RISK ASSESSMENT WIZARD

Building Site Management

Risk Assessment

CREW DETAILS

IN AN EMERGENCY CALL:

Crew Leader:	**Project Phone Number:**
Crew:	

PROJECT OVERVIEW

Purpose of Project:	**Date of Project:**

Benefit of Project: Enhances site safety and minimizes accidents. | Ensures compliance with health and safety regulations. | Facilitates effective communication among stakeholders. | Improves project scheduling and timely completion. | Increases overall project efficiency and productivity. | Optimizes resource allocation and reduces waste.

HAZARDS

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Compressed air systems	Sudden releases, equipment malfunctions, high-pressure injuries	Allows operation of pneumatic tools, increasing productivity.	Regularly inspect and maintain equipment, train workers on safe usage, and ensure pressure levels are monitored. Provide PPE to protect against sudden releases of air. **(ALL)**	Workers	Before Measure: **High** After Measure: **Med**
Lone working	Delayed response to emergencies, communication challenges	Allows flexibility to deploy workers where needed without requiring additional personnel.	Implement a robust communication system, conduct risk assessments for tasks, and establish regular check-in procedures to monitor lone workers' safety. **(ALL)**	Lone workers	Before Measure: **High** After Measure: **Med**

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Moving machinery	Collisions, entrapment, operator error	Allows efficient handling and movement of heavy materials, saving time and effort.	Establish clear zones separating machinery operations from pedestrian pathways. Provide operators with thorough training, regularly maintain machinery, and use spotters or communication tools to enhance situational awareness. **(ALL)**	Workers and pedestrians	Before Measure: **High** After Measure: **Med**
Noise exposure	Hearing loss, communication challenges, distraction	Enables the use of high-powered tools and equipment essential for construction.	Conduct noise level assessments and install engineering controls like silencers or barriers. Provide PPE such as earplugs or earmuffs and schedule regular hearing tests for exposed workers. **(ALL)**	Workers	Before Measure: **High** After Measure: **Med**
Vehicle movements	Collisions, pedestrian injuries, material damage	Facilitates efficient material transport across large sites.	Designate separate zones for vehicles and pedestrians, implement speed limits, and train operators on safe vehicle usage. Use spotters and signage to manage traffic flow. **(ALL)**	Workers and pedestrians	Before Measure: **High** After Measure: **Med**
Vibration exposure	Hand-arm vibration syndrome (HAVS), fatigue	Enables efficient use of tools like jackhammers and compactors.	Use low-vibration tools and implement job rotation to limit exposure time. Provide anti-vibration gloves and conduct regular health surveillance for affected workers. **(ALL)**	Workers	Before Measure: **High** After Measure: **Med**
Confined spaces	Asphyxiation, entrapment, toxic exposure	Enables construction in critical but restricted areas such as pipelines or basements.	Conduct detailed risk assessments before entry, ensure proper ventilation, provide workers with appropriate training and emergency procedures, and use gas detectors to monitor air quality. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Crowded workspaces	Collision injuries, reduced productivity, stress	Maximizes resource use by accommodating multiple tasks in limited spaces.	Plan work schedules to minimize overcrowding, use barriers to separate work zones, and ensure clear communication among teams. Enforce organized equipment storage. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Dust and airborne particles	Respiratory issues, eye irritation, reduced visibility	Supports activities like cutting and grinding, essential for material preparation.	Implement dust suppression methods like water sprays, use respiratory PPE, and ensure proper ventilation. Conduct air quality monitoring to assess particulate levels. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Electrical installations	Electrocution, short circuits, fire hazards	Ensures continuous power supply necessary for tools and site operations.	Conduct routine inspections of electrical systems. Ensure only qualified electricians perform installations or repairs, and implement lockout/tagout procedures during maintenance or servicing. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Excavation and trenching	Cave-ins, falling debris, flooding	Enables safe construction of foundations, pipelines, and underground utilities.	Slope or shore trench walls, use protective systems like trench boxes, conduct daily inspections, and ensure safe access and egress. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Exposure to asbestos	Respiratory issues, long-term health risks, contamination	Allows safe demolition or renovation of older structures containing asbestos.	Identify and assess asbestos-containing materials (ACMs) before work begins. Use licensed professionals for safe removal, provide PPE, and monitor air quality during abatement. **(ALL)**	Workers and surrounding areas	Before Measure: **High** After Measure: **Low**
Falling objects	Head injuries, material damage, delays	Allows vertical construction to proceed while protecting workers below.	Install toe boards, debris nets, and overhead protective systems. Secure tools and materials when working at height, and require workers to wear hard hats at all times. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Fatigue	Reduced focus, increased error rates, health issues	Enables extended project timelines while maintaining worker well-being.	Enforce work/rest schedules, provide access to hydration and shaded rest areas, and train workers to recognize fatigue symptoms. Monitor workloads and redistribute tasks if necessary. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Fire hazards	Burns, structural damage, project delays	Supports the use of high-energy processes like welding and cutting.	Install fire detection and suppression systems, properly store flammable materials, conduct fire drills and training, and maintain clear evacuation routes. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Hazardous substances	Toxic exposure, chemical burns, inhalation risks	Allows the use of essential chemicals like adhesives and paints to achieve specific construction outcomes.	Maintain a detailed inventory of hazardous materials, ensure proper labeling and storage, provide PPE, and train workers on safe handling. Develop and communicate spill response protocols. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
