

RISK MANAGEMENT PLAN

THE PROJECT OR SUBJECT OF THE

EVALUATION: XTX Kajaani

DATE: 02/05/2024

AUTHOR: Sundström Ab Oy

PARTICIPANTS:

Contractor: Sundström Ab Oy

I class	No measures needed
II class	To be monitored
III class	Measures to be proposed
IV class	Measures to be taken
V class	Requires immediate action

No	Description of the risk/problem/disturbance	Direct causes and contributing factors	Impact of the consequences	Probability	Severity	Risk (Class)	Risk management measures	Person responsible	Date
OPERATING ENVIRONMENT									
						#NAME?			
1	Seasonal and weather variations	Work is carried out at different times of the day and in different weather conditions (rain, darkness, poor lighting, etc.)	Personal injuries, property damage	2	3	Minor	Anti-slippery conditions when necessary Ensuring adequate lighting (machinery, headlamp, lighting tower)	Juha Korpela	02/05/2024
2	Difficult terrain conditions pose challenges to the execution of the works	Rains and floods, height differences in the terrain	Personal injuries, property damage	2	3	Minor	Moving along agreed routes (orientation, site area plan) Provision of draining equipment on site to remove water Planning of alternative routes	Juha Korpela	02/05/2024
3	Wires, cables and tubes/pipes. Cable breakage and damage.	Inadequate wire and cable surveys before excavation work	Personal injuries, property damage	2	3	Minor	Cable screens Marking cables on the ground Conducting cable digging using the so-called "shipman's method" (using a shovel to uncover as the digging progresses.	Juha Korpela	02/05/2024
4	Limited working space, confined space, narrowness	Cramped spaces for machinery, lack of separation of working areas from public traffic	Personal injuries, property damage	3	3	Moderate	Coordination Design and implementation of agreed machine movements Design and implementation of machine workstations Work phase planning and preparation of TLT plans	Juha Korpela	02/05/2024
5	Working close to machinery	Equipment and pedestrians working simultaneously on the site. Others are not visible.	Personal injuries	3	3	Moderate	Orientation and guidance, coordination of work Consideration of the machine's protective covers at the work stages and work stations. TLT plans Design consultation for work phase planning	Juha Korpela	02/05/2024
6	Vandalism, outside persons in the work area	Access by unauthorised persons to the site storage area	Material damage, property damage	2	3	Minor	Locking, security Constant surveillance of the site Demarcation of access routes / protection with fences and signs around the site Guiding outsiders away from the site	Juha Korpela	02/05/2024
7	There are unqualified persons on the staff of employees and subcontractors	Cause risk to other operators through incompetence, lack of or invalid qualifications.	Personal injuries, property damage	2	3	Moderate	Checking qualifications and ensuring competences Introduction and verification of qualifications=>to be added to the access list On-site and on-the-job familiarisation TLT plans for work phases	Juha Korpela	02/05/2024
8	Confusion with other operators in the area (management, maintenance and other contractors, etc.)	Lack of coordination and information with other actors	Personal injuries, property damage	3	2	Moderate	Coordination meetings Participate in the coordination meetings organised by the Contracting Authority Informing machinery suppliers and communicating with other main contractors	Juha Korpela	02/05/2024

