

# MAHALAKSHMI ENGINEERING & CONSTRUCTION PVT.LTD.

## Hazard Identification & Risk Assessment

**Project:-** MAHARASHRTA HOUSING DEVELOPMENT CORPORATION LIMITED,MUMBAI

**Location:-** SOLAPUR

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								Severity S	Probability P	Risk score (AXBXSXP)	Risk level	
1	Survey of site	1.Animal & insect bite	Body injury	Y	Use of PPEs like helmet, safety shoes	2	2	5	5	100	moderate	1.Use of stick & whistle. 2.Smoking restricted near survey area.3.Proper concentration. 4.Proper communication. 5.Proper supervision. 6.Training conducted to all engaged workers. 7.Displayed instruction board. 8.Use of PPEs
		2.Facing climate	ill Health	N		1	2	3	2	12	Tolerable	
		3.Fall of person on same	Body injury	Y		2	2	3	3	36	moderate	
		fire	Burn injury	Y		2	2	4	3	48	moderate	
		Sprain back pain	Body injury	N		1	1	2	1	2	Trival	
2	Security	Facing climate	ill Health	N		1	1	3	2	6	Trival	1)Provision of security check post/Shelter. 2)Provision of communication system. 3)Use of stick & Whistle. 4)Provision of torch. 5)Trained person to do the work. 6)Displayed instruction, rule & regulaton, Emergency contact numbers & first aider numbers in security cabin. 7) Proper supervision provided to control security or gate. 8) Various register maintained at security cabin. 9) Use of PPEs
		Mob attack	Ear injury	N		1	1	2	1	2	Trival	
		Animal Bite	Body injury	N		2	1	3	2	12	Tolerable	
3	Excavation	Collapse of structure	injury, casualty	y	Mandatory ppesprovided,hard barricading, indication provided	2	2	5	3	60	moderate	1) Hard barrication provided 1 meter away from excavation.2) Loose mateial not stacked with in 1.5 m. 3)Proper excavation slope maintained. 4) Emergency access provided. 5) All entry/ exit maintain clear. 6) permission taken to local authority regrding underground utility. 7) Regular maintainance all vehicles & equipment. 8) Health check up done involve workers. 9)Follow excavation work permit system. 10) Excavation instruction dispalyed in local language. 11) Proper supervision. 12) Trained person to do the work. 13) Use of PPEs
		Fall of person	Injury ,Major cuts, casualty	y		2	2	5	2	40	moderate	
		Fall of vehicles	Injury ,Major cuts, casualty	Y		2	2	5	3	60	moderate	
		Failure of excavator	injury	N		1	1	2	2	4	Trival	
		Electrocution	electric shok , ill health	Y		2	2	5	5	100	moderate	
		struck into	injury, casualty	N		2	2	5	3	60	moderate	
4	Loading of excavated material in dumper by excavator	Flying of dust	eye injury	N	Instruction given to all driver	1	1	2	5	10	Tolerable	1.Walkway should be clear. 2.Proper housekeeping. 3.Valid driver licence. 4.Medical check to all drivers. 5.Follow of work permit system. 6.Use of head light, tail light, backward & forward, reverse horn. 7.Before starting of activity check all devices of vehicles. 8.Follow up hand out instruction issued by safety team. 9.Proper ramp provided. 10. Hard barrication provided. 11. Proper communication between both drivers. 12.Follow up speed limit. 13.Proper supervision. 14.Training conducted to all drivers. 15.Use of PPEs.
		Fall of Vehicle	major injury cause fatal	Y		2	2	5	2	40	moderate	
		Hitting by dumper/excava	body injury	N		1	1	3	2	6	Trival	
		Noise	Ear injury	N		1	1	2	2	4	Trival	
5	Vehicular movement at site	Hit to person	Body injury	Y	Instruction displayed to gate	2	2	5	5	100	moderate	1.Vaild driver licence. 2.Medical check up done. 3.PUC & Insurance copy check. 4.Instruction hand out provided to all vehicles. 5.Provision of reverse horn, head light & tail light of vehicles.6.Always use wheel chock for standing vehicles. 7.Always follow rules & regulation dispalyed at site. 8.Follow speed limit displayed at site. 9.Always check all switch, gear, brake, horn & required switch before starting of work. 10.Proper supervision. 11.Training to all drivers. 12.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Break failure	Caught in between	N		1	1	2	5	10	Tolerable	
		Fall of vehicle	Fatalality	Y		2	2	5	2	40	moderate	
6	Driving	Fall of material	Body injury	N	Use of helmet	1	1	2	2	4	Trival	1.Driver having valid licence. 2.Periodical medical checking. 3.Periodically maintannce. 4.Provision of reverse horn, head light, tail light.5.Do not use nail for the purpose of key. 6.Always follow up safety hand out issue by safety team.7.Proper supervision. 8.Training conducted to all drivers. 9.Use of PPEs
		Hitting person	Body injury, Fracture	N		1	1	2	2	4	Trival	
		Dashing to material	minor injury	N		1	1	2	2	4	Trival	
		Collapse of structre	major injury	N		1	1	2	2	4	Trival	
7	Shifting of material manually (Cement & other construction material handling )	Fall of person	Major injury	Y	Use of hand gloves	1	1	3	2	6	Trival	1.Walkway should be clear. 2.disrtibution of same load.3.Proper supervision .4.Training conducted to all engaged workers. 5.Use of PPEs
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Caught in between	hand injury	N		1	1	1	5	5	Trival	
		Back pain, sprain	shoulder injury	N		1	1	1	5	5	Trival	
8	Unloading of steel bar from truck (Other construction material)	Caught in between	Hand injury	N	Use of hand gloves	1	1	2	5	10	Tolerable	1)Proper housekeeping. 2)Proper communication. 3) Training provided before starting of activity. 4) Proper supervision provided. 5) Instruction dispalyed on local languages. 6) Use of required PPEs
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Fall of person	Body injury	N		1	2	3	2	12	Tolerable	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E		Risk rating			Control measure (tobe taken)		
						A	B	Severity	Probability	Risk score		Risk level	
								S	P	(AXBXSXP)			
9	Bar cutting operation by use of cutting machine	Contact with cutting part of the machine	Hand injury	N	Use of handgloves	1	1	2	2	4	Trival	1.Regular maintaince of machine. 2) Use of ELCB to bar cutting machine. 3)Proper Housekeeping. 4)ELCB/RCCB checking on regular basis. 5)Guard should be provided for bar cutting area. 6)Proper supervision. 7) Trained person to do the work. 8)Display instruction board. 9.Use of PPEs	
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate		
10	Bar bending operation by use of bending machine	Contact with cutting part of the machine	Hand injury	N	Use of handgloves	1	1	2	2	4	Trival	1.Regular maintaince of machine. 2) Use of ELCB to bar cutting machine. 3)Proper Housekeeping. 4)ELCB/RCCB checking on regular basis. 5)Guard should be provided for bar cutting area. 6)Proper supervision. 7) Trained person to do the work. 8)Display instruction board. 9.Use of PPEs	
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate		
		Sprain pain	Body injury	N		1	1	2	2	4	Trival		
11	Scaffolding erection	Fall of material	Body injury	N	Use of safety harness	1	1	1	5	5	Trival	1.Good quality of material to be used for scaffold erection. 2.)select proper base for scaffold. 3.provide cross bracing ,side support & mid rail top rail. 4.Using nylon rope for material handling . 5.Use of plank for erection time. 6.Proper communication. 7.scaffolding erect in presence of competent person. 8.Follow up tag system. 9.Regular inspection of scaffodding. 10.Height test to be checked for engaged workers. 11.Follow instruction displayed. 12.Training to be conducted before starting of activity. 13.Proper supervision. 14.Use of required PPEs.	
		Fall of person	Major injury, casualty	Y		2	2	5	5	100	moderate		
		collapse of structure	major injury	Y		1	2	5	2	20	Tolerable		
		Caught in between	Hand injury	N		1	1	2	2	4	Trival		
12	Scaffolding dismantling	Fall of material	Body injury	N	Use of safety harness, TBT training to be conducted before starting of activity	1	1	1	5	5	Trival	1.Remove of loose material, electrical cable before starting of dismantling. 2.Using nylon rope for material handling. 3.Use of Plank for platform. 4.Dismantling inspection to be done before starting of activity. 5.Area barricaded. 6.Tag & instruction board displayed. 7.Height test to be checked for engaged workers. 8.Proper communication. 9.Proper housekeeping.10 proper supervision . 11.Training to be conducted before starting of activity.12.Support to be removed step by step 13.Use of required PPEs	
		Fall of person	Major injury, casualty	Y		2	2	5	5	100	moderate		
		Collapse of structure	major injury	N		1	2	5	2	20	Tolerable		
		Caught in between	Hand injury	N		1	1	2	2	4	Trival		
		Electricusion	Electric shock, ill health	Y		2	2	5	5	100	moderate		
13	Shuttering	Fall of person	Injury ,Major cuts, casualty	Y	1.Use of safety harness	2	2	5	5	100	moderate	1)Use Safe working paltform .	
