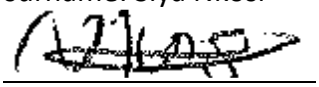
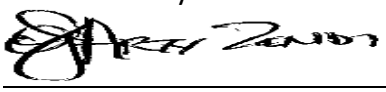
ETHEKWINI MUNICIPALITY
Occupational Health & Safety Directorate

BASELINE RISK ASSESSMENT

Document Title	Baseline Risk Assessment
Client	EThekwini Municipality – Human settlements Directorate
Project	Construction of 100 top-structure units at Umbhayi Housing Project, ward 61
Contract Number	36518 – 1H
Internal reference	BRA09/11/2026
Compiled by (Safety officer)	Name and surname: Siya Nkosi Signature:  Date: 09/11/2026
Reviewed by (Manager: Safety& Risk)	Name and surname: Arty Zondi Signature:  Date: 09/11/2026

BASELINE RISK ASSESSMENT

1. INTRODUCTION: In accordance with the Occupational Health and Safety Act, (Act 85 of 1993) the Legislator places specific requirements on an Employer. One of these is prescribed in Section 8(i) of the Act where it requires the Employer to ascertain the risks and dangers which may occur within the workplace or section of the workplace and then goes on to establish working procedures or practices.

2. PURPOSE: This is conducted to create a benchmark of the potential risks that apply to the whole project or business operation.

3. SCOPE: This assessment could be approached on a site, regional or national level concerning any facet of the business operation or process or activity.

4. REVIEW AND MONITORING PLAN

The risk assessment form part of the health and safety plan to be applied on the site and must include the following:

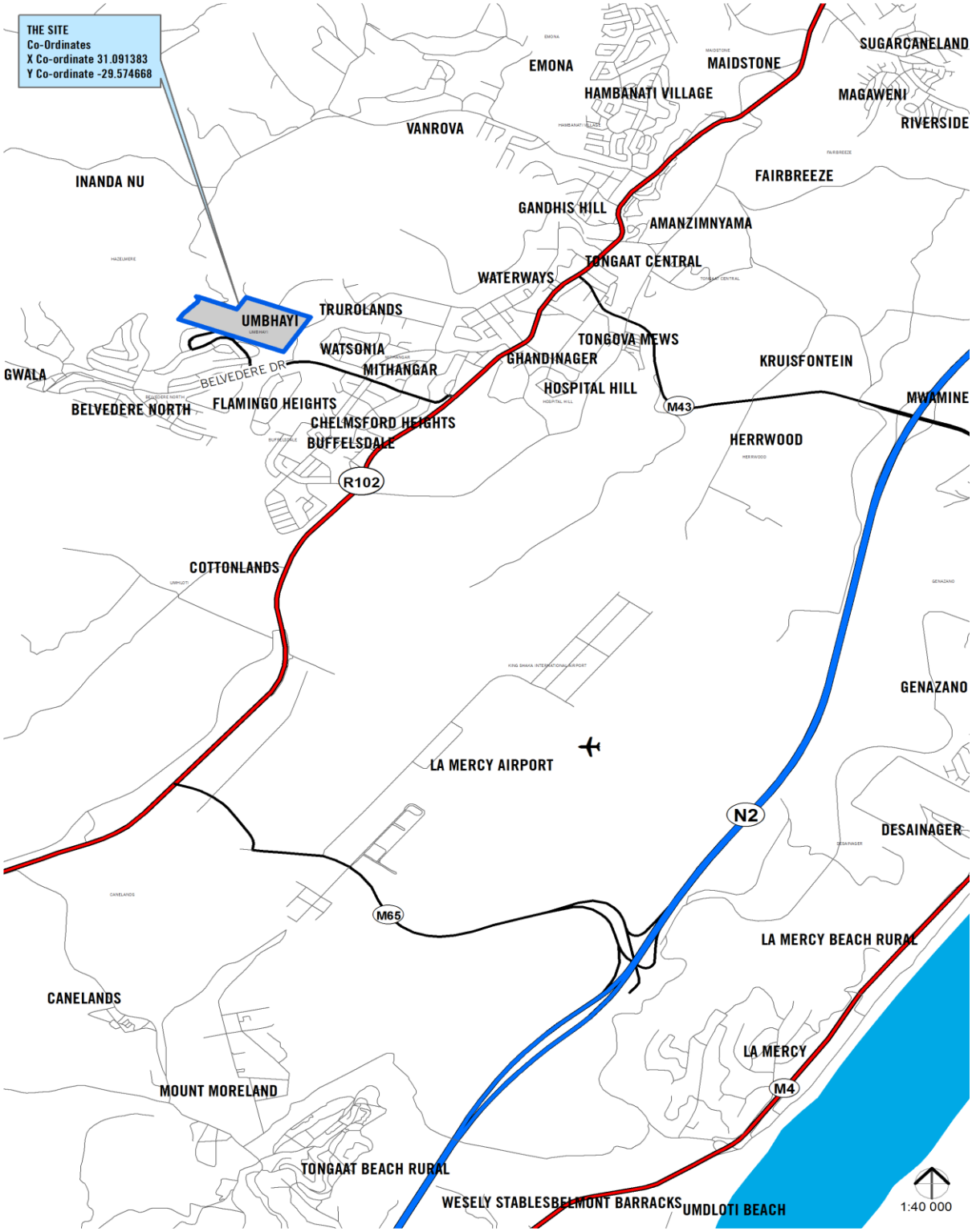
(a) The identification of the risk and hazards to which persons may be exposed.
(b) An analysis and evaluation of the risk and hazards identified based on a documented method,
(c) A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
(d) A monitoring plan; and
(e) A review plan