High-pressure systems	Explosions, equipment damage, operator injury	Enables specialized operations like cleaning and testing.	Train workers on proper operation of high-pressure equipment, conduct routine maintenance, and install pressure relief valves. Use PPE to protect against accidental releases. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Lifting equipment	Equipment failure, overloading, operator error	Enables efficient handling of heavy materials beyond manual capabilities.	Regularly inspect lifting equipment for defects, ensure operators are trained and certified, and provide clear weight capacity guidelines. Use spotters to assist in lifting operations. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Manual handling	Strains, sprains, back injuries	Facilitates flexible material handling without over-reliance on machinery.	Train workers in proper lifting techniques, provide mechanical aids like hoists and trolleys, and redesign tasks to minimize manual lifting. Encourage team lifting for heavier loads. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**
Material storage and handling	Collapsing stacks, tripping hazards, improper labeling	Facilitates organized storage and accessibility, keeping the site functional.	Use designated storage areas for materials, ensure proper stacking to prevent collapses, and label hazardous materials clearly. Regularly inspect storage areas and train workers on safe handling procedures. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Overhead power lines	Electrocution, equipment damage, fire risk	Enables construction in areas near power lines without disruption.	Establish safe working distances from power lines, clearly mark and communicate danger zones, and use insulated equipment. Train workers on risks and protocols when working near electrical lines. **(ALL)**	Workers and equipment operators	Before Measure: **High** After Measure: **Low**
Proximity to hazardous energy sources	Electrical shocks, burns, energy release incidents	Ensures work near essential energy systems without halting operations.	Lockout/tagout all energy sources during maintenance, provide clear signage, and train workers on identifying and isolating energy risks. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Scaffolding	Falls, structural collapses, improper assembly	Provides stable access to work areas at height, improving efficiency.	Design scaffolds following industry standards, ensure they are erected and inspected by qualified personnel, and secure platforms with guardrails and toe boards. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Sharp objects	Cuts, puncture wounds, improper disposal	Allows handling of specialized tools and materials for precision tasks.	Ensure workers wear cut-resistant gloves and inspect tools regularly. Provide proper disposal containers for sharp waste like nails or blades and train workers on handling sharp objects safely. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**
Slips, trips, and falls	Injuries, fractures, delays	Maintains efficient movement of personnel, crucial for meeting tight deadlines.	Keep walkways free of obstructions, use non-slip mats in high-risk areas, ensure adequate drainage, and enforce daily housekeeping routines. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**
Structural instability	Collapses, worker injury, material damage	Allows renovation or demolition of older structures without full deconstruction.	Conduct structural assessments before work begins, install temporary supports, and monitor structures during construction. Train workers on recognizing instability signs. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Weather conditions	Hypothermia, heatstroke, slips on wet surfaces	Allows continuity of work despite environmental challenges.	Monitor weather forecasts, provide appropriate PPE for adverse conditions, establish protocols for working during extreme weather, and ensure pathways are free of ice or water. **(ALL)**	Workers	Before Measure: **Med** After Measure: **Low**
Welding and hot works	Burns, fire risks, toxic fumes	Enables fabrication and repairs on-site, saving transportation costs.	Establish designated hot work zones, provide fire blankets and extinguishers, and ensure proper ventilation. Train workers on fire safety and hot work protocols. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Working at height	Falls, equipment instability, improper use of safety systems	Enables access to elevated areas, crucial for completing structural work.	Implement guardrails, safety nets, and personal fall arrest systems. Train workers on safe practices for working at heights and regularly inspect equipment and surfaces for stability and integrity. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Working in proximity to water	Drowning, slips, equipment damage	Expands project scope to include waterfront or submerged constructions.	Equip workers with flotation devices, provide training on water safety, and ensure rescue equipment is accessible. Conduct risk assessments for work near rivers or bodies of water. **(ALL)**	Workers	Before Measure: **High** After Measure: **Low**
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. **(ALL)**	All	**N/A**

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Extra notes & activity evaluation:

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Completed by	Reviewed/Approved by	Risk Assessment Date	Review Required Date