		Fall of material	Injury ,Major cuts.	N	2.Proper supervision provided	1	1	1	2	2	Trival	2) Provided safety net 3.provided of shuttering support	
		Collapse of structure	Injury ,Major cuts, casualty	Y		2	2	5	5	100	moderate	4) Provided life line & Use of proper access	
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate	5)ELCB/RCCB provided to electrical panel board 5.Avoid to electrical cable passing through the MS material	
		Caught in between	Injury ,Major cuts,	N		1	1	2	2	4	Trival	6)walkways obstruction free 7) Medical check up done or height pass test done	
													8)Proper supervision provided
													9)Trained people to do the work 10) Follow work permit system 11) Display of Instruction board in local language 12)Use of PPE like Safety harness, Helmet & shoes
14	Deshuttering	Fall of person	Injury ,Major cuts, casualty	Y	Use of safety harness, supervision provided, platform provided	2	2	5	5	100	moderate	1.Use of proper working platform. 2.Provided safety net. 3.Use of rope for material support. 4.Provided anchorage for fixing of safety harness. 5.All emergency entry/ exist should be clear. 6.Proper housekeepiong done. 7.ELCB/RCCB provided to all electrical panel board. 8.Barrication provided to deshuttering area. 9.Medical check up done. 10.Supervision provided . 11.Train person to do the work. 12.Height work system follow. 13.Display of instruction board in local language. 14.Use of PPEs	
		Fall of material	Injury ,Major cuts.	N		1	1	1	2	2	Trival		
		Collapse of structure	Injury ,Major cuts, casualty	Y		2	2	5	5	100	moderate		
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate		
		Caught in between	Injury ,Major cuts,	N		1	1	2	2	4	Trival		

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)	
								A	B	Severity S	Probability P		Risk score (AXBXSXP)
15	Reinforcement	Fall of person	Injury ,Major cuts, casualty	Y	Use of safety harness, supervision provided, platform provided	2	2	5	5	100	moderate	1) Provided of lifeline as per IS 1926.104. 2)Use of proper working platform. 3) Provided safety net at periphery of building. 4)Proper access . 5) Proper housekeeping. 6) All entry & exist route clear. 7) ELCB/RCCB provided to all electrical panel board. 8) Electrical cable passing through heighted. 9.Barrication done on work place area. 10.Medical check up done. 11.Stagging support properly. 12)Proper supervision provided. 13) Train person to do the work. 14) Use of required PPEs	
		Fall of material	Injury ,Major cuts.	N		1	1	1	2	2	2		Trival
		Collapse of structure	Injury ,Major cuts, casualty	Y		2	2	5	5	100	moderate		
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate		
		Caught in between	Injury ,Major cuts,	N		1	1	2	2	4	4		Trival
16	Coloumn shuttering	Fall of person	Major injury	Y	TBT Training provided to all Workers	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Proper stagging should be provided with proper working platform. 3.Anchorage provided for fixing of safety harness. 4.All duct should be closed. 5.All edges barrication properly closed. 6.Provision of safety net for outside coloumn. 7.Proper supervision. 8.Trained person to do the work.9.Use of PPEs	
		Fall of material	Fracture	N		1	1	2	2	4	4		Trival
		Caught in between	Hand injury	N		1	1	2	2	4	4		Trival
17	Coloumn Reinforcement	Fall of person	Major injury	Y	TBT Training provided to all Workers	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Proper stagging should be provided with proper working platform. 3.Anchorage provided for fixing of safety harness. 4.All duct should be closed. 5.All edges barrication provided. 6.Provision of safety net for outside coloumn. 7.Proper supervision. 8.Trained person to do the work.9.Use of PPEs	
		Fall of Material	Fracture	N		1	1	2	2	4	4		Trival
		Caught in between	Hand injury	N		1	1	2	2	4	4		Trival
18	Fixing of concrete pump	Fall of person from heigh	Major injury, casualty	Y	Use of PPEs like safety harness	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Use of nylon rope for matrrail handling. 3.use of scaffold for guiding the pipeline. 4.Proper joints of pump (using clamp for using safety pins). 5.Proper communication. 6.Proper supervision. 7.Instruction should be followed. 8.Area barricaded.9.Training should be conducted to all engaged workers. 10.Use of PPEs	
		fall of material	Body injury	N		1	1	1	5	5	5		Trival
		failure of pipe joint	Body injury	N		1	1	2	2	4	4		Trival
		Caught in between	Hand injury	N		1	1	2	5	10	10		Tolerable
19	Coloumn Deshuttering	Fall of material	Fracture	N	Harness provided, training conducted to all workers	1	1	2	5	10	Tolerable	1.Walkway should be clear. 2.Proper stagging should be provided with proper working platform. 3.Anchorage provided for fixing of safety harness. 4.All duct should be closed. 5.All edges barrication provided. 6.Provision of safety net for outside coloumn.7.Electrical cable not lying on ms material proper insulation provided.8.Proper supervision. 9.Trained person to do the work.10.Use of PPEs. 11.Tools should be proper tied with rope & body.	
		Fall of Person	major injury	Y		2	2	5	5	100	moderate		
		Electrocution	Electric shock, ill health	Y		2	2	5	2	40	40		moderate
		Caught in between	hand injury	N		1	1	2	5	10	10		Tolerable
20	Concreting or Casting OF Coloumn & Slab	Fall of person	Body injury,casualty	Y	Use of Safety harness & walkway clear	2	2	5	5	100	moderate	1.Walkway free from Obstruction. 2.Provide Safe Working Platform & proper shuttering support. 3. Provide Railing & netting. 4.Use of periphery Lifeline. 5.Electrical equipment goes through ELCB/RCCB. 6. Work permit issue.7.Use of good quality material.8.All duct opening, lift pit opening should be closed. 9.Loose material not stacked on periphery of building. 10.Displayed site instruction.11.Proper supervision. 12.Toolbox training. 13.Use of PPEs. 13.Height pass test conducted to all engaged workers.	
		fall of material	Body injury	N		1	1	2	5	10	10		Tolerable
		caught in between	Hand injury	N		1	1	1	2	2	2		Trival
		Noise hazard	Ear injury	N		1	1	1	5	5	5		Trival
		Health hazard	ill heath	N		1	1	1	2	2	2		Trival
		Electrocution	Electric shock, ill health	Y		2	2	4	5	80	80		moderate
21	fixing of concrete pump	Electrical shock	Major injury	Y	Connection through ELCB	2	2	5	5	100	moderate	1. Use of proper cable to connect through ELCB/RCCB.. 2.ELCB cable should be proper placed not on floor. 3.Regular maintaince & inspection done. 4.Proper supervision. 5.Training given to all workers. 6.Use of PPEs.	
		Health hazard due to vibr	Respiratory problem	N		1	1	3	2	6	6		Trival
22	Housekeeping	Fall of person	Body injury	Y	Material stacking propely	2	2	3	2	24	Tolerable	1. Walkway should be cleared 2. stacking the material away from edges. 3.Proper supervision. 4.Proper training to all engaged workers. 5.Instruction displdyed in local language. 6.Use of required PPEs	
		Caught in between	Hand injury	N		1	1	2	5	10	10		Tolerable
		contact with dust	heath injury	N		1	1	2	5	10	10		Tolerable

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
23	Ply wood cutting by use of wood cutting machine	Electrocution	Electric shock, ill health	Y	Use of goggle & ear plug	2	2	4	2	24	Tolerable	1. Use Good quality and standard machine (RPM not less than 5000 & more than 7000 rpm).2.Use IS standard moving wheel Only and ensure not to use after expiry date. 3.guard provided to cutting wheel. 4.Select proper base for plywood. 5.Area barricaded. 6.Proper housekeeping. 7.use ELCB/ RCCB for electrical connection .8.Proper supervision. 9.Trained person to do the work. 10.Use of required PPEs.
		Wheel break	body injury	N		1	1	2	2	4	Trival	
		Fly partical	eye injury	N		1	1	2	5	10	Tolerable	
		Contact with hand	Hand injury	N		1	1	2	2	4	Trival	
24	Erection of winch	Fall of person	Major injury, casualty	Y	Use of Safety harness & required PPEs	2	2	5	5	100	moderate	1.Erect scaffold on firm base and level of ground. 2.Use of good quality & good condition material. 3.Proper bracing . 4.Proper support required to all floor wise. 5.Proper working platform. 6.Proper communication. 7.Use of nylon rope for handling of material. 8.Proper supervision. 9.Trained person to do the work. 10 Use of required PPEs.
		fall of material	Body injury	N		1	1	2	5	10	Tolerable	
		caught in between	Hand injury	N		1	1	2	5	10	Tolerable	
25	Winch operation	Fall of person	Major injury, casualty	Y	Trained operator provided	2	2	5	5	100	moderate	1. Use proper platform for material unloading. 2.Machine connect to ELCB/RCCB. 3.Area barricaded. 4.Regular inspection done. 5.Third party inspection to be done. 6.SWL & equipment numbers displyed in local languge near winch machine. 7.Shed provided for resting the workers. 8.Medical check up to be done. 9.Proper supervision. 10.Training to be conducted for all workers engaged in activity. 11.Use of required PPEs
		fall of material	fracture	N		1	1	2	2	4	Trival	
		Caught in between	Hand injury	N		1	1	2	2	4	Trival	
		Electricusion	Electric shock, ill health	Y		2	2	5	2	40	moderate	
26	Dismentling of winch machine	Fall of Person	Major injury	Y	Training provided to all workers	2	2	5	5	100	moderate	1. Work permit must be issued before starting of work, with proper information.2.Tool Box talk to be given to the persons before starting of the work.3. Trained persons must be on the job.4.First Aid material should be available at the work place.5.Strict Supervision required during the work.6.Proper Communication system provided.7.Spray Oil or Diesel on all Joints, Nut & Bolts, Pins & mast etc. 8.Remove of all Electrical wire going to winch machine.9 Area barricaded.10.Use of Nylon rope for shifting of mast.10.Use of appropriate PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Caught in between	hand injury	N		1	1	2	2	4	Trival	
		Sprain, pain or hiiting to	Body injury	N		1	1	2	2	4	Trival	
27	Electrical panel board	Fire	loss of property, burn injury	Y	Competent electrician provided at site	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Removing flammable & non flammable material from panel side. 3.Provided earth pit. 4.Regular checking for earth pit resistance.5.Provision of fire extinguisher. 6.Proper shed provided. 6.All panel board connect with ELCB/RCCB. 7.Provided industrial socket & rubber mats as per IS. 8.Dont use electrical wire without pin plug.9.Do not overloaded electrical cable in panel board & Proper insulation should be provided to all electrical cable & always cable pass through heighted. 10.Display 440 volt signages & instruction board in local languages & shock treatment chart in local languages. 11.Training conducted to all electrician.12.Proper supervision with regular inspection done & displayed at panel board. 13.Name, mobile numbers of electrician displayed at panel board. 14.Implement of LOTO system 15.Use of PPEs.
