

TITLE OF THE ACTIVITY:			DEMOLITION AND REMOVAL OF EXISTING ROAD STRUCTURES										
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TASK STEP	HAZARDS	RISKS0	RISK RATING			INITIAL RISK LEVEL	CONTROL MEASURES (EL – Elimination, RE – Reduction, IS – Isolation, EC – Engineering Control, AC – Administration Control, PPE – Personal Protective Equipment)	CONTROLLE R	RISK RATING			FINAL RISK LEVEL	
			S	L	R				S	L	R		
General Preparation (surveying) and Mobilization of personnel.	<ul style="list-style-type: none"> <li>Lack of communication.</li> <li>Inadequate procedure used</li> <li>Incompetent</li> <li>Unskilled personnel</li> <li>Weather condition</li> <li>Personnel with Partial disability, young workers</li> <li>Less experience personnel</li> </ul>	Injury to personnel Minor/Major. Difficult to response in an emergency. Failure to follow workplace safety. Poor execution of structure	3	5	15	H	<ul style="list-style-type: none"> <li>➤ Ensure only person having working visa allowed to enter the working area.</li> <li>➤ Designated access routes to be used and appropriate signages should be display.</li> <li>➤ Site safety induction training should be conducted to all workers.</li> <li>➤ No visitor will be allowed to enter without gate pass.</li> <li>➤ Pre task briefing to all workers before and ensure close supervision must be standby.</li> <li>➤ Approved Permit to work must be available at site before work comes.</li> <li>➤ Ensure site engineers and foremen are aware of weather condition and daily activities.</li> <li>➤ Skill personnel should be employed.</li> <li>➤ The worker should understand the local language.</li> <li>➤ Ensure young workers should be monitor by a competent foreman</li> </ul>	supervisor, Safety officer and PM.	3	1	3	L	
Mobilization of equipment and machinery	<ul style="list-style-type: none"> <li>Wrong equipment and machinery used.</li> <li>Exposure to noise.</li> <li>Harm and fingers cut injury.</li> <li>Falling object</li> </ul>	Injury to personnel Hearing loss, abrasion, head injury, overturning of vehicles Hydraulic oil leaks	4	4	16	H	<ul style="list-style-type: none"> <li>➤ Ensure all equipment and machinery selected should be in standard of construction.</li> <li>➤ Materials should storage in a designated area and fully barricaded.</li> <li>➤ Ensure unloading of materials should be under supervision of a foreman.</li> <li>➤ Ensure regular maintenance of vehicles.</li> <li>➤ Manal handling training to all personnel to carryout</li> </ul>	Site engineer, supervisor and safety officer.	4	1	4	L	

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	<div>from height.<ul style="list-style-type: none"><li>Speeding of the vehicle at the working area.</li><li>Poor maintenance of vehicle and heavy equipment.</li></ul></div>						<div>loading and unloading activities.<ul style="list-style-type: none"><li>Vehicles should be overloaded.</li><li>Ensure regular maintenance of equipment.</li><li>Speed limit should be strictly monitor at site.</li><li>Certified Banksman/flagman should be deployed during machinery movement.</li></ul></div>									
Demolition/ remover of existing road structure (asphalt pavement layer, kerb stones, interlocking, traffic signs) and Disposal of surplus materials using mobile equipment/six wheel trucks.	<div><ul style="list-style-type: none"><li>Vehicle accident due to uneven surface.</li><li>Materials falls from height.</li><li>Crushing.</li><li>Exposure to the public falling debris.</li><li>Tripping hazard.</li><li>Dust inhalation.</li><li>Collapse of structure.</li></ul></div>	Property damage. Fatality injury workers and road passerby. Death/Facture. Eye injuries.	4	5	20	H	<div><ul style="list-style-type: none"><li>Only QRC, approved vehicle, equipment and machineries shall be used.</li><li>Safety operating speed limit shall be strictly monitor.</li><li>All vehicles should be park in designated area.</li><li>Competent flagman should warn others and guide vehicle during reverse movement</li><li>Ensure tools box talk conducted for safe handling and removal of existing roads structures.</li><li>Keep pedestrians clear away from working area.</li><li>All existing road structures shall be kept in a designated area for proper disposal as DM requirement.</li><li>Operator trained and ensured all machinery/ lifting device are satisfied by third party and certificate available at site.</li></ul></div>	Supervisor, PM, safety officer and workers.	4	1	4	L				

