TO: SIR HASEEM

HEALTH SAFETY AND ENVIRONMENT

PROJECT REPORT

GROUP MEMBERS
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BEME-F-24-B

Name	Health Safety And Environment	End -of-course date	6-Jan-2026	Instructor	Sir Haseem

Risk assessment form

Assessor's name	Muhammad Usman Khan & Touseef Ahmed Khan	Date	16/12/2025

Description of process, activity or task to be risk assessed	
Describe the location where the activities are taking place	Air University Main (E-9) Campus perimeter and adjacent areas near the ongoing **Shaheen Chowk Underpass Construction project**. The site includes pedestrian walkways, temporary vehicle routes marked with "No Entry" and "One way only" signs, and areas near institutional buildings (Bahria University/Air University).
Describe the activities being performed	▪ Pedestrian movement (Walking) of students and faculty across campus. ▪ Construction-related vehicle traffic and material transport near/through campus borders. ▪ Site inspection and surveying activities (may indicate a surveying point or zone). ▪ General campus operations amidst external construction.
Describe the equipment and/or substances being used	▪ Construction equipment (excavators, trucks, compactors). ▪ Traffic control signs (No Entry, One way only). ▪ Surveying tools (likely refers to a theodolite or total station). ▪ Personal protective equipment (PPE's) for workers.
Describe the people involved in these activities (and others who might be affected)	▪ **Locals:** Residents living near the campus and construction site. ▪ **Students & University Faculty:** Moving between classes and facilities. ▪ **Construction Workers:** Engaged in the underpass project ▪ **Visitors & Drivers:** Using roads affected by altered traffic patterns.

Location Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Open and poorly protected excavations near pedestrian and traffic routes may lead to falls into trenches, slips, trips, or vehicles entering hazardous zones.	Students, university faculty	Warning signboards (“Deep Excavation Ahead”, “No Entry”)	4	4	16	Continuous and rigid barricading around all excavations, Night-time reflective barriers and lighting	25 Dec 2025	2	4	8
	local residents, construction workers, drivers, and motorcyclists.	Partial barricading using metal sheets and caution tape, Traffic diversion signage	4	4	16	Dedicated pedestrian walkways away from excavation edges, Security personnel to restrict unauthorized access	25 Dec 2025	2	4	8

Activities Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Simultaneous movement of construction vehicles and public traffic may cause collisions, run-over incidents, or pedestrian accidents.	Students, university faculty	Limited warning boards	4	3	12	Deployment of trained traffic marshals, Separate entry and exit routes for construction vehicles	25 Dec 2025	2	4	8
	local residents, workers, drivers, and motorcyclists.	One-way traffic signage, Presence of construction staff near machinery	4	3	12	Speed limit enforcement near campus, Temporary pedestrian crossings with signage	25 Dec 2025	2	3	6

Equipment And Substance Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Use of heavy excavation machinery and exposure to dust and debris may result in struck-by incidents, respiratory issues, or crushing injuries.	Construction workers, nearby pedestrians	Machine operators present, Limited PPE use by workers	3	4	12	Mandatory PPE (helmets, masks, high-visibility vests), Dust suppression using water spraying, Equipment maintenance and operator certification	25 Dec 2025	2	3	6
	Students, university faculty	Some barricading around machinery only while students are coming or going to home.	2	4	8	Safe exclusion zones around machinery	25 Dec 2025	2	3	6

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Assessor's name	Muhammad Usman Khan & Touseed Ahmed Khan	Date	16/12/2025

Description of process, activity or task to be risk assessed	
Describe the location where the activities are taking place	The activities are taking place at **I-8 Markaz Steel Factory**, an industrial facility located within a commercial and residential area. The site includes production floors, material storage areas, machinery zones, and access points used by workers and nearby local residents.
Describe the activities being performed	▪ Cutting, bending, and shaping of steel bars and sheets ▪ Welding and grinding operations ▪ Loading and unloading of steel materials ▪ Internal movement of raw materials and finished products ▪ Routine maintenance and housekeeping activities
Describe the equipment and/or substances being used	▪ Steel cutting and bending machines ▪ Welding machines and grinders ▪ Forklifts and manual handling tools ▪ Steel bars, sheets, and scrap material ▪ Electrical power supply, welding fumes, sparks, and noise
Describe the people involved in these activities (and others who might be affected)	▪ Factory workers and machine operators ▪ Supervisors and maintenance staff ▪ Local residents and passersby near the factory premises

Location Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Poor housekeeping, uneven floors, and scattered steel scraps may cause slips, trips, or falls within the factory premises.	Workers	Basic housekeeping practices, Limited designated walkways	3	3	9	Regular removal of scrap material, non-slip flooring where possible	Within one week	2	3	6
	local visitors entering the factory area.	Some warning signs	3	3	9	Improved safety signage, clearly marked pedestrian walkways	Within one week	2	3	6

Activities Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Manual handling of heavy steel materials may lead to musculoskeletal injuries, strains, or crush injuries.	Factory workers.	Some use of manual handling techniques, Limited mechanical aids	4	3	12	Manual handling training for workers, Increased use of trolleys, forklifts, and lifting aids, Team lifting procedures for heavy loads	Within one week	2	3	6

Equipment and Substance Hazards:

Description of hazard and hazardous event	Who might be harmed	What risk controls are currently in place	Current risk rating			Are Further Controls Needed	Data to be completed by	Residual Risk Rating		
			L	C	R			L	C	R
Operation of cutting, welding, and grinding equipment may cause burns, eye injuries, electric shock, or exposure to fumes.	Workers	Some personal protective equipment (gloves, masks) Trained machine operators	3	4	12	Mandatory PPE (helmets, goggles, face shields, gloves), Routine equipment inspection and electrical safety checks	Within one week	2	3	6
	nearby locals exposed to fumes or sparks.	Wear Face Masks Use another way for passing the factory	3	4	12	Proper ventilation and fume extraction systems	Within one week	2	3	6