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
28	Working at height	Fall of person	Major injury, causulity	Y	Harness provided, training conducted to all workers	2	2	5	5	100	moderate	1.Walkway clear. 2.Proper housekeeping. 3.Provide safety net. 4.All duct should be closed. 5.All edges protection should be provided. 6. All lift shaft should be fixed with GI sheet for protection of falling object. 7.Staircase railing provided. 8.Loose material removed from the pheriphery of building & work place. 9.Proper scaffolding or work station provided with proper support. 10.Life line provided & fixed with MS pipe for good strength. 11.Provide proper electical cable layout & remove from steel material. 12.All cable should connect to ELCB/RCCB. 13.Proper supervision. 14.Training to be provided. 15.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Collapse of structure	major injury	Y		2	2	5	5	100	moderate	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)		
								A	B	Severity	Probability		Risk score (AXBXSXP)	Risk level
										S	P			
29	Store (General store)	Fall of person	Body injury	Y	Material issue & receive record maintained & Flammable material store separately	2	2	4	2	32	moderate	1)Use of Firm Stands. 2) Remove flammable material like paint,oil, diesel & chemical & store separate away from 5 meter to general store. 3)Heavy material to stack at lower level. 4)Material not protruding out. 5)Use of ladder. 6)Provision of suitable fire extinguisher. 7)Provision of tag system. 8)Trained person for fire fighting. 9) Proper supervision. 10)Instruction board dispalyed in local language. 11) Use of required PPEs		
		Fall of material	loss of property, body injur	N		1	1	2	5	10	Tolerable			
		Fire	loss of property, body injur	Y		2	2	4	2	32	moderate			
		Collapse of structure	major injury	N		1	1	2	5	10	Tolerable			
		Caught in between	minor cut injury	N		1	1	2	5	10	Tolerable			
30	Flammable storage area	Fire	loss of property, burn injury	Y	Separate store provided	2	2	5	5	100	moderate	1.Walkway should clear. 2.Area should be segregate. 3.Separate store away from 5 meter to general store. 4.separate material should be stacked & tag should be displayed.5.MSDS displayed. 6.Proper slope maintain for collection of spillage oil. 7.Fire extinguisher provided. 8.Proper ramp provided.9.List of quantity displayed. 10.Identification & instruction displayed. 11.Training conducted to engaged workers. 12.Proper supervision. 13.Provision of flame proof light. 14.Provision of fire blanket. 15. Emergency contact numbers dispalyed.16. Use of required PPEs.		
		Contact with diesal	eye injury	N		1	1	2	1	2	Trival			
		Electricusion	Electric shock, ill health	Y		2	2	4	2	32	moderate			
31	Canteen	Fire	loss of property, body injur	Y	Only canteen identification board diplayed	2	2	4	5	80	moderate	1)Separate flammable material in canteen,2)Use of proper system to carry,hold hot objects, 3)Proper illumination, 4) Proper Ventillation, 5)Use of Industrial LPG, 6)Provision of suitable fire extinguisher. 7)Proper housekeeping. 8) Provided train person for fire fighting. 9)Proper supervision. 10)Regular cleaning of collection water tank. 11)Train person to dothe work. 12) Instruction displayed in local language 13)Use of required PPEs. 14)Medical check up done to cooker. 15) Use of industrial LPG cylinder		
		contact with hot object	Bun injury	N		1	1	3	5	15	Tolerable			
		contact with sharp object	minor cut injury	N		1	1	2	2	4	Trival			
		Dust & fumes	Health injury	N		1	1	2	5	10	Tolerable			
32	Welding	UV /IR radiation	eye injury	N	Use of face sheild	1	1	3	5	15	Tolerable	1.All Flammable & inflammable material from the area should be removed.2. Sufficient number of water / sand buckets/ portable fire extinguishers etc should be kept in the area of welding. 3. Welder should watch the fire after 30 minutes of completion of job. 4. Special care should be taken if any welding required to be carrying out on diesel /chemical paint tanks or pipe lines. 5.welding slag should be shielded from falling down in case Overhead welding and should be sealed with non-Combustible material. 6. Job should be constantly supervised and all precautions should be followed strictly.7. If possible screen shall be used to avoid health hazard of the persons who are working in that area.8. Use ELCB for Ele.connection. 9.Proper lug used. 10.Provided Earthling. 11.Trained person to do the work. 12.Medical should be check. 13.Proper supervision. Use of PPEs.		
		Contact with hot object	hand, arm injury	N		1	1	3	5	15	Tolerable			
		Electrocution	Electric shock, ill health	Y		2	2	4	5	80	moderate			
		Fire	Burn injury	Y		2	2	4	2	32	moderate			
33	Gas cutting	UV /IR radiation	eye injury	N	Training conducted to engaged workers	1	1	3	5	15	Tolerable	1.All Flammable & inflammable material from the area should be removed.2. Sufficient number of water / sand buckets/ portable fire extinguishers etc should be kept in the area of welding. 3. Welder should watch the fire after 30 minutes of completion of job. 4. Special care should be taken if any gas cutting required to be carrying out on diesel /chemical paint tanks or pipe lines. 5. Job should be constantly supervised and all precautions should be followed strictly.6. If possible screen shall be used to avoid health hazard of the persons who are working in that area.7. Use trolley, flash back arrestor, NRV to gas cutting set. 8.Do not play the cylinder. 9.Trained person to do the work. 10.Medical should be check. 11.Proper supervision. Use of PPEs.		
		Contact with hot object	Burn injury	N		1	1	3	5	15	Tolerable			
		Explosion	Health injury	Y		2	2	5	2	40	moderate			
		Fire	Burn injury	Y		2	2	5	2	40	moderate			
34	Storage & handling of gas cylinder	Fire/Explosion	Burn injury may be fatal	Y	Separate yard provided	2	2	5	5	100	moderate	1.Separate yard provided. 2.Proper housekeeping. 3.Adequate ventillation in storage area. 4.Gas cylinder kept vertically tied with chain & provided cap . 5.Provision of Fire Extinguisher. 6.Gas cylinder trolley provided for handling & transferring cylinder.7.Storage area away from hot work (min 6 meter). 8.Do not stack empty & full cylinder, always stacked separate 3 meter distance. 9.Do not stacked mixed cylinder. 10.Always stack 3 meter distance both. 11.Use flash back arrestor, NRV. 12.Proper supervision. 13.Regular monitoring. 14.Trained person to do the work. 15.Displayed identification & instruction board in local language. 16.Use of PPEs		
		Falling of material	fracture	N		1	1	3	2	6	Trival			
		Caught in between	hand injury	N		1	1	2	2	4	Trival			

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
35	Masonry or Block work	Fall of person	major injury	Y	Safety harness provided to all workers	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Area cordon off. 3.Use of Proper safe scaffold inspected by competent person. 4.Use of fully planked. 5.Do not stacked brick or other material to platform. 6.Use of safety net. 7.Provision of safety belt anchorage. 8.Do not store loose material in periphery of building. 9. Remove of all electrical cable passing to scaffolding.10.Proper supervision. 11.Displayed of instruction board in local languages. 12.Training to be conducted to all engaged workers. 13.Use of PPEs
		Fall of Material	fracture	N		1	1	3	5	15	Tolerable	
		Electrocution	Electric shock, ill health	Y		2	2	5	2	40	moderate	
		caught in between	Hand injury	N		1	1	2	5	10	Tolerable	
36	Internal & External Plaster	Fall of person	Major injury	Y	Use of safety harness	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Area cordon off. 3.Use of Proper safe scaffold inspected by competent person. 4.Use of fully planked. 5.Do not stacked heavy & loose material at platform. 6.Use of safety net (vertical as well as horizontal inside of staggig). 7.Provision of safety belt anchorage. 8.Do not store loose material in periphery of building. 9. Remove of all electrical cable passing to scaffolding.10.Proper supervision. 11.Displayed of work instruction & MSDS with COSHH in local languages. 12.Training to be conducted to all engaged workers. 13.Use of PPEs
		Fall of material	Fracture	N		1	1	3	5	15	Tolerable	
		Contact with chemical, ce	Hand injury	N		1	1	2	2	4	Trival	
		Electrocution	Electric shock, ill health	Y		2	2	5	2	40	moderate	
		Caught in between	Hand injury	N		1	1	2	5	10	Tolerable	
37	Dewatering (in excavation & required area)	Fall of Pump	major injury	N	TBT Training provided to all Workers	1	1	2	5	10	Tolerable	1.Walkway should be clear. 2.All pump should be connect to ELCB/RCCB. 3.Use of Nylon Rope for Pump Handling.4.Area should be barricate. 5.Proper supervision. 6.Danger board displayed. 7.Training conducted to all workers. 8.Use of PPEs.
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pipe Jonits Open	Respiratory problem	N		1	1	2	2	4	Trival	
		Fall of Person	major injury	Y		2	2	4	2	32	moderate	
38	Loading of excavated material in dumper by excavator	Flying of dust	eye injury	N	Instruction given to all driver	1	1	2	5	10	Tolerable	1.Walkway should be clear. 2.Proper housekeeping. 3.Valid driver licence. 4.Medical check to all drivers. 5.Follow of work permit system. 6.Use of head light, tail light, backward & forward, reverse horn. 7.Before starting of activity check all devices of vehicles. 8.Follow up hand out instruction issued by safety team. 9.Proper ramp provided. 10. Hard barrication provided. 11. Proper communication between both drivers. 12.Follow up speed limit. 13.Proper supervision. 14.Training conducted to all drivers. 15.Use of PPEs.
