

SIGMA CONSTRUCTION CO

Project HS Risk Assessment

Project Name:		Date:	
Activity/ Facility/ Equipment/ Substance*:	Shuttering/ De-shuttering	No.	RA-R017

RISK ASSESSMENT MATRIX

			Severity				
			No medical treatment or measurable physical effects	Illness requiring Medical Treatment	Illness requiring hospital admission	Illness in permanent impairment	Fatality
			First aid treatment only	Injury requiring Medical Treatment but not Lost Time	Lost Time Accident	Serious Injury requiring hospitalization	Single or multiple Fatality
Likelihood			1	2	3	4	5
Most Unlikely	Never heard of in construction industry.	1	Low				
Unlikely	Known to occur in the other ICs & construction industry	2					
Likely	Incident occurred in our IC.	3	Medium				
Most Likely	Happens several times per year in our IC	4					
Inevitable	Happens several times per year in a site.	5			High		

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HIRA Prepared by: (Names of Team Members)	
1.	2.
3.	4.
5.	6.

Indicate Critical control points (CCP) for this HIRA:

- 1.
- 2.
- 3.
- 4.
- 5.

Date	Revision No.	Details of the Revision	Page(s)

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Work Activity	Routine / Non Routine		Emergency	Potential Hazards	Consequences / Possible Outcome	Existing Controls (EI, Sb, Er, Ad & PPE)			Opportunity if Any	Residual Risk Score			Remark	
						Likelihood	Severity	Base Risk Level		Likelihood	Severity	Residual Risk Score		
Manpower Mobilization	R	L		Untrained worker Unfit worker	Body Injury, permanent disability, damage to property	1. Ensure safety induction training for new comers. 2. Deploy only experienced worker at site. 3. Screening process to be done 4. Provide the rest room for the workers. 5. No unauthorized person to enter the work area. 6. Job Specific Training shall be conducted before start the work activity. 7. Ensure approved work method statement	2	4	M	1. All activities should be carried out under dedicated supervisor. 2. Ensure PPE control. 3. There should not be any isolated work without supervision. 4. Follow work permit.	1	2	L	
Improper access	R			Slip, Trip hazard	Injury to person	1) Safe access to be identified and mark. 2) Remove unwanted material from access. 3) Ensure adequate illumination in access.	2	3	M	Deploy dedicated housekeeping team compliance with SOP no-2	2	2	L	

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Vehicle Movement to unloading point	R		<ol style="list-style-type: none"> 1. Hit to member. 2. Misleading of Vehicle 3. Overturning the vehicle 	Body Injury, permanent disability or fatality	<ol style="list-style-type: none"> 1. Ensure obstruction free accesses to be provide work place. 2. Bend / remove unwanted protruding nails. 3. Activity should be carried under by Supervision. 4. More than 20Kg lifting is prohibited. 5. Job Specific Training shall be conducted before start the work activity. 6. Ensure shuttering material stack height to be limited to 1.2 mtr. 	2	4	M	<ol style="list-style-type: none"> 1. Ensure administrative control. 2. Ensure engineering control. 3. All activities should be carried out under dedicated supervisor. 4. Ensure PPE control. 5. There should not be any isolated work without supervision. 6. Follow work permit 	2	2	L	
Making of shuttering material	R		<ol style="list-style-type: none"> 1. Electrical 2. Health hazard 3. Slip / trip fall 4. Eye injury 	Body Injury, permanent disability, fatality	<ol style="list-style-type: none"> 1. Ensure all electrical connection given through ELCB (capacity 30 mA). 2. Ensure use of industrial pin top. 3. Ensure electrical connection shall be taken only through authorized electrician. 4. Ensure joint free cable is used for the electrical connection and protection from sharp edges. 5. Ensure no contact of cable with metal by using insulating sleeves and plastic ties 6. Ensure work areas are barricaded. 7. Ensure ply cutting m/c & hand tools inspected by authorized 	2	4	M	<ol style="list-style-type: none"> 1. Ensure administrative control. 2. Ensure engineering control. 3. All activities should be carried out under dedicated supervisor. 4. Ensure PPE control. 5. There should not be any isolated work without supervision. 6. Follow work permit 	2	2	L	