5. REFERENCES

(a) Tender document number 36518 – 1H

(b) Occupational Health & Safety Act and its Regulation

6. LOCALITY PLAN



SCOPE OF WORK

Local hazards that may affect the construction work

Site clearing

Site establishment

Earthworks and slab construction

Superstructure (Block work, doors and windows)

Roof construction (Trusses, tiles, insulation and ceiling)

Painting works

Electrical installations

Construction mobile plant

Site security

Public safety

Decking/ temporary works

Scaffolding

1. RISK ESTIMATION AND EVALUATION

RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

Exposure (E) How frequently does the hazardous event occur	**Risk level**
Continuously	10
Frequently (daily)	6
Occasionally (weekly)	3
Unusually (monthly)	2
Rarely (few a year)	1

Probability (P) The probability of a loss when the hazardous event does occur	**Risk level**
Frequent (happens often)	10
Probable (quiet possible)	6
Occasional (unusual, but possible)	3
Remotely possible (has happened somewhere)	1
Improbable (practically impossible)	0.5

Severity (S) Consequences of the hazardous event	**Risk level**
Catastrophic many fatalities; or interruption of longer than 2 weeks; or asset or environmental damage (or both) exceeding R100m	100
Disaster (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m)	40
Very serious (one fatality; or interruption of 6 days; or asset or environmental damage (or both) exceeding R100,000	7
Important (temporary disability; or interruption between 6 and 24 hours; or damage exceeding R10,000	3
Noticeable (first aid needed; or interruption of less than 6 hours; damage exceeding R1000)	1

Risk classification (Risk score = E x P x S)

Risk score	**Risk level**
Over 400---------5	Very high risk – discontinue operation or activity
200 to 400 ------ 4	High risk – immediate correction needed
70 to 200------- 3	Substantial risk – correction needed
20 to 70--------- 2	Possible risk – attention needed
Under 20 -------- 1	Risk accepted

BASELINE RISK ASSESSMENT WORKSHEET: IDENTIFYING EXISTING & POTENTIAL RISKS

	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level
				E	P	S		
1	**Local hazards that may affect the construction works**							
		• Heavy summer rainfall and thunderstorms • Strong coastal winds • High temperatures and humidity • Lightning storms • Steep slopes and uneven terrain • Informal pedestrian movement around the project • Criminal activity and theft of materials • Presence of snakes and insects in	• Flooding, waterlogged excavations, electrical hazards • Roof work incidents, scaffold instability, falling materials • Heat stress, dehydration, reduced concentration • Electrocution and injuries during outdoor activities • Vehicle rollover, slips, excavation instability • Public struck-by incidents • Confrontation, security risks, project delays	10	3	7	210	4

		undeveloped vegetation • Dust generated by construction vehicles during dry periods • Community unrest or protest action	• Bites, allergic reactions • Respiratory irritation and reduced visibility • Site shutdowns, damage to assets, worker safety risks					
2	**Site clearing**							
		• Bushes, long grass and vegetation • Hidden holes and uneven ground • Flying debris during brush cutting • Manual clearing activities • Dust generation • Use of brush cutters/chains aws • Unidentified underground services	• Cuts, snake bites, insect bites • Trips, falls, sprains • Eye injuries • Musculoskeletal injuries • Respiratory irritation • Cuts, amputations • Electrocution, service damage • Crushing injuries	3	3	7	63	2