		Fall of Vehicle	major injury cause fatal	Y		2	2	5	2	40	moderate	
		Hitting by dumper/excava	body injury	N		1	1	3	2	6	Trival	
		Noise	Ear injury	N		1	1	2	2	4	Trival	
39	Painting (External & Internal)	Inhalation of paint fumes	Health injury	N	TBT Training provided to all Workers	1	1	2	2	4	Trival	1.Away from hot flames. 2.Walkway clear. 3.Barrication done. 4.Paint tin tied to body. 5.Use of safe scaffold with fully platform inspected by competent person. 6.Provided safety net. 7.Follow work permit system.8.Height test to be checked. 9.Trained person to do the work. 10.Proper supervision. 11.Use of required PPEs.
		Flying of paint	Eye Injury	N		1	1	2	5	10	Tolerable	
		Contact with thiner	Hand Injury	N		1	1	2	2	4	Trival	
		Fall of person	major injury	Y		2	2	5	5	100	moderate	
		Fall of material	Any part of body injury	N		1	1	2	2	4	Trival	
		Fire	Burn injury	Y		2	2	5	3	60	moderate	
40	Drilling	Contact with drill nip	Hand injury	N	TBT Training provided to all Workers	1	1	3	2	6	Trival	1. Wear tight clothes .2. Use good quality tools .3. Use ELCB . 4.Use water cooling tool & hot surface. 5.Always wear Safety harness for working at height. 6.Provision of supervision. 7.Trained person to do the work. 8.Use of PPEs.
		Electrical Shock	Body injury may be fatal	Y		2	2	5	5	100	moderate	
		Trapping of finger in between plate & base of	Finger injury	N		1	1	2	2	4	Trival	
		Contact with hot surface	Burn injury	N		1	1	3	2	6	Trival	
		Flying of particules	eye injury	N		1	1	2	2	4	Trival	
41	Grinding	Contact with moving part	Hand injury	N	TBT Training provided to all Workers	1	1	3	2	6	Trival	1. Use IS standard moving wheel Only and ensure not to use after expiry date. 2.guard provided to grinding wheel. 3. Use ELCB for ele.connection. 4.Do not use joint cable. 5.Proper supervision. 6.Regular inspection done. 7.Trained person to do the work. 8.Use of PPEs.9.Cracks should be checked before installation by ring test.
		Flying of particules	eye injury	N		1	1	2	2	4	Trival	
		Electrical Shock	body injury may be fatal	Y		2	2	5	5	100	moderate	
		Wheel break	Body injury	N		1	1	3	2	6	Trival	
		Noise	Hearing loss	N		1	1	2	5	10	Tolerable	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)		
								A	B	Severity	Probability		Risk score (AXBXSXP)	Risk level
										S	P			
42	Manual backfilling	Fall of person	Major injury	Y	TBT Training provided to all Workers	2	2	5	5	100	moderate	1.Use life line or nylon rope for anchoring of Safety harness. 2.Walkway should clear. 3.Area cordon off. 4.Proper housekeeping. 5.Proper supervision. 6.Training conducted to all engaged workers.7.Use of required PPEs		
		fall of material	fracture	N		1	1	2	2	4	Trival			
		collapse of soil	Body injury	N		1	1	2	2	4	Trival			
		Back Pain ,sprain	shoulder injury	N		1	1	2	2	4	Trival			
43	Fixing of safety net	Fall of person	major injury	Y	Training conducted to engaged workers, Safety harness provided, Anchorage of safety harness provided.	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Area codon off. 3.Remove of all electrical cable. 4.Proper communication. 5.Pheripheral hard barrication required. 6.Duct properly closed. 7.Proper supervision. 8.Use of PPEs		
		Fall of material	fracture	N		1	1	2	5	10	Tolerable			
		Caught in between	hand injury	N		1	1	2	5	10	Tolerable			
		Electrocution	Electric shock, ill health	Y		2	2	4	2	32	moderate			
44	Hard Barrication	Fall of Person	Major injury	Y	Training conducted to all engaged workers.	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Anchorage provided for fixing of safety harness. 3.Remove loose material near pheripheral area. 4.Proper supervision. 5.Training conducted to all workers. 6.Use of PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Caught in between	hand injury	N		1	1	2	2	4	Trival			
		Electrocution	Electric shock, ill health	Y		2	2	2	2	16	Tolerable			
45	Duct closing	Fall of Person	Major injury	Y	Training conducted to all engaged workers.	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Anchorage provided for fixing of safety harness. 3.Remove loose material near pheripheral area. 4.Proper supervision. 5.Training conducted to all workers. 6.Use of PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Caught in between	hand injury	N		1	1	2	2	4	Trival			
		Electrocution	Electric shock, ill health	Y		2	2	2	2	16	Tolerable			
46	Fixing of lifeline	Fall of Person	Major injury	Y	Training conducted to all engaged workers.	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Anchorage provided for fixing of safety harness. 3.Remove loose material near pheripheral area. 4.Hard barrication . 5.Duct properly closing. 6.Medical check for all engaged workers.7.Proper supervision. 8.Training conducted to all workers. 9.Use of PPEs.10.Provided safety net.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Caught in between	hand injury	N		1	1	2	2	4	Trival			
		Electrocution	Electric shock, ill health	Y		2	2	2	2	16	Tolerable			
47	Unloading of Pipe material (Mannually)	Fall of Person	Major injury	Y	Provided handgloves.	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Area should be designated. 4.Proper base shold be provided. 5.Material not stacking above 5 feet height. 6.Proper communication. 7.Proper supervision. 8.Training provided to all engaged workers. 9.Follow instruction. 10.Use of Required PPEs.		
		Fall of Material	Fracture	N		1	1	2	5	10	Tolerable			
		Caught in between	hand injury	N		1	1	2	5	10	Tolerable			
		Slip trip	Body injury	N		1	1	2	2	4	Trival			
		Sprain, pain or hiiting to p	Body injury	N		1	1	3	5	15	Tolerable			
48	Wall chasing work by use of grinding machine	Fall of person	major injury	Y	Providing safety goggles & Safety Harness	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.All electricla cable connect to ELCB/RCCB. 5.Inspection done on regular basis. 6.Heavy material not stacked at working platform. 7.Proper supervision provided. 8.Training provided to all engaged workers. 8.Follow instruction. 9.Use of required PPEs. 9. Use IS standard moving wheel Only and ensure not to use after expiry date. 10.guard provided to grinding wheel. 11.Do not use joint cable.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Fly particles	eye injury	N		1	1	2	5	10	Tolerable			
		Electrocution	Electrical shock	Y		2	2	5	2	40	moderate			
		Heath hazard	Body injury	N		1	1	2	5	10	Tolerable			
49	Pipe support fixing work by use of drill machine	Contact with drill nip	Hand injury	N	Training conducted to engaged workers	1	1	3	2	6	Trival	1. Wear tight clothes .2. Use good quality tools .3. Use ELCB . 4.Always wear Safety harness for working at height. 5.Walkway should be clear. 6.Proper housekeeping. 7.Proper working platform provided.8.Provision of supervision. 9.Trained person to do the work. 10.Use of PPEs.		
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate			
		Trapping of finger in between plate & base of	Finger injury	N		1	1	2	2	4	Trival			
		Contact with hot surfac	Burn injury	N		1	1	3	2	6	Trival			
		Flying of particules	eye injury	N		1	1	2	2	4	Trival			
		Fall of person	major injury	Y		2	2	4	5	80	moderate			
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
50	Pipe installation work manually at ceiling	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 8.Training provided to all engaged workers. 7.Follow instruction. 8.Use of required PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Back Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival			

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)		
								A	B	Severity	Probability		Risk score (AXBXSXP)	Risk level
										S	P			
51	Marking of floor	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Use of mobile scaffold, 3.Proper supervision.4.Wheel lock system implement.5.Training conducted to all engaged workers.6.Scaffold inspection signages displayed. 7.Use of appropriate PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
52	Wall cutting by use of wheel cutting machine & drilling machine	Contact with cutting whe	Hand injury	N	Before starting of activity all cutting tools inspection	1	1	3	2	6	Trival	1. Wear tight clothes .2. Use good quality tools .3. Use ELCB . 4.Always wear Safety harness for working at height. 5.Walkway should be clear. 6.Proper housekeeping. 7.Proper working platform provided.8.Provision of supervision. 9.Trained person to do the work. 10.Use of PPEs.		
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate			
		Trapping of finger in between plate & base of	Finger injury	N		1	1	2	2	4	Trival			
		Contact with hot surface	Burn injury	N		1	1	3	2	6	Trival			
		Flying of particules	eye injury	N		1	1	2	2	4	Trival			
		Fall of person	major injury	Y		2	2	4	5	80	moderate			
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
53	Making of MS conduit & PVC conduit by use of manual pipe bending machine	Slip trip	Body injury	N	Training conducted to all engaged workers.	t	1	2	2	4	Trival	1.walkway should be clear.2.Before starting of activity pipe bending m/c inspection on daily basis. 3.Proper supervision. 3.Train person to do the work. 4.Dispayed of work instruction 5.Use of Appropriate PPES.		