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			S	L	R				S	L	R	
							<ul style="list-style-type: none"> <li>➤ Ensure daily safety check list available for all machinery &amp; equipment.</li> <li>➤ Vehicles should not be overloaded; load should be in a secure position.</li> <li>➤ Reverse beeper and flashlight beacon fitted.</li> <li>➤ Ensure all guard and covers to be fitted.</li> <li>➤ Ensure working area should be completely fence.</li> <li>➤ All required permits shall be obtained from authority.</li> <li>➤ Ensure fire extinguisher available on site and emergency service contact display at site.</li> <li>➤ Ensure all workers on site shall wear full body PPE, (safety helmet, safety shoes, full body coveralls, hand gloves, safety goggles etc.)</li> <li>➤ Conduct pre-task training to all workers involved in demolition activities.</li> </ul>					
Dust generating the workplace	<ul style="list-style-type: none"> <li>• Lung diseases and dermatitis</li> </ul>	Death Respiratory system block	5	4	20	H	<ul style="list-style-type: none"> <li>➤ Ensure full body PPE must be worn at all levels (respiratory mask, hand gloves, goggles, safety shoes, coveralls etc.)</li> <li>➤ Toolbox talk to raise awareness to all workers.</li> <li>➤ Continuous supervision is required to ensure workers are following safe system of work.</li> <li>➤ Eye wash station to be provided and first aid kit with first aider.</li> <li>➤ Ensure housekeeping toolbox talk conducted to all</li> </ul>	Engineer, supervisor, PM AND HSE Officer.	5	1	5	L

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							worker, extreme care to be taken while working on dusty area. ➤ Appropriate safety personal protective equipment must always be worn. ➤ Spray water to reduced dust generating during demolition activities. ➤ Warning signs must be displayed at site. ➤ Barricade the area with safety mesh					
Access/Egress	<ul style="list-style-type: none"> <li>Unauthorized entry to site.</li> <li>Vehicle collision</li> <li>Poor access/egress.</li> </ul>	Injury to public. Major injury to workers.	3	4	12	M	➤ Ensure access to the site must be controlled to ensure the safety of all workers and visitor. ➤ Banksman in place to ensure any awkward reversing. ➤ Conduct tools box talk on safe operating system/speed limits. ➤ Ensure access and egress routes free from materials and equipment. ➤ Ensure mandatory personal protective equipment (PPE) must always be worn (safety helmet, coveralls, safety shoes, Hi-visibility vest etc.) ➤ Barriers should be erected around unattended excavations, secured with sandbags where necessary and warning signage in place such as deep excavation, men at work, reduce speed, warning flashlight etc.	Flagman/site supervisor	3	1	3	L
Manual handling	<ul style="list-style-type: none"> <li>Fatigue.</li> </ul>	Death, injuries					➤ Ensure manual handling training and instruction	Workmen				

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	<ul style="list-style-type: none"><li>Ligament strains, muscle strains.</li><li>Abdominal hernias.</li><li>Hand injury.</li></ul>		3	5	15	M	<ul style="list-style-type: none"><li>provided to all workers.</li><li>➤ Eliminate the need of manual handling by using mechanical aids wherever possible.</li><li>➤ Assess the load and weights marked on all loads.</li><li>➤ Personal protective equipment must be worn (hand gloves)</li></ul>	and supervisor	3	1	3	L			
Using of hand power tools (Hilti, breaker, saw cutter, asphalt cutter)	<ul style="list-style-type: none"><li>Use of defective power tools.</li><li>Poor maintenance of hand power tools</li></ul>	Burn injury. Cut injury. Electric shock.	3	5	15	M	<ul style="list-style-type: none"><li>➤ Power should be inspected by a competent electrician with colour coded on regular basis.</li><li>➤ Tools above 110 volts must have approved from DMC prior to use at site.</li><li>➤ Trained the worker on safe use of power tools.</li><li>➤ Ensure that ON/OFF switch is in safe working condition.</li><li>➤ Industrials socket shall be fitted in all power tools.</li></ul>	Site supervisor, electrician and safety officer	3	1	3	L			
Environmental conditions	<ul style="list-style-type: none"><li>Adverse weather conditions,</li><li>Heat exhaustion</li><li>Heat stroke</li><li>Dehydration</li><li>High body temperature.</li><li>Sunstroke and tiredness</li><li>Muscle cramps.</li><li>Vomiting.</li><li>Headache</li></ul>	Fatality injury to workers Sunburn. Dehydration.	4	3	12	H	<ul style="list-style-type: none"><li>➤ Provision of welfare facility on site with good drinking water, air conditional system, first aid room etc.</li><li>➤ Closed supervision on site and provide the workers rehydration salts and regular break to the workers.</li><li>➤ Shift rotation system shall be implemented.</li><li>➤ Drinking plenty of water with electrolyte (ORS).</li><li>➤ Do not allowed lonely work.</li><li>➤ Ensure DM guideline for midday break shall be follow.</li><li>➤ Provide heat stress training to all workers.</li><li>➤ Conduct toolbox talk to workers</li></ul>	Flagman/site supervisor, PM and HSE	4	1	4	L			

