 mm side / 150 mm end laps, to horizontal roof surfaces	m²	750		
5.4	Ditto to upstands, min. 150 mm above finished roof, over cove fillet, incl. 300 mm girth reinforcing strip at angle	m	110		
	Total carried to summary – Section 5				

6	SILVER (ALUMINIUM) REFLECTIVE PAINT				
6.1	Clean membrane and apply two coats of solvent-based aluminium (silver) reflective roof paint, Derbigum-approved, to horizontal surfaces	m²	750		
6.2	Ditto to upstands and flashings, 450 mm girth	m	110		
	Total carried to summary – Section 6				

7	FLASHINGS AND SEALING				
7.1	0.6 mm aluminium (or pre-painted Chromadek) cover flashing, 150 mm girth, into 20 mm chase, stainless fixings at 300 mm centres	m	110		
7.2	UV-stable polyurethane sealant on backer rod to top of flashings	m	110		
	Total carried to summary – Section 7				

Item	Description	Unit	Qty	Rate (R)	Amount (R)
8	TESTING AND INSPECTION				
8.1	Flood test, 50 mm water for 48 hours (or 2-hour hose test where structure does not allow), incl. inspection of ceilings below	m²	750		
8.2	Attendance at five inspection hold points	Sum	1		
	Total carried to summary – Section 8				
9	GUARANTEE AND HANDOVER				
9.1	Minimum 10-year joint manufacturer and applicator guarantee	Sum	1		
	Total carried to summary – Section 9				
	SUMMARY				
Section	Description				Amount (R)
1	PRELIMINARIES, SAFETY AND ACCESS				
2	REMOVAL AND DISPOSAL OF OLD WATERPROOFING				
3	SUBSTRATE PREPARATION AND SCREED TO FALLS				
4	STORMWATER OUTLETS AND DOWNPIPES				
5	WATERPROOFING SYSTEM – DERBIGUM TORCH-ON MEMBRANE				
6	SILVER (ALUMINIUM) REFLECTIVE PAINT				
7	FLASHINGS AND SEALING				
8	TESTING AND INSPECTION				
9	GUARANTEE AND HANDOVER				
	Subtotal				
	Contingency (on subtotal)			10%	
	Total excl. VAT				
	VAT			15%	
	TOTAL INCL. VAT				

Bid Evaluation Criteria — Roof Waterproofing (750 m²), The Playhouse Company

Evaluation method

Bids are evaluated in three stages: pass/fail compliance, functionality with a 70-point threshold, then 80/20 price and specific goals. Only bids that pass a stage go to the next.

Stage 1: Administrative compliance (pass/fail)

A bid that fails any mandatory item below is non-responsive and is not scored.

#	Requirement	Evidence	Status
1.1	Form of Offer and Acceptance signed by an authorised signatory	Signed form + resolution / power of attorney	Mandatory
1.2	Fully priced BOQ: every item rated, no items altered, deleted or qualified, 10% contingency and 15% VAT unchanged	Priced BOQ	Mandatory
1.3	CIDB Grading 2SN or higher, or 2GB or higher	CRS printout, active at closing	Mandatory
1.4	Construction Management System: ICCASA accreditation	ICCASA SANS 1393 CMS certificate and latest audit report	Mandatory
1.5	Registered on the Central Supplier Database	CSD report (MAAA number)	Mandatory
1.6	Tax compliant	SARS tax compliance PIN, verified on CSD	Mandatory
1.7	Standard bidding documents completed and signed	SBD 1, SBD 4 (declaration of interest), SBD 6.1 (preference points)	Mandatory
1.8	Compulsory site meeting attended	Attendance register / certificate	Mandatory
1.9	Not on the National Treasury Restricted Suppliers or Tender Defaulters register	Checked by the employer	Mandatory
1.10	COIDA letter of good standing	Letter, valid at closing	Mandatory

The OHS file is deliberately not a bid-stage requirement, as the scope reserves it for the successful bidder.

Stage 2: Functionality (100 points, threshold 70)

Six criteria carry 100 points. A bidder needs at least 70 to go to price evaluation. Each panel member scores every criterion 0–5; the criterion's points are the average score ÷ 5 × its weight.

	Criterion	Weight (points)
1	Relevant experience	25
2	Method statement and programme	25
3	Key personnel	15
4	Health, safety and fire approach	15
5	Manufacturer approval and guarantee	10
6	Quality management and handover	10
	Total	100

Scoring scale

Score	Meaning
0	Not submitted or irrelevant
1	Poor: generic, does not address this roof
2	Below average: major gaps against the scope
3	Acceptable: meets the scope with minor gaps
4	Good: meets the scope fully and is project-specific
5	Excellent: fully project-specific, with clear added value or risk reduction

Criteria	Requirements	Score
Relevant experience (25)	Completed torch-on roof waterproofing projects in the last 5 years, each with a reference letter giving client, contact, area, value and completion date. • 5: Three or more projects of 500 m² or more, at least one with Derbigum (or equivalent APP/SBS 4 mm) on an occupied	

	public or commercial building • 4: Three projects of 500 m² or more • 3: Two projects of 500 m² or more, or three of 250–499 m² • 2: One project of 500 m² or more • 1: Only projects under 250 m² • 0: No verifiable references	
Method statement and programme (25)	A site-specific sequence and a Gantt programme. Score higher where the bid shows: • Phasing so that no stripped area is left unprotected overnight or before rain • Noisy work planned around performances and rehearsals • The joint inspection, falls survey, outlet rodding and leak trace to the 8th floor under the water tank, done before stripping • Screed to a minimum 1:100 fall, moisture testing before priming, and the membrane laid from outlets upwards with 100 mm / 150 mm laps • Handling of the water tank and pump during membrane work • All five hold points and the 48-hour flood test built into the programme	

	A realistic duration with resources matched to it	
Key personnel (15)	CVs with certified qualifications for: • Contracts manager: 5+ years on waterproofing or roofing contracts • Site supervisor: Derbigum-trained, 3+ years supervising torch-on work, full-time on site • Construction H&S officer: SACPCMP-registered (part-time acceptable)	
Health, safety and fire approach (15)	A short, site-specific outline (not the full OHS file). Score higher where it covers: • Work at height: edge protection, fall arrest and certified access, with no use of the damaged fixed roof ladder • Hot-work permits, fire watch, 2 × 9 kg DCP per face and the 1-hour rule, given the theatre's timber stage below • Lowering waste by chute or bags, and protecting the public at street level during hoisting and skip exchanges • Gas cylinder storage and load-spreading on the roof	
Manufacturer approval and guarantee (10).	• Current Derbigum approval plus a letter from Derbigum confirming it will issue a 10-year joint guarantee for this project, and that	

	the specified primer and silver paint will not void it • 3: Current approval, with a written commitment to the 10-year joint guarantee but no Derbigum letter • 0: Guarantee offered by the applicator alone, or for less than 10 years	
Quality management and handover (10).	A certified SANS 1393 construction management system or ISO 9001	