		Sprain, pain or hiiting to	Body injury	N		1	1	2	2	4	Trival			
54	Conduit pipe fixing work manually at celling & duct	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 8.Training provided to all engaged workers. 7.Follow instruction. 8.Use of required PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival			
55	Labour colony	Electrocution	Electric shock, ill health	Y	Provision of good accomadation to all workers.	2	2	5	5	100	moderate	1.Proper barrication done to labour colony. 2.Security arrangement. 3.Provision of fire extinguisher. 4.All electrical connection through proper ELCB/RCCB. 5.Do not put the material in roof of the room. 6.Proper drainage provided. 7.All room should be easily identified. 8.Regular cleaning of drinking water tank, non drinking water tank, toilet & record should be maintained. 9.Regular spraying of insecticides, fogging & record should be maintained. 10.Provision of doctor on regular interval. 11.Provision of dust bin. 12.External agency should appoint to disposal of garbage. 13.Provision of first aid box. 14.Emergency drill should be conduct for health emergency. 15.Regular inspection should be done. 16.Dont use naked wire in electrical holder. 17.Proper supervision. 18.Various topic of training covered to labour colony. 19.Displayed of various signages & posters related to health. 20.Use of PPEs		
		Fire	Burn injury	Y		2	2	5	5	100	moderate			
		Fall of material	fracture	N		1	1	2	2	4	Trival			
		Collapse of colony	Body injury	N		1	1	4	2	6	Trival			
		Spread of communcable	ill heath injury, diseases	Y		2	2	3	5	60	moderate			
		snake bite	ill health, fatal	Y		2	2	5	2	40	moderate			
56	Stacking of material	Fall of material	1) Fracture	N	TBT Training provided to all Workers	1	1	3	5	15	Tolerable	1.Walkway should be clear. 2.Separate storage area provided. 3. Proper arrangement of stacking material & adequate access. 4.Material should be stacked not more than 5 feet or refer IS 4082:1996. 5.Good Tools use for lifting material. 6.Proper supervision. 7.Follow instruction board. 8.Trained person to do the work. 9.Use of PPEs.		
		Caught in between	2) Body/leg injury	N		1	1	2	2	4	Trival			
57	Working with computer	Electrocution	Electric shock, ill health	Y	Earthling provided to main supply	2	2	2	2	16	Tolerable	1) proper Work station arrangment .2) Illumination glare . 3)Use of ELCB. 4)use USB . 5)Suitable excerses for eyes and body after certain intervals. 6)Proper supervision to monitor the computer. 7)Training conducted to all computer user.		
		& joint	joint pain, eye stress,	N		1	1	3	5	15	Tolerable			
		loss of data	work daily	N		1	1	1	2	2	Trival			
58	Plinth beam shuttering	Fall of person	Body injury	N	Training conducted to all engaged workers.	1	1	1	2	2	Trival	1.Walkway should be clear.2.Proper access egress provided. 3.Training conducted to all engaged workers.4.All electrical cable should be properly heighted 5.follow work instruction. 6.Use of PPEs		
		Fall of material	minor injury	N		1	1	1	2	2	Trival			
		Electricution	Electric shock, ill health	Y		2	2	2	2	16	Tolerable			
		Health hazard	Body injury	N		1	1	1	2	2	Trival			
59	Plint beam casting	Fall of person	Body injury	N	Training conducted to all engaged workers.	1	1	1	2	2	Trival	1.Walkway should be clear. 2..Proper access egress provided.3.Ensure all electrical connection to ELCB/RCCB.4.All electrical cable should be properly heighted.5.Proper supervision. 6.Train person to do the work. 7Displayed & follwed all safety instruction. 8.Use of PPEs		
		Fall of material	minor injury	N		1	1	1	2	2	Trival			
		Electricution	Electric shock, ill health	Y		2	2	2	2	16	Tolerable			
		Health hazard	Body injury	N		1	1	1	2	2	Trival			



Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
60	Preparation of water tank on upper floor	Fall of person	Injury ,Major cuts, casualty	Y	Use of safety harness & training conducted to all engaged workers	2	2	5	5	100	moderate	1)Use Safe working paltform .
		Fall of material	Injury ,Major cuts.	N		1	1	1	2	2	Trival	2) Provided safety net 3.Shuttering should be properly support. 4) Provided & fixing of life line as per IS 1926.104 & Use of proper access
		Collapse of structure	Injury ,Major cuts, casualty	Y		2	2	5	5	100	moderate	5.All cut outs/duct properly closed 6.All edges protection & staircase railing done as per IS 4912
		Electrical shock	Electrocution, ill health	Y		2	2	5	5	100	moderate	7)ELCB/RCCB provided to electrical panel board 8.Avoid to electrical cable passing through the MS material
		Caught in between	Injury ,Major cuts,	N		1	1	2	2	4	Trival	9.walkways obstruction free 10.Medical check up done or height pass test done
61	Tile cutting by use of cutting machine	Electrocution	Electric shock, ill health	Y	Use of goggle & ear plug	2	2	4	2	24	Tolerable	1. Use Good quality and standard machine. 2.Select proper base for tile.3.Proper housekeeping. 4.Machine should be connected with ELCB/ RCCB & all electical should be passed 8 feet height.5.Proper supervision. 6.Trained person to do the work. 7.Use of required PPEs.
		Wheel break	body injury	N		1	1	2	2	4	Trival	
		Fly partical	eye injury	N		1	1	2	5	10	Tolerable	
		Contact with hand	Hand injury	Y		2	1	2	5	20	Tolerable	
62	Flooring/Tile work	1.Fall of person on same	Body injury	N	Use of appropriate PPEs	1	1	2	5	10	Tolerable	1.Walkway should be free from obstruction. 2.Proper supervision. 3.Displayed of instruction board & MSDS with COSHH. 4.COSHH training conducted to all engaged workers. 5.Use of required PPEs
		2.Caught in between	injury, cut	N		1	1	2	5	10	Tolerable	
		3.Contact with chemical	Body injury	N		1	1	2	5	10	Tolerable	
63	Back filling by use of vehicles	Hit to person	Body injury	Y	Instruction displayed to gate	2	2	5	5	100	moderate	1.Vaidl driver licence. 2.Medical check up done. 3.Ensure PUC & Insurance copy . 4.Instruction hand out provided to all vehicles. 5.Follow general safety like reverse horn, head light, tail light & all applicable as per BOCW requirement (Central rules95 Chapter X/Maharashtra rules122 chapter XIV) 6.Always use wheel chock for standing vehicles. 7.Always follow rules & regulation displyed at site. 8.Follow speed limit displayed at site. 9.Always check all switch, gear, brake, horn & required switch before starting of work. 10.Provide signal man & Proper supervision. 11.Training conduct to all drivers & signalman. 12.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Break failure	Caught in between	N		1	1	2	5	10	Tolerable	
		Health Hazard	Body injury	N		1	1	2	5	10	Tolerable	
		Fall of vehicle	Fatalality	Y		2	2	5	2	40	moderate	
64	Mannual Back filling	1.Fall of person	Body injury	Y	Training conducted to all engaged workers.	2	2	2	5	40	moderate	1.Walkway should free from obstruction. 2.Area barricaded. 3.All electrical cable removed. 4.Take break 5 min atleast half an hours. 5.Proper supervision. 6.Training given to all engaged workers. 7.Displayed instruction & warning signages. 8.Use of appropriate PPEs.
		2.Fall of material	Fracture	N		1	1	2	2	4	Trival	
		3.Caught in between	hand injury	N		1	1	1	5	5	Trival	
		4.Back pain	Body injury	N		1	1	1	5	5	Trival	
		5.Electricution	Electric shock, ill health	Y		2	2	3	2	24	Tolerable	
		6.Health hazard	Body injury	N		1	1	2	5	10	Tolerable	
65	Loading of construction material (Like cement, plywood, sand, stone, scaffolding, shuttering material etc)	1.Back pain	Body injury	N	Provided appropraite PPEs	1	1	1	5	5	Trival	1.Walkway should be clear from obstruction. 2.Do not overload excessive weight.3.Do not overflow the material. 4.Proper supervision. 5.Trained person to do the work. 6.Displyed loading instruction in local language. 7.Use of PPEs.
		2.Fall of person on same	Minor injury	Y		2	2	2	5	40	moderate	
		3.Fall of material	Fracture	N		1	1	2	2	4	Trival	
		4.Caught in between	hand injury	N		1	1	1	5	5	Trival	
		5.Fly particles	eye injury	N		1	1	2	5	10	Tolerable	
66	Unloading of construction material (Like cement, plywood, sand, stone, scaffolding material, shuttering matrial etc)	Caught in between	Hand injury	N	Use of hand gloves	1	1	2	5	10	Tolerable	1)Proper housekeeping. 2)Proper communication. 3) Training provided before starting of activity. 4) Proper supervision provided. 5) Instruction displyed on local languages. 6) Use of required PPEs
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Flying particles	eye injury	N		1	1	2	5	10	Tolerable	
		Fall of person	Body injury	N		1	2	3	2	12	Tolerable	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
67	Tile cutting by use of Tile cutting machine	Electrocution	Electric shock, ill health	Y	Use of goggle & ear plug	2	2	4	2	24	Tolerable	1. Use IS standard moving wheel Only and ensure not to use after expiry date. 2.guard provided to cutting wheel. 3.Select proper base for tile. 4.Area barricaded. 5.Proper housekeeping. 6.use ELCB/ RCCB for electrical connection .7.Proper supervision. 8.Trained person to do the work.9.Display work instruction in local languages. 10.Use of required PPEs.
