



ETHEKWINI MUNICIPALITY
Occupational Health & Safety Unit

BASELINE RISK ASSESSMENT

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SCOPE OF WORK

SITE ACCESS

SITE ESTABLISHMENT

TRAFFIC ACCOMMODATION

BULK EARTHWORKS

CONSTRUCTION OF SLABS

EXCAVATION WORK & BACK FILLING

DRAINAGE/SEWAGE/STORM WATER

EMERGENCY MANAGEMENT

SUB-CONTRACTOR MANAGEMENT

COMMUNITY RISK MANAGEMENT

EXISTING SERVICE

REMOVAL OF RUBBLE & LARGE TREES

DENSITY TESTING

LAND SCAPING AND GRASSING

CONSTRUCTION MOBILE PLANT & EQUIPMENT

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 to which persons may be exposed.
- (b) An analysis

5. REFERENCES

- (a) Occupational Health & Safety Act and its Regulation
- (b) Physical Inspection of the construction site

6. LOCALITY PLAN



1. RISK ESTIMATION AND EVALUATION

RISK CLASSIFICATION USING A RISK SCORE TECHNIQUE

Exposure (E) How frequently does the hazardous event occur		Risk classification
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 classification
Frequent (happens often)		10
Probable (quite 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 classification
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 classification	
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

BASELINE RISK ASSESSMENT FOR CSA 2962 CANESIDE OCC HEALTH

1	Site Access								
	Activity	Hazard	Risk	Risk Evaluation			Risk Score	Risk level	Risk Rank
				E	P	S			
	Accessing the site using construction vehicles or walking to site	Excessive speed, head on collusion, employees knocked by moving vehicles,	Accidents resulting in damage to equipment or severe injuries or death	6	6	7	252		4
	Delivering of equipment and material to the site	Roads blocked off due to community protest	Construction vehicles and equipment could be damage						
		Manual Handling and excessive lifting	Back injuries, falling of material or equipment						
2	Site Establishment	Hazards	Risk						
	Manual and mechanical clearing of the land	Dust, Snakes, Bees & Wasps.	Poisoned and death	3	3	7	63		2
	Off-loading and positioning of offices by mobile crane	Incompetent operator	Collision/impacts of mobile lifting equipment, loads and dropped loads with process plant, pipe work, electrical cables and people.						
	Fencing								
	Installation of temporary water supply, electricity,	Poor connection of							

	ablution facilities,	temporary services	Water leaks, electrocution, improper connection						
3	Traffic Accommodation								
	Installation of temporally signs Traffic diverting/Management	Knocked down by moving vehicles, poor demarcation/ displaying of signs Poor traffic management plan Incompetent traffic controllers	Personal injuries or death Road Accident	3	6	7	126		3
4	Bulk Earthwork								
	Mechanical excavation Stockpiling	Incompetent operator, Machine running out of control; Open excavation Dust, Poor stockpiling Operating mobile plant next to open excavation	Personal injury/death Property damage Mobile Plant fell into excavations Respiratory problem Obstruction of walkways	6	6	7	252		4

5	Construction of slabs								
	Pouring of concrete by ready mix truck Excavations for slab foundation Steel reinforcement Vibration Floating	Unsafe access to site and reckless driving People fall into open excavation Sharp steel edges Concrete lodge into eyes, foot contact with cement Over bending	Ready mix truck capsizing/sinking Personal injuries Body cuts Eye injury and skin dermatitis Back injuries	6	6	3	108		3
6	Drainage/Sewage/Storm water								
	Lay, bed and joint of pipes	Unsafe access to excavation Manual handling of pipes Possible pinch of fingers Engulfment of excavation	Personal injuries or death	6	6	7	252		4

7	Excavation Work & Back Filling								
	Mechanical and manual excavation Back filling mechanical and manual	Incompetent operator, Machine running out of control; Open excavation Dust, Operating mobile plant next to open excavation Unsafe tools, damage of pipes by stone backfill material	Personal injury/death Property damage Mobile Plant fell into excavations Respiratory problem	6	6	7	252		4
8	Existing Services								
	Identify the existing services	Snakes Unforeseen hazards	Poisoned and death Personal injuries	3	6	7	126		3
9	Removal of rubble and large trees								
	Mechanical and manual loading of rubble Mechanical removal of trees Removal of rubble and	Dust, Mobile plant came into contact with trucks Incompetent operator	Respiratory problem, Damage to truck body Disturbance of existing services and damage to nearby property	3	6	7	126		3

	trees to damp site	and lack of planning Reckless driving	Motor Vehicle Accident						
10	Compaction								
	Operating a bomag roller, wacker etc.	Incompetent operator, Noise, Vibration	Personal injuries and damage to property Noise Induce Hearing loss Kidney problem Body pain	6	6	3	108		3
11	Density Testing								
	Density Testing	Exposure to radiation	Health problems	3	3	3	27		2
12	Land Scaping & Grassing								
	Land scaping & grassing	Exposure to fertilizers Over bedding	Health problem Back Injuries	3	3	3	27		2
13	Construction Mobile Plant and Equipment								
	Use of Plant & Equipment on site	Incompetent operator Unsafe Plant & Equipment Collusion with other vehicles Petrol and oil spillages	Personal injuries Motor vehicle accident Environmental contamination	6	6	7	252		4
14	Emergency Management								
	Development and Implementation of an Emergency Management Plan	Failure to have a basic, site specific emergency management plan	Failure to have a basic, site specific emergency management plan may result in injury or	6	6	3	108		3

		Workers not trained in the Emergency Plan Insufficient or no emergency equipment or personnel	damage to property Workers not trained in the Emergency Plan may result in their inability to respond to emergencies Insufficient or no emergency equipment or personnel on site may result in emergencies being critical						
15	Community Risk Management								
		Failure to adequately monitor and manage the multi-faced social issues	Failure to manage social issues could result in violent protests and injury to employees and property damage	6	6	7	252		4
16	Subcontractor Management								

		Failure to adequately assess subcontractors S.H.E Management System before work commences and at regular intervals Inadequate Supervision Utilizing incompetent Subcontractors	Failure to manage subcontractors may result in injury and non-compliance to legislation Inadequate Supervision may result in a high level of employee unsafe behaviour Utilizing incompetent Subcontractors may result in accidents and property damage	6	6	3	108		3

RISK PROFILE

