



**ETHEKWINI MUNICIPALITY**  
**Occupational Health & Safety Unit**

**BASELINE RISK ASSESSMENT**

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|                          |  |
|--------------------------|--|
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| Project number           | CSA 3254 Caneside Occ Health Parkhome Clinic |
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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

|   |  |                            |
|---|--|----------------------------|
| <b>Exposure (E) How frequently does the hazardous event occur</b>   |  | <b>Risk classification</b> |
| Continuously .....  |  | 10                         |
| Frequently (daily) .....  |  | 6                          |
| Occasionally (weekly) .....   |  | 3                          |
| Unusually (monthly) .....   |  | 2                          |
| Rarely (few a year) .....   |  | 1                          |
| <b>Probability (P) The probability of a loss when the hazardous event does occur</b>  |  | <b>Risk classification</b> |
| Frequent (happens often) .....  |  | 10                         |
| Probable (quite possible) .....   |  | 6                          |
| Occasional (unusual, but possible) .....  |  | 3                          |
| Remotely possible (has happened somewhere) .....  |  | 1                          |
| Improbable (practically impossible) .....   |  | 0.5                        |
| <b>Severity (S) Consequences of the hazardous event</b>   |  | <b>Risk classification</b> |
| <b>Catastrophic</b> many fatalities; or interruption of longer than 2 weeks; or asset or environmental damage (or both) exceeding R100m ..... |  | 100                        |
| <b>Disaster</b> (few fatalities; or interruption between one and 2 weeks; or asset or environmental damage (or both) exceeding R10m) .....    |  | 40                         |
| <b>Very serious</b> (one fatality; or interruption of 6 days; or asset or environmental damage (or both) exceeding R100,000 .....             |  | 7                          |
| <b>Important</b> (temporary disability; or interruption between 6 and 24 hours; or damage exceeding R10,000 .....                             |  | 3                          |
| <b>Noticeable</b> (first aid needed; or interruption of less than 6 hours; damage exceeding R1000) .....                                      |  | 1                          |
| <b>Risk classification (Risk score = E x P x S)</b>   |  |                            |
| <b>Risk score</b>   | <b>Risk classification</b>                         |                            |
| 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<br><br>Delivering of equipment and material to the site   | Excessive speed, head on collusion, employees knocked by moving vehicles,<br><br>Roads blocked off due to community protest<br><br>Manual Handling and excessive lifting | Accidents resulting in damage to equipment or severe injuries or death<br><br>Construction vehicles and equipment could be damage<br><br>Back injuries, falling of material or equipment | 6               | 6 | 7 | 252        |            | 4         |
| 2 | Site Establishment  |  |  |                 |   |   |            |            |           |
|   | Manual and mechanical clearing of the land<br><br>Off-loading and positioning of offices by mobile crane<br><br>Fencing<br><br>Installation of temporary water supply, electricity, | Dust, Snakes, Bees & Wasps.<br><br>Incompetent operator<br><br>Poor connection of  | Poisoned and death<br><br>Collision/impacts of mobile lifting equipment, loads and dropped loads with process plant, pipe work, electrical cables and people.                            | 3               | 3 | 7 | 63         |            | 2         |

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

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

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

|           |  |   |  |   |   |   |     |  |   |
|-----------|--|---|--|---|---|---|-----|--|---|
|           | trees to damp site   | and lack of planning<br>Reckless driving  | Motor Vehicle Accident   |   |   |   |     |  |   |
| <b>10</b> | <b>Compaction</b>  |   |  |   |   |   |     |  |   |
|           | Operating a bomag roller, wacker etc.                          | Incompetent operator,<br>Noise,<br>Vibration  | Personal injuries and damage to property<br>Noise Induce Hearing loss<br>Kidney problem<br>Body pain | 6 | 6 | 3 | 108 |  | 3 |
| <b>11</b> | <b>Density Testing</b>   |   |  |   |   |   |     |  |   |
|           | Density Testing  | Exposure to radiation   | Health problems  | 3 | 3 | 3 | 27  |  | 2 |
| <b>12</b> | <b>Land Scaping &amp; Grassing</b>                             |   |  |   |   |   |     |  |   |
|           | Land scaping & grassing  | Exposure to fertilizers<br>Over bedding   | Health problem<br>Back Injuries  | 3 | 3 | 3 | 27  |  | 2 |
| <b>13</b> | <b>Construction Mobile Plant and Equipment</b>                 |   |  |   |   |   |     |  |   |
|           | Use of Plant & Equipment on site                               | Incompetent operator<br>Unsafe Plant & Equipment<br>Collusion with other vehicles<br>Petrol and oil spillages | Personal injuries<br>Motor vehicle accident<br>Environmental contamination                           | 6 | 6 | 7 | 252 |  | 4 |
| <b>14</b> | <b>Emergency Management</b>                                    |   |  |   |   |   |     |  |   |
|           | 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<br><br>Insufficient or no emergency equipment or personnel | damage to property<br><br>Workers not trained in the Emergency Plan may result in their inability to respond to emergencies<br><br>Insufficient or no emergency equipment or personnel on site may result in emergencies being critical |   |   |   |     |  |   |
| <b>15</b> | <b>Community Risk Management</b> |  |   |   |   |   |     |  |   |
|           |                                  | 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 |
| <b>16</b> | <b>Subcontractor Management</b>  |  |   |   |   |   |     |  |   |

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

# RISK PROFILE