		Wheel break	body injury	N		1	1	2	2	4	Trival	
		Fly partical	eye injury	N		1	1	2	5	10	Tolerable	
		Contact with hand	Hand injury	N		1	1	2	2	4	Trival	
68	POP work	Fall of person	Major injury	Y	Use of PPEs like helmet, safety shoes, mask, goggles, handgloves etc	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Area cordon off. 3.Use of Proper safe scaffold inspected by competent person. 4.Use of fully planked. 5.Do not stacked heavy & loose material at platform. 6.Provision of safety belt anchorage. 7.Do not store loose material in pheriphery of building. 8. Remove of all electrical cable passing to scaffolding.9.Proper supervision. 10.Displayed of work instruction & MSDS with COSHH in local languages. 11.Training to be conducted to all engaged workers regarding handling of chemical & COSHH. 12.Use of PPEs
		Fall of material	Fracture	N		1	1	3	5	15	Tolerable	
		Contact with chemical, ce	Hand injury	N		1	1	2	2	4	Trival	
		Electrocution	Electric shock, ill health	Y		2	2	5	2	40	moderate	
		Health hazards	Body injury	N		1	1	2	5	10	Tolerable	
69	Transist Mixer	Hit to person	Body injury	Y	Instruction hand out issue to all drivers	2	2	5	5	100	moderate	1.Vaild driver licence. 2.Medical check up done. 3.PUC & Insurance copy check. 4.Instruction hand out provided to all vehicles. 5.Follow general safety like reverse horn, head light, tail light & all applicable as per BOCW requirement (Central rules95 Chapter X/Maharashtra rules122 chapter XIV) 6.Always use wheel chock for standing vehicles. 7.Always follow rules & regulation displyed at site. 8.Follow speed limit displayed at site. 9.Always check all switch, gear, brake, horn & required switch before starting of work. 10.Proper supervision. 11.Training to all drivers. 12.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Break failure	Caught in between	N		1	1	2	5	10	Tolerable	
		Fall of vehicle	Fatalality	Y		2	2	5	2	40	moderate	
70	Formwork	Fall of person	Major injury	Y	TBT Training provided to all Workers	2	2	5	5	100	moderate	1.Walkway should be clear. 2.Proper staggng should be provided with proper working platform. 3.Anchorage provided for fixing of safety harness. 4.All duct/ cutout, lift shaft properly closed. 5.Protection of all edges barrication. 6.Provision of safety net for outside coloumn as well as inside of lift shaft. 7.Proper supervision. 8.Displayed instruction & warning signages in local languages. 8.Trained person to do the work.9.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Caught in between	Hand injury	N		1	1	2	2	4	Trival	
71	Chipping work	Contact with moving part	Hand injury	N	Nose mask provided to all engage workers.	1	1	3	2	6	Trival	1. Use IS standard moving wheel Only and ensure not to use after expiry date. 2.guard provided to chipping wheel. 3. Use ELCB for ele.connection. 4.Do not use joint cable. 5.Proper supervision. 6.Regular inspection done. 7.Trained person to do the work. 8.Cracks should be checked before installation by ring test.9..Displyed work instruction in local languages.10.Use of PPEs
		Flying of particules	eye injury	N		1	1	2	2	4	Trival	
		Electrical Shock	body injury may be fatal	Y		2	2	5	5	100	moderate	
		Wheel break	Body injury	N		1	1	3	2	6	Trival	
		Noise	Hearing loss	N		1	1	2	5	10	Tolerable	
72	Use of Hydrolic Mobile Tower crane	Fall of material	Body injury	N	Use of PPEs & Third party done	1	1	2	2	4	Trival	1.Walkway should be clear. 2.Area should be barricaded. 3.Third party inspection should be done. 4.Medical examination to be done. 5.Use of good quality of crane material. 6.Proper base to be provided with proper support. 7.Inspection done on regular basis & record maintaned 8.Before starting of activity check all limit switch. 9.Provision of fire extinguisher in operator cabin. 10.Use of Seat belt. 11.Fixing of nylon rope to all lifting material 12.Proper communication to operator & signal man. 13. Trained signal man provided.14. Train person to do the work. 15.Proper supervision. 16.Use ELCB/RCCB & regular checking of earthling. 17.Displayed instruction & safety warning signages & load chart in local languages. 18.Use of PPEs
		Fall of bucket or shuttering material	major injury	N		1	1	2	2	4	Trival	
		wire rope break	minor injury	N		1	1	1	2	2	Trival	
		Collapse of structure	major injury	Y		2	2	5	2	40	moderate	
		hit by person	body injury	N		1	1	2	2	4	Trival	
		Fire	loss of property, body injur	Y		2	2	4	2	32	moderate	
		Electrocution	Electric shock, ill health	Y		2	2	4	2	32	moderate	
73	Use of Farana	Fall of material	Body injury	N	Induction given to Farana operator, Inspection done before entering of new Farana & all documents will be checked	1	1	2	2	4	Trival	1.Walkway should be clear. 2.Ensure proper weather protection. 3.Third party inspection should be done. 4.Medical examination to be done. 5.Valid driving licence. 6.Follow general safety like reverse horn, head light, tail light & all applicable as per BOCW requirement (Central rules95 Chapter X/Maharashtra rules122 chapter XIV) 7.Always use wheel chock for standing vehicles. 8.Inspection done on regular basis & record maintaned 9.Before starting of Farana all limit switch should be checked. 10.Provision of fire extinguisher in operator cabin. 11.Use of Seat belt. 12.Fixing of nylon rope to all shifting material 13.Proper communication to operator & signal man.14. Train person to do the work. 15.Proper supervision.16.Displayed instruction & safety warning signages & load chart & Form no-11 inside Farana. 17.Use of PPEs
		wire rope break	minor injury	N		1	1	1	2	2	Trival	
		Collapse of structure	major injury	Y		2	2	5	2	40	moderate	
		hit by person	body injury	N		1	1	2	2	4	Trival	
		Fire	loss of property, body injur	Y		2	2	4	2	32	moderate	
		Electrocution	Electric shock, ill health	Y		2	2	4	2	32	moderate	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)		
								A	B	Severity	Probability		Risk score (AXBXSXP)	Risk level
										S	P			
74	Installation of Fire pipe, plumbing pipe, HVAC duct, IBMS cable at ceiling & duct	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform or mobile scaffold with proper tag provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.All electrical equipement connect with ELCB/RCCB. 7.Electrical cable passing through proper height. 8.Anchore fasher used for supporting of pipe. 9.Proper Safety harness achoragement provided. 10.Ensure all duct closed properly. 11. supervision provided. 12.Training provided to all engaged workers. 13.Follow work instruction. 14.Use of required PPEs.		
		Fall of Material	fracture	N		1	1	2	2	4	Trival			
		Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival			
		Eletricution	Electric shock, ill health	Y		2	2	4	2	32	moderate			
89	Excavation for Pipe fixing & Chamber making	Collapse of structure	injury, casualty	y	Training conducted to all engaged workers.	2	2	5	3	60	moderate	1) Hard barrication provided 1 meter away from excavation.2) Loose mateial not stacked with in 1.5 m. 3)Proper excavation slope maintained. 4) Emergency access provided. 5) All entry/ exit maintain clear. 6) Regular maintainance all vehicles & equipment. 7) Health check up done involve workers. 8)Follow excavation work permit system. 9) Excavation instruction dispalyed in local language. 10) Proper supervision. 11) Trained person to do the work. 12) Use of PPEs		
		Fall of person	Injury ,Major cuts, casualty	y		2	2	5	2	40	moderate			
		Fall of vehicles	Injury ,Major cuts, casualty	Y		2	2	5	3	60	moderate			
		Failure of excavator	injury	N		1	1	2	2	4	Trival			
		Electrocution	electric shok , ill health	Y		2	2	5	5	100	moderate			
		struck into	injury, casualty	N		2	2	5	3	60	moderate			
75	HVAC Duct making	Fall of person	Injury major cut casualty	Y	Inside area provided to making duct	2	2	5	3	60	moderate	1.Area barricaded. 2.Walkway obstruction should be clear.3.Experience & trained ducting technician is allowed for duct boxing.4.HSE induction is given to all ducting technician.5.During the duct boxing work cotton hand gloves should be ensuring.6. Medical check up should be done to all workmen.7.Ducting workman given the knowledge of hearing hazard.8.Supervision is ensured.9.Display the sign of noisy area & instruction dispalyed to local languages. 10.Use of PPEs like ear plug, helmet, safety shoes & handgloves.		
		Fall of material	Injury ,Major cuts, casualty	Y		2	2	3	2	24	Tolerable			
		Contact with sharp object	Injury major cut casualty	N		1	1	3	2	6	Trival			
		Vibration hazard	Hand arm vibration syndrome (HAVS). & full body vibration	N		1	1	2	2	4	Trival			
		Noise	Temporary disablement position, Hearing loss	N		1	1	2	2	4	Trival			
76	Duct insulation for nitrile rubber	Fire	loss of property	Y	Training to be conducted to all engaged workers	2	2	5	5	100	moderate	1.Proper housekeeping. 2. Fire extinguisher to be present near working area. 3.One person or helper should be present at the time of bitumen burn.4.Hot work permit has to be taken while the working of bitumen burn.5.All area is properly barricaded. 6.Workman to aware the hazard of bitumen Bern through to toolbox meeting. 7.Warning sign should be displayed at working site. 8.Proper supervision. 9.Use of PPEs.		
		Contact with skin	Skin injury	N		1	1	3	2	6	Trival			
77	Piping Insulation	Fire	loss of property	Y	Training to be conducted to all engaged workers	2	2	5	5	100	moderate	1.Proper housekeeping. 2. Fire extinguisher to be present near working area. 3.One person or helper should be present at the time of bitumen burn.4.Hot work permit has to be taken while the working of bitumen burn.5.All area is properly barricaded. 6.Workman to aware the hazard of bitumen Bern through to toolbox meeting. 7.Warning sign should be displayed at working site. 8.Proper supervision. 9.Use of PPEs.		