		• Falling trees or branches						
3	**Site establishment**							
		• Unauthorized public access • Temporary structures • Delivery vehicles • Poor housekeeping • Improper storage of materials • Inadequate sanitation facilities • Lack of potable water • Temporary electrical supplies	• Injury to community members, theft, vandalism • Collapse, injury • Struck-by incidents • Slips, trips and falls • Collapse of stacked materials • Hygiene-related illnesses • Dehydration • Electrical shock, fire	1	6	3	18	1
4	**Earthworks and slab construction**							
		• Excavations for foundations and services • Reinforcing steel	• Falls into excavations • Impalement injuries • Skin burns, dermatitis, eye injuries	3	6	3	54	2

		protrusions • Wet concrete and cement • Concrete delivery vehicles	• Vehicle-pedestrian collisions					
5	**Superstructure (Block work, doors and windows)**							
		• Working at height • Falling blocks and tools • Brick/block cutting • Manual lifting of blocks • Unstable walls during construction • Installation of windows • Glazing activities • Improper scaffold use • Sharp edges on frames	• Falls from ladders and scaffolds • Head injuries • Eye injuries, silica dust exposure • Musculoskeletal injuries • Collapse and crushing • Cuts from glass • Lacerations • Falls and scaffold collapse • Cuts and punctures	6	6	3	108	3
6	**Roof construction (Trusses, tiles, insulation and ceiling)**							
		• Lifting trusses • Overloading	• Collapse, struck-by incidents	3	6	7	126	3

		roof structures • Working at height • Roof edges • Fragile roof sections • Strong winds • Falling roof tiles • Handling timber trusses • Nail guns and hand tools • Ceiling installation • Overhead work • Insulation materials • Collapsing incomplete roof structures	• Structural failure • Fatal falls • Falling from roof • Falls through structure • Loss of balance, falling objects • Struck-by injuries • Crush injuries • Puncture wounds • Falls from ladders • Neck injuries, falling objects • Skin and respiratory irritation • Serious injury or fatality					
7	**Painting works**							
		• Paint fumes and solvents • Chemical exposure • Flammable paints and thinners • Working from	• Respiratory illness • Skin irritation, dermatitis • Fire and explosion • Falls • Exposure to toxic	3	6	7	126	3

		ladders • Confined room painting • Spillage of paint • Eye contact with chemicals	vapours • Slips and falls • Eye injuries					
8	**Electrical installations**							
		• Damaged electrical tools • Temporary electrical systems • Drilling into hidden services • Faulty extension leads • Inadequate earthing • Use of ladders	• Electric shock • Fire and injury • Electric shock • Fire risk • Electrical injury • Unsafe ladder	3	3	7	63	2
9	**Construction mobile plant**							
		• Excavators and TLBs • Reversing vehicles/ mobile plant • Blind spots • Plant rollover • Plant	• Crushing injuries • Persons struck by vehicles/ mobile plant • Pedestrian collisions • Operator injury or fatality	6	6	7	252	4

		operating on slopes • Poor maintenance • Fuel handling • Movement near public roads	• Overturning • Mechanical failure • Fire and environmental contamination • Traffic accidents					
10	**Site security**							
		• Theft of materials • Theft of tools and equipment • Unauthorized access • Vandalism • Violent crime • Lack of perimeter control • Night-time intrusions	• Project delays and losses • Production stoppages • Injury to trespassers • Damage to completed work • Injury to workers • Public exposure to hazards • Security incidents	10	3	7	210	4
11	**Public safety**							
		• Unsecured construction area • Moving vehicles and plant • Open	• Public injury • Pedestrian impact • Falls into excavations • Serious injury • Public health	10	3	3	90	3

		excavations • Children entering site • Improper waste disposal	concerns					
12	**Decking/ temporary works**							
		• Open floor edges • Structural instability during installation • Material handling • Incompetent erectors and lack of supervision	• Fall from height, fatal injuries • Collapse of deck sections • Crush injuries, strains • Structural collapse/ failure	3	6	40	720	5
13	**Scaffolding**							
		• Incorrect assembly • Inadequate edge protection • Material storage on scaffold • Incompetent erectors	• Scaffold collapse • Falls from height • Structural overload and collapse • Scaffolding collapse/ noncompliant	3	6	40	720	5

RISK PROFILE:

Construction of 100 top-structure units at Umbhayi Housing Project, ward 61