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9	An obstacle to construction or an unexpected structural occurrence	Shortcomings in planning and implementation or incorrect working techniques	Project delays	2	3	Minor	Review of plans and assessment of implementation before the work is carried out Preparing for an alternative plan to carry out the work Anticipate changes to the plan through changes to materials and machinery	Juha Korpela	02/05/2024
Traffic						#NAME?			
10	Coordination between site traffic and public traffic	Work-related movement among public traffic, the construction site causes danger and inconvenience to public traffic. Shortcomings in traffic management.	Road traffic accident	3	3	Moderate	Preparation of a traffic management plan/site plan Setting traffic signs Assessment of the safety of access routes and measures to be taken accordingly Use and control of agreed routes Preparing for route modifications and repairs where necessary	Juha Korpela	02/05/2024
11	Vehicle falls into an excavation next to a road	Inadequate traffic management and excavation protection (consider protection classes)	Personal injuries, property damage	2	3	Minor	Protection of excavations and access roads Preparation of a traffic management plan/worksitesubplan Use and control of agreed routes Preparing for route modifications and repairs where necessary	Juha Korpela	02/05/2024
12	Light traffic in the immediate vicinity	Light traffic in the site area is not clearly visible from the cabs of the machinery	Personal injuries	2	3	Minor	Routing of external walkers Correct selection of machine workstations Continuous monitoring of site performance	Juha Korpela	02/05/2024
Dangerous works						#NAME?			
13	Fences, pinching hazard, Fences falling	Fences falling or pinching hazards	Personal injuries	3	3	Moderate	General and work introductions Drawing up a TLT plan Ensuring the stability of the workstation platform Continuous monitoring Protections	Juha Korpela	02/05/2024
14	Temporary road, machines	Inadequate work phase planning, inadequate working time preparation	Personal injuries,	3	3	Minor	General and work introductions Drawing up a TLT plan Ensuring the stability of the workstation platform Continuous monitoring Protections	Juha Korpela	02/05/2024
15	Excavation work; trench collapse (e.g. material transfer points)	Shortcomings in the design and implementation of the works (incomplete or missing excavation and support plans)	Personal injuries	3	3	Minor	General and work introductions Drawing up a TLT plan Ensuring the stability of the workstation platform Continuous monitoring Construction of retaining walls if necessary Protections	Juha Korpela	02/05/2024
16	Excavation work; cables are damaged during the work	Inadequate cable investigations	Personal injuries	2	3	Minor	Cable screens Marking cables on the ground Conducting cable digging using the so-called "boatman's method" (using a shovel to uncover as the digging progresses).	Juha Korpela	02/05/2024
17	Excavation work; machine tipping over	Inadequate work phase planning, inadequate working time preparation	Property damage	2	4	Moderate	General and work introductions Drawing up a TLT plan Ensuring the stability of the workstation platform Continuous monitoring Protections	Juha Korpela	02/05/2024

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18	Work involving a risk of electrical accidents: faulty electrical machinery and equipment	Failure to carry out maintenance and inspections	Personal injuries	2	3	Moderate	Carry out machine inspections before starting work Daily checks on the functionality of machinery and equipment Continuous monitoring	Juha Korpela	02/05/2024
Health						#NAME?			
19	Air pollutants (microbes, moulds, fumes, viruses, small animal pollutants)	Inadequate introduction. Inadequate personal protective equipment. No attention to safety clearances and hand hygiene.	Health risks	2	3	Moderate	Work introduction Use of protective equipment	Juha Korpela	02/05/2024
20	Dusting, dust sources (gravel areas and roads)	Inadequate introduction. Poor dust control. Inadequate personal protective equipment.	Health risks	3	3	Moderate	Dust control plan Environmental assessment Introduction Use of protective equipment	Juha Korpela	02/05/2024
21	Flammable and combustible substances, explosive hazards, fire, flammable gases	Inadequate introduction. Inadequate personal protective equipment.	Health risks	2	3	Moderate	Environmental assessment Introduction Use of protective equipment Extinguishing equipment Correct and appropriate use and storage	Juha Korpela	02/05/2024
22	Substances, materials and structures hazardous to health (e.g. contaminated soil, quartz dust)	Inadequate introduction. Inadequate personal protective equipment.	Health risks	2	4	Moderate	Environmental assessment Introduction Use of protective equipment Irrigation or equivalent prevention of dust	Juha Korpela	02/05/2024
23	Heat, cold, draught	Inadequate introduction. Inadequate personal protective equipment and clothing	Health risks	2	3	Moderate	Environmental assessment Introduction Appropriate clothing and equipment according to the weather	Juha Korpela	02/05/2024
24	Working when tired, working outside, long shifts	Poor work and shift planning.	Health risks	3	3	Moderate	Resource planning Scheduling of work phases	Juha Korpela	02/05/2024
25	Fumes and vapours released from paints and solvents and dust from cutters	Inadequate respiratory protection	Health risks	2	4	#REF!	Personal protective equipment Introduction	Juha Korpela	02/05/2024
26	Noise	Inadequate noise protection	Hearing damage	2	3	Moderate	Personal protective equipment Introduction	Juha Korpela	02/05/2024
Other operations						#NAME?			