		Contact with skin	Skin injury	N		1	1	3	2	6	Trival			
78	Scrap Insulation material	Contact with sharp object	Injury major cut casualty	N	Separate srape yard provided	1	1	3	2	6	Trival	1.Area barricaded. 2.Walkway should be clear. 3.Wastes insulation scrap material shall be properly collected. 4.Insulation scrap material collecting the one place, and fortnightly disposed the disposal yard. 5.Garbage shall provided at convenient location of the sites and this garbage hall be maintained neatly. 6.Dustbin shall be provided to collect the various types of wastes separately. 7.All electrical cable connected with proper ELCB/RCCB & cable passing through proper height. 8.Proper supervision. 9.Training conducted to all workers. 10.Displayed various instruction related activity in local languages. 11.Use of PPEs.		
		Health hazard	Body injury	N		1	1	2	5	10	Tolerable			
		Fall of person	Injury major cut casualty	Y		2	2	5	3	60	moderate			
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate			
79	Piping & HVAC duct errection	Fall of person	Injury major cut casualty	Y	Proper platform provided	2	2	5	3	60	moderate	1.Load should be properly ascertained to identify of center of gravity and load at slinging point before handling any equipment.2.Only certified lifting & haulage tackles, ropes, sling to be used as visual check must be check regarding fitness of all these items.3.None of these should be		
		Fall of material	Injury major cut casualty	N		2	2	3	2	24	Tolerable			
		Caught in between	hand injury	N		1	1	3	2	6	Trival			

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
												overloaded. SWL should be clearly marked.4.. Pulley block suitable for fiber rope should not be used for steel wire rope.5.. Loose bolts, nuts, welding bits and tools must be kept in boxes in not on ducting structure.6.When a ducting is erected, it should be kept in vertical position using 2 tag lines.7.Tag lines should be used to controlling the load.8.. No person should walk, stand, or work beneath suspended load.9.Proper working platform provided with prag system. 10.Proper supervision. 11.Training conducted to all engaged workers. 12.Instruction displayed in local languages. 13.Use of PPEs.
80	Partition work	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 8.Training provided to all engaged workers. 7.All electrical equipement connect with proper ELCB. 8.All electrical cable should be proper height. 9.Follow instruction. 8.Use of required PPEs.
		Fall of Material	fracture	N		1	1	2	2	4	Trival	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival	
81	False ceiling work	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 8.Training provided to all engaged workers. 7.All electrical equipement connect with proper ELCB. 8.All electrical cable should be proper height. 9.Follow instruction. 8.Use of required PPEs.
		Fall of Material	fracture	N		1	1	2	2	4	Trival	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival	
82	Joinery work	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 8.Training provided to all engaged workers. 7.All electrical equipement connect with proper ELCB. 8.All electrical cable should be proper height. 9.Follow instruction & MSDS displyed. 8.Use of required PPEs.
		Fall of Material	fracture	N		1	1	2	2	4	Trival	
		Contact with chemical	Hand & body part injury	N		1	1	2	2	4	Trival	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pain ,sprain	Body injuruy	N		1	1	2	2	4	Trival	
83	Metal work of Frame work	Fly particles	Eye injury	N	PPEs provided to all workers	1	1	2	2	4	Trival	1.Area barricaded, 2.Walkway should be clear. 3.All electrical equipement connected with ELCB. 4.All electrical lying with proper height. 5.Proper supervision. 6.Training conducted to all engaged workers. 7.Displyed of instruction board in local languges. 8.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pain ,sprain	Body injury	N		1	1	2	2	4	Trival	
84	Polishing work	Fly particles	Eye injury	N	MSDS Training given to all engaged workers	1	1	2	2	4	Trival	1.Area barricaded, 2.Walkway should be clear. 3.All electrical equipement connected with ELCB. 4.All electrical lying with proper height. 5.Proper supervision. 6.Training conducted to all engaged workers. 7.Displyed of instruction board in local languges. 8.Use of PPEs
		Contact with chemical	Body part injury	N		1	1	2	2	4	Trival	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Pain ,sprain	Body injury	N		1	1	2	2	4	Trival	
85	Glass panneling	Fall of person	major injury	Y	TBT Training provided to all Workers	2	2	4	5	80	moderate	1.Walkway should be clear. 2.Proper housekeeping. 3.Proper working platform provided. 4.Inspection done on regular basis. 5.Heavy material not stacked at working platform. 6.Proper supervision provided. 7.Training provided to all engaged workers.8.Follow instruction. 9.Use of required PPEs.10.Use of good quality material
		Fall of Material	fracture	N		1	1	2	2	4	Trival	
		Pain ,sprain	Body injury	N		1	1	2	2	4	Trival	
86	Use of gypsum	Fly particles	Eye injury	N	MSDS Training given to all engaged workers	1	1	2	2	4	Trival	1.Walkway should be clear. 2.MSDS displyed. 3.Training of MSDS conducted to all workers. 4.Proper supervision.5. Instruction board displyed in local languages. 6.Use of required PPEs
		Health hazard	contact with chemical	N		1	1	2	2	4	Trival	
87	Fabrication work or yard	UV /IR radiation	eye injury	N	Use of face sheild	1	1	3	5	15	Tolerable	1.All Flammable & inflammable material from the area should be removed & kept 5 m away from fabrication yard or work area .2. Sufficient number of water / sand buckets/ portable fire extinguishers etc should be kept in fabrication work or yard . 3. Welder should watch the fire after
		Contact with hot object	hand, arm injury	N		1	1	3	5	15	Tolerable	
		Electrocution	Electric shock, ill health	Y		2	2	4	5	80	moderate	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E	Scale	Risk rating				Control measure (tobe taken)
								A	B	Severity S	Probability P	
		Fire	Burn injury	Y		2	2	4	2	32	moderate	30 minutes of completion of job. 4. Special care should be taken if any welding & gas cutting required to be carrying out on diesel /chemical paint tanks or pipe lines. 5.welding slag should be shielded from falling down in case Overhead welding and should be sealed with non-Combustible material. 6. Job should be constantly supervised and all precautions should be followed strictly.7. If possible screen shall be used to avoid health hazard of the persons who are working in that area.8. Use ELCB for Ele.connection. 9.Proper lug used. 10.Provided Earthling. 11.Trained person to do the work. 12.Medical should be check. 13.Proper supervision. Use of PPEs. 13. Use trolley, flash back arrestor/NRV to both end of gas cutting set. 14.Do not play the cylinder. 15.Always store upright position. 16.Do not mixed with Actetylene & oxygen cylinder. 17.Proper identification dispalyed.
87	Unloading of 15 tonn Transformer by use of Mobile crane	Fall of Person	Major injury	Y	Training provided to all workers.All applicabe doc like medical examination of driver, licence & third party inspection record checked before starting of unloading work	2	2	5	5	100	moderate	1. Work permit must be issued before starting of work, with proper information.2.Tool Box talk & specialised training to be given to the persons before starting of the work.3. Trained persons must be on the job.4.First Aid material should be available at the work place.5.Strict Supervision required during the work.6. Equipments / Tools / PPE should be in Good condition & to be checked.7.Proper Communication system provided.8. .Proper housekeeping. 9.Valid driver licence. 10.Medical examination check to mobile operator 11.Ensure all lifting tools & tackles should be inspected to third party .12.Remove of all Electrical connection. 11 Area barricaded. 12.Use of Nylon rope for supporting of transformer. 13.Use of PPEs.