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Use of Crane mounted truck for removal and Loading of existing roads structures.	<ul style="list-style-type: none"><li>confusion</li><li>Loading and Offloading area not secured by warning tape.</li><li>Warning devices not working, insufficient knowledge to operator / rigger and poor maintenance of the equipment.</li><li>Having no control of Precast during lifting.</li><li>Weight not distributed evenly</li><li>makes it</li></ul>	Major injury to workers and passing by motorist/ visitors/ staff or nearby workers. Fatalities, Damage of property and legal prosecution	4	5	20	H	<ul style="list-style-type: none"><li>➤ Before lifting of the load surrounded area of trailer and mobile crane should be barricaded by warning tape/rope with wound warning tape at least 1.5 meters wide access.</li><li>➤ Make sure that sign board clearly visible along the area to aware the motorist/visitors/staff and nearby workers regarding the hazards.</li><li>➤ Assign banks man to control road traffic.</li><li>➤ Supervisor/Foreman shall plan properly the positioning of crane and trailer.</li><li>➤ Crane operator is responsible for ensuring the operation of his unit such out rigger must be fully extended, out rigger lock to be secured.</li><li>➤ Ensure that all warning devices are functioning properly, manual of crane is available, and maintenance record of the crane including valid 3<sup>rd</sup> party certificate prior to commence demolition operation.</li><li>➤ Crane mounted truck operator shall mandatory performed check list every shifting of his unit after setting to ensure the safe system of work.</li><li>➤ Demolition Supervisor to ensured safe procedure shall be followed and instruct the employee/workers accordingly.</li><li>➤ Tag line must be attached always during removal of</li></ul>	Lifting supervisor, site engineer, foreman & HSE Officer.	4	1	4	L					



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	difficult control. <ul style="list-style-type: none"><li>Over loaded Vehicle,</li></ul>						existing road signs to avoid unnecessary movement of load. <ul style="list-style-type: none"><li>➤ His knowledge and advice should be adhered.</li><li>➤ Employee to be made aware of these hazards.</li><li>➤ Only communication between the rigger &amp; operator can avoid an injury from occurring.</li><li>➤ Driver to be inducted in safe loading operation.</li><li>➤ Driver to ensure that the capacity chart is available and clearly readable out of door cab.</li><li>➤ Driver should be monitored the loading sequence.</li></ul>									
Waste Materials/Hazardous Wastes	<ul style="list-style-type: none"><li>environment impact</li></ul>	Contamination of environment/ damage to natural flora.	4	3	12	M	<ul style="list-style-type: none"><li>➤ Hazardous wastes should be stored in designated areas and label with signage.</li><li>➤ Conduct training on safe handling of hazardous materials and the important of PPEs (safety hand gloves, dust mask, full body coveralls, safety helmet, goggles etc.)</li><li>➤ Safety signages should be at place, segregated and disposed as per DM guidelines.</li><li>➤ Ensure housekeeping should be maintained at all level and proper materials storage at site.</li></ul>	HSE / PM Engineers and workmen	4	1	4	L				
Precautionary measures for the COVID - 19 .	<ul style="list-style-type: none"><li>Get positive in COVID 19 or any other diseases.</li><li>Personnel can be infected to virus</li></ul>	Hight fever. Serious cases/Death Caught	5	4	20	H	<ul style="list-style-type: none"><li>➤ Ensure toolbox talks conducted to all workers at site on coronavirus (COVID-19) safety precaution must be followed,</li><li>➤ Ensure DHA safety guiding implemented at site (surgical mask, hand gloves and social distances of 1.5 meter must be maintained at all time.</li></ul>	Workmen, HSE, PM, Engineer and pedestrians or pass by.	5	1	5	L				

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Emergency situation	Fire and Explosion.  Fumes/smoke, Earthquake/nearby building collapse, riots/accident etc.	Bodily injuries/Fatality/Severe burns, property damage	3	5	15	H	<div>➤ Conduct toolbox talks on good housekeeping and personal hygiene.</div> <div>➤ Provide hand sanitizer for disinfectant, first aid kit and ensure a competent first aider standby at site</div> <div>➤ Ensure daily temperature scanning before work comes.</div> <div>➤ Emergency contacts should be display at site and all incident/accident and near miss must be reported immediately.</div> <div>➤ Emergency access route shall be kept always free from obstruction.</div> <div>➤ Emergency contact numbers to be affixed at prominent locations.</div> <div>➤ HSE Training on emergency situation.</div> <div>➤ Emergency Cluster point shall be identified and signposted accordingly.</div> <div>➤ Emergency procedure must be shared on Toolbox Talk Scenario based drill.</div>	Workmen, HSE, PM, Engineer and pedestrians or pass by.	3	1	3	L					




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Likelihood (L) (% of Compliance)		Severity (S)		RR: Risk Rating (LxS) RISK LEVEL = Resultant Risk Level being either High, Medium or Low.		Likelihood						
							0	1	2	3	4	5
1	91 to 100	1	First-aid case	1 – 4	Low	Severity	1	1	2	3	4	5
2	81 to 90	2	Minor (Hospital referred)	5 – 10	Medium		2	2	4	6	8	10
3	71 to 80	3	Reportable (3 - 21 days medical rest)	12 - 25	High		3	3	6	9	12	15
4	25 to 70	4	Major (Hospital admission/≥21 days medical rest)				4	4	8	12	16	20
5	0 to 24	5	Fatality				5	5	10	15	20	25

**Legal Reference:** Chapter 5, Federal Labour Law (8), UAE 1980/ Ministerial Order No. 32, UAE 1982/ Code of Construction Safety Practice, Dubai 2008

Prepared by Risk Assessment Committee/ HSEO		Workmen Representative		Approved by Management Representative/ Project Manager	
Name & Designation	Betta Melvis	Name & Designation		Name & Designation	

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Signature				Signature				Signature									