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					<p>person.</p> <p>8. Use all required PPE's (All mandatory PPE's along with Cotton hand gloves, Safety goggle.)</p> <p>9. Ensure maintain good housekeeping in the area.</p>							
Shuttering and De-shuttering material	R		<p>1. Material fall</p> <p>2. Person fall</p> <p>3. Slip / trip</p> <p>Fall</p>	Burn injury or fatality.	<p>1. Ensure the ground and access is leveled, compacted properly free from any obstructions.</p> <p>2. Ensure all Shuttering materials are being shifted by hand to hand, no throw catch and dropping of shuttering.</p> <p>3. Ensure the work permit before start of work.</p> <p>4. Collect the nails into toolkit.</p>	2	4	M	<p>1. Ensure administrative control.</p> <p>2. Ensure engineering control.</p> <p>3. All activities should be carried out under dedicated supervisor.</p> <p>4. Ensure PPE control.</p> <p>5. There should not be any isolated work without supervision.</p> <p>6. Follow work permit</p> <p>7. Hard barricaded shuttering and De-shuttering area during work.</p>	2	2	L

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Shuttering and De-shuttering material in height	R		1. Material fall 2. Person fall 3. Slip / trip Fall	Permanent disability or fatality	1. Ensure the ground on which the scaffolding is erected is thoroughly leveled and compacted, don't use bricks/stones, wooden things etc. below base. 2. Ensure platforms are constructed with grating & tied with binding wire (double) and supported properly. 3. Ensure working platform secured by mid rail and top railing. 4. Ensure provide working platform, safe access & use of full body safety harness. 5. Ensure only medically fit & certified persons allow doing the work. 6. Ensure height work permit is taken before start of work. 7. Ensure green tag in scaffolding. 8. Ensure use proper PPE.	2	4	M	1. Ensure administrative control. 2. Ensure engineering control. 3. All activities should be carried out under dedicated supervisor. 4. Ensure PPE control. 5. There should not be any isolated work without supervision. 6. Follow work permit 7. Hard barricaded shuttering and De-shuttering area during work.	2	2	L	
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Working during Night	R		<ol style="list-style-type: none"> 1. Insufficient illumination. 2. Slip Trip Fall 3. Material fall 4. Person fall 	Permanent disability or fatality	<ol style="list-style-type: none"> 1. Ensure sufficient illumination provided in working area (50 Lux for walkway, roads, & min 100 Lux working place) 2. Ensure visibility of workers, Illumination to be checked by Lux meter. 3. Ensure all access & pathway should be clear & well illuminated. 4. Continuous supervision to be ensured. 5. Ensure lone working not allowed 	2	4	M	<ol style="list-style-type: none"> 1. Ensure administrative control. 2. Ensure engineering control. 3. All activities should be carried out under dedicated supervisor. 4. Ensure PPE control. 5. There should not be any isolated work without supervision. 6. Follow work permit 7. Hard barricaded shuttering and De-shuttering area during work. 8. Sufficient illumination provide in working area. 	2	1	L	
Housekeeping	R		<ol style="list-style-type: none"> 1. Environment impact 2. Housekeeping leads to slip trip fall hazards 	Permanent disability or fatality	<ol style="list-style-type: none"> 1. Work areas are barricaded. 2. All unwanted material are kept in it's define area. 3. All shuttering material are proper stacking at storage area. 3. Use all mandatory PPE's. 	2	3	L	-	-	-	-	

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Emergency situation	N/R		Emergency	Unawareness of ERP	Unplanned emergency movement lead into catastrophic effect	2	4	M	Periodical training and mock drill should be conduct.	1	2	L	
					1) Ensure availability of ERP at site. 2) Ensure availability of emergency equipment at site. 3) Conduct training to enhance awareness.								

Project Manager/ Construction Manager / Section In-charge

EHSO

El – Elimination, Sb: Substitution, Er – Engineering Control, Ad – Administrative & PPE - Personal Protective Equipment

CCP: Critical control points are most important measures. Without these measures said activity will not be allowed (eg: Legal requirement, work permit etc.)