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Caught in between	hand injury	N		1	1	2	2	4	Trival	
		Toppling of mobile crane	major injury	Y		2	2	5	5	100	moderate	
		Electrocution	Electrical shock	Y		2	2	5	5	100	moderate	
		Sprain, pain or hiiting to	Body injury	N		1	1	2	2	4	Trival	
108	Unloading of Electical panel, 33KV HT panel by use of Farana	Fall of person	Major injury	N	Induction given to Farana operator, Inspection done before entering of new Farana & all documents will be checked	1	2	5	5	50	moderate	1.Walkway should be clear. 2.Ensure proper weather protection. 3.Third party inspection should be done. 4.Medical examination to be done. 5.Valid driving licence. 6.Follow general safety like reverse horn, head light, tail light & all applicable as per BOCW requirement (Central rules95 Chapter X/Maharashtra rules122 chapter XIV) 7.Always use wheel chock for standing vehicles. 8.Inspection done on regular basis & record maintaned 9.Before starting of Farana all limit switch should be checked. 10.Provision of fire extinguisher in operator cabin. 11.Use of Seat belt. 12.Fixing of nylon rope to all shifting material 13.Proper communication to operator & signal man.14. Train person to do the work. 15.Proper supervision.16.Displayed instruction & safety warning signages & load chart & Form no-11 inside Farana. 17.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Caught in between	hand injury	Y		1	1	2	2	4	Trival	
		wire rope break	minor injury	N		2	2	5	2	40	Trival	
		hit by person	body injury	Y		2	2	4	2	32	moderate	
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
88	Erection of Transformer part 10Mva work by use of Farana	Fall of person	Major injury	N	Induction given to Farana operator, Inspection done before entering of new Farana & all documents will be checked	1	2	5	5	50	moderate	1.Walkway should be clear. 2.Ensure proper weather protection. 3.Third party inspection should be done. 4.Medical examination to be done. 5.Valid driving licence. 6.Follow general safety like reverse horn, head light, tail light & all applicable as per BOCW requirement (Central rules95 Chapter X/Maharashtra rules122 chapter XIV) 7.Always use wheel chock for standing vehicles. 8.Inspection done on regular basis & record maintaned 9.Before starting of Farana all limit switch should be checked. 10.Provision of fire extinguisher in operator cabin. 11.Use of Seat belt. 12.Fixing of nylon rope to all shifting material 13.Proper communication to operator & signal man.14. Train person to do the work. 15.Proper supervision.16.Displayed instruction & safety warning signages & load chart & Form no-11 inside Farana. 17.Use of PPEs
		Fall of material	Fracture	N		1	1	2	2	4	Trival	
		Caught in between	hand injury	Y		1	1	2	2	4	Trival	
		wire rope break	minor injury	N		2	2	5	2	40	Trival	
		hit by person	body injury	Y		2	2	4	2	32	moderate	
		Electrocution	Electric shock, ill health	Y		2	2	5	5	100	moderate	

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E		Risk rating				Control measure (tobe taken)
						A	B	Severity	Probability	Risk score (AXBXSXP)	Risk level	
								S	P			
89	Dewatering	Electricution	Electrical shock	Y	Hard barrication provided, Using for shifting of pump in inside of excavation	2	2	5	5	100	moderate	1.Walkway clear. 2.Always material stack 1.5 meter away from excavation pit. 3.Proper earthing provided. 4. All electrical connection with ELCB/RCCB. 5.Provided proper access & egress. 6.Proper supervision. 7.Training conducted to all engaged workers. 8.Wok instruction & signages dispyled. 9.Use of appropriate PPEs
		Noise hazard	Ear injury	N		1	1	2	2	4	Trival	
		Fall of person	Body injury	Y		2	2	5	5	100	moderate	
		Caught in between	Hand injury	N		1	1	2	2	4	Trival	
		Fire	Burn	N		1	2	4	2	16	Tolerable	
90	Waterproofing on top floor	Fall of person	Major injury	Y	PPEs provided to all workers	2	2	5	5	100	moderate	1.Do not allowed to seat on edges of building. 2.Training conducted for all engaged workers regarding MSDS. 3. Always dispyled First aid measure in local languges. 4.Face mask provided to all engaged workers. 5.Do not stacking loose material in phereiphery building. 6.Do not smoking .7.All electrical cable lying on proper height. 8.Use proper industrial socket. 9.All electrical board connect with ELCB/RCCB. 10.Proper supervision. 11.Work instruction & signages dispyled. 12.Use of PPEs
		Contact with chemical	Body injury	N		1	1	2	2	4	Trival	
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Fire	Burn injury	Y		2	2	4	2	32	moderate	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Fly particles like Chemical	Eye injury	N		1	1	2	2	4	Trival	
91	Waterproofing inside of water tank	Contact with chemical	Body injury	N	TBT conducted to all engaged worker	1	1	2	2	4	Trival	1.Ladder provided. 2.Walkway free from obsrtuction. 3. Soft barrication provided. 4.One stand by workers provided. 5.Proper illumination provided. 6. Proper ventillation provided. 7.Confined space work permit issued. 8.All electrical board connect with ELCB/RCCB. 9.Fire extinguisher provided. 10.No smoking insided of water tank. 11.MSDS training conducted to all engaged workers. 12.Proper supervision. 13.Work instruction & signages dispyled. 14.Use of PPEs
		Fall of person	Body injury	Y		2	2	5	5	100	moderate	
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Fire	Burn injury	Y		2	2	4	2	32	moderate	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Fly particles like Chemical	Eye injury	N		1	1	2	2	4	Trival	
		Health hazard/Unconsiou	Vomiting & minor injury	N		1	1	2	2	4	Trival	
92	Cleaning inside of water tank	Fall of person	Body injury	Y	TBT conducted to all engaged worker	2	2	5	5	100	moderate	1.Ladder provided. 2.Walkway free from obsrtuction. 3. Soft barrication provided. 4.One stand by workers provided. 5.Proper illumination provided. 6. Proper ventillation provided. 7.Confined space work permit issued. 8.All electrical board connect with ELCB/RCCB. 9.Fire extinguisher provided. 10.No smoking insided of water tank. 11.Proper supervision. 12.Work instruction & signages dispyled. 13.Use of PPEs
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Fire	Burn injury	Y		2	2	4	2	32	moderate	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Fly particles like Chemical	Eye injury	N		1	1	2	2	4	Trival	
		Health hazard/Unconsiou	Vomiting & minor injury	N		1	1	2	2	4	Trival	
93	Material shifting inside of water tank	Fall of person	Body injury	Y	TBT conducted to all engaged worker	2	2	5	5	100	moderate	1.Ladder provided. 2.Walkway free from obsrtuction. 3. Soft barrication provided. 4.One stand by workers provided. 5.Proper illumination provided. 6. Proper ventillation provided. 7.Confined space work permit issued. 8.All electrical board connect with ELCB/RCCB. 9.Fire extinguisher provided. 10.No smoking insided of water tank. 11.Proper supervision. 12.Work instruction & signages dispyled. 13.Use of PPEs. 14.Proper communication
		Fall of material	Body injury	N		1	1	2	2	4	Trival	
		Fire	Burn injury	Y		2	2	4	2	32	moderate	
		Electricution	Electric shock, ill health	Y		2	2	5	5	100	moderate	
		Fly particles like Chemical	Eye injury	N		1	1	2	2	4	Trival	
		Health hazard/Unconsiou	Vomiting & minor injury	N		1	1	2	2	4	Trival	
94	Bitumen Burn	Health Hazards	Explosion, Skin injury	Y	Adquate supervision shall be provided	2	2	3	3	36	Trival	1. Housekeeping should be done near bitumen burn area.2. Hot work permit has to be taken while the working on bitumen burn from SPCL.3. Experience & trained workmen shall be deployed for betumen work. 4. Necessary PPE should be given to all workmen.5. Fire extinguisher or fire bukets should be present near work.6. One person or helper should be present at the time of bitumen burn.7. Workmen to aware the hazards through to TBT or special training.8. All working area shall be properly barricaded.9. Bitumen burn area should be covered by shed.
		Fire hazards	or Property damage									
95	DG set	Open un insulated joints of electrical contacts	Electrical shock	N	1. Insulated cable joints. 2. Fire extinguisher provision.	2	1	3	3	18	Tolerable	1. Male-female coupler for cable joints. 2. Fire extinguisher provision.3. Necessary PPE should be given to all workmen
96	Erection Works	Material struck to person	Major cut, injury	N	Tag line/Guide Line is provided for Un loading/Shifting works. Work permit system. Load calculation for material shifting.	2	1	4	3	24	Tolerable	1. Lifting/erection plan to be made. 2. Load chart to be prepared before starting of the work. 3. TBT should be conducted. 4. PPE's to be provided. 5. Test certificate of lifting tools & tackles to be checked and ensured validity. 6. Operators medical examination of operators to be done. 7. Area barricading to be done. 8. Area leveling should be done for proper access. 9. Safe work method statement to be prepared as pe the activity plan.
		Fall of material	Body injury, property dama									
		Toppling of crane	Fall of crane									

Sr no	Activity/Task	Hazard	Risk	Legal (Y/N)	Existing control Measure	N/E		Scale		Risk rating			Control measure (tobe taken)
						A	B	Severity S	Probability P	Risk score (AXBXSXP)	Risk level		
97	Housekeeping	Dust generation, fly mate	eye irritation, inhalation problems	N	Tool box talk, use of safety goggles, nose mask.	1	1	1	2	2	Trival	Tool box talk, use of safety goggles, nose mask., training to be provided for safe work. Proper PPEs. Man movement to be restricted in the area where housekeeping is going on.	
98	Fixing of sheet	Fall of person	Injury, Fatality	Y	Work permit system, Area barricading, safe working method statement, scaffolding staging with ladders for access,	2	4	4	3	96	moderate	1. Area barricading. 2. ccess should be kept clear3. Use double insulated electrical connection cable, ELCB/RCCB at panel board to avoid electuction. 4. Height Work Permit takes from conserved authority. 5.Ladder provided for safe access.6. Use full body harness with double layn yard and life line dully tied with stable structure for fall protection. 7. Work method statement prior to start of work. 8. Tool box talk before start of work. 9. Virtigo test by surgeon for the workers/operators before starting of the work for height work.	
		Fall of material	Material damage										
		Tripping Hazard	fall of person due to obstac										
		Eletrocution	Electrical shock										
99	Scaffolding erecting and dismantling	Collapase of scaffolding,	Material damage	Y	1. Ensure scaffolding is erected as per standard. 2. Ensure stability of scaffold before Starting the work. 3. Green tag is displayed. 4. Scaffold to be erected on leveled surface. 5. Ensure scaffolding is in good condition	2	4	3	3	72	moderate	1. Ensure scaffolding is erected as per standard. 2. Ensure stability of scaffold before Starting the work. 3. Green tag is displayed. 4. Scaffold to be erected on leveled surface. 5. Ensure scaffolding is in good condition. 6. Ensure use of PPEs like safety helmets, full body harness with double lanyard, fall arrestor, safety shoes, etc. 7..Proper supervision 8. Training to be provided to workers. 9. Area should be barricaded.	
		Unstable displacement	Material damage										
		Fall of person	minor injury, major injury										
		Fall of material	Material damage										
100	Concreting by using concrete bucket by farana	Fall of bucket.	Equipement damage	Y	1. Area Barricading. 2. Full body harness for workers at height. Work permit system.	2	2	2	2	16	Tolerable	1. Work method statement should be made before starting of the work. 3. Area barricading should be done. 4. Work permit should be taken before starting of the activity.5. Working activity plan should be prepared and attached with work permit. 6. Concrete spillage should be controlled to avoid soil contamination and other environment hazards.	
		Fall of concrete	Soil contamination										
		Fall of person from height	Injury to person										
101	Fixing of Roof ventilator	fall of material	Material damage	Y	Work permit system, Area barricading, safe working method statement, proper insulated electrical connections and wires.	2	2	3	2	48	moderate	1.Work permit system.2. Area barricading.3. safe working method statement4. proper insulated electrical connections and wires.5. Test certificate of tools & tackels. 6. Medical examination of operators. 7. Vertigo test for height test of the workers. 8. Provision of ELCB/RCCB at electrical panel board. 8. Daily inspection check list for the activity. 9. Proper supervision.	
		fall of person	Injury to person										
		Eletrocution	Electrical shock										