



Fire safety regulations *University Duisburg-Essen* *Campus Duisburg*

(Updated version: 12/2019)

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

Fire safety regulations for Campus Duisburg (acc. to DIN 14096 - Part B)

(Updated version: 12/2019)

Contents

1. Introduction	3
2. Fire safety regulations Part A	4
3. Fire prevention	5
4. Spread of fire and smoke	7
5. Escape routes	8
6. Fire alarm and extinguishing equipment	9
7. Behavior in case of fire	12

Appendix

A: First aid	16
B: Emergency information	17
C: List of recovery rooms	18
D: Deactivation of smoke detection systems	19
E: Permission to carry out hot work	20
F-N: Site maps and assembly points	21

Point of contact

The main responsibility of the Staff Unit for Occupational Safety and Environmental Protection is the comprehensive implementation of the legal guidelines and requirements for occupational safety and environmental protection at the UDE. This includes helping those responsible at the UDE to fulfill their obligations in this area.

Universität Duisburg-Essen
Stabsstelle Arbeitssicherheit & Umweltschutz
Universitätsstrasse 2
45141 Essen


https://www.uni-due.de/verwaltung/organisation/arbeitssicherheit_umweltschutz.php

It includes the fields of waste disposal and preventive fire protection.

Fire safety delegate
Phone: (0201)183-4488 or
Phone: (0203) 379-2200

1. Introduction

To avoid hazards to life and health by fire, the following fire safety regulations are enacted at the University Duisburg-Essen



Rector magnificus



Chancellor

1.1 Area of application

The fire safety regulations are valid in all buildings, facilities, divisions and other sites at the Campus Duisburg of the University Duisburg-Essen.

The fire safety regulations contain rules for preventive and technical fire protection, instructions for behavior in case of fire and other hazardous instances. Furthermore they clarify the operation and handling of available fire protective equipment. Every employee of the UDE is obligated to be familiar with the fire safety regulations.

The fire safety regulations are online:

www.uni-due.de/verwaltung/arbeitssicherheit/brandschutzordnung.php

1.2 Duties for employees

In accordance with the German laws § 4 der berufsgenossenschaftlichen regulation DGUV V1 »Principles of prevention« and §§ 10 und 12 Arbeitsschutzgesetz (Act on the Implementation of Measures of Occupational Safety and Health Improvements in the Safety and Health Protection of Workers at Work), all employees are committed to take part in periodic fire protection briefings and practical fire extinguishing and evacuation training exercises.

The fire safety regulations must be complied with. They are part of the annual instruction given to employees by their supervisors.

The fire safety regulations must be made known to all outside companies working at the UDE.

1.3 Coming into effect

The fire safety regulations come into effect on 1.December 2019 and remain valid until cancelled.

Fire Prevention



no open flames; fires, open ignition sources and smoking prohibited

Conduct during fires

Remain calm
Report the fire



Emergency: 112

Get to
safety

Warn at-risk persons /
trigger building alarm

Help people in need

Close doors



Follow marked escape
routes

Do not use elevator



Convene at assembly
point

Follow instructions

Attempt to
extinguish
the fire



Use fire extinguishers



Use fire hose

3. Fire prevention

3.1 Open fire

Open fire is prohibited in every area of the University Duisburg-Essen except in designated spaces.

3.2 Smoking ban

The ban on smoking inside the buildings of the UDE must be strictly adhered to. Cigarette butts and remnants of tobacco must be disposed of in designated ash containers in front of the buildings. Disposal of flammable material and residual waste in the ash containers is strictly forbidden.

3.3 Waste

It is forbidden to deposit smouldering material in waste paper baskets or trash-cans.

It is forbidden to pour flammable liquids into a sink, drain or wastepipe. Liquid waste must be collected in an appropriate container/vessel and handed to the official waste disposal site.

Cloths used with oil, paints, or similar substances tend to inflame. They must be stored/collected in tightly closed or fireproof metal containers until disposal.

3.4 Flammable material

Flammable solid material (fire classification A)

Highly flammable materials (paper or similar) must be stored only in low amounts in working areas. They must be stored appropriately, i.e. in cupboards or shelves.

Flammable liquids (fire classification B)

Highly flammable liquids are only allowed in workspaces like workshops and laboratories. They must be kept ready for use only in small amounts. They must be stored in safety cabinets or specific storage rooms.

For ordinary use by hand of highly flammable liquids (e.g. alcohol or solutions containing

alcohol, methylated spirit, acetone) in the workplace only vessels with the following characteristics are allowed:

- The vessel must not be made out of thin-walled glass.
- The vessel must be closable.
- Self-sealing metal containers are particularly suitable.

All containers/vessels used to collect or store flammable liquids must be labeled according to the German regulations on hazardous substances (Hazardous Substances Ordinance).

Flammable gases and gas cylinders (fire classification C)

The use of flammable gases must be in compliance with the guideline DGUV Information 213-851 »Working Safely in Laboratories«.

Fragmented or porous gas hoses must be exchanged immediately.

Pressurized gas cylinders must be protected from falling.

Only pressurized gas cylinders of the required size and amount are allowed to be kept in working spaces. In principle, they are only allowed to be kept in working spaces for the period of use, unless they are stored in specific safety cabinets.

After use the gas cylinders must be stored inside the local gas cylinder storage facility. As a rule, empty gas cylinders must either be returned to the gas provider, or disposed of in the appropriate way.

3.5 Fire load density

The fire load density, i.e. the total amount of flammable material in a working space, must be kept to a minimum.

3.6 Heating equipment

It is strictly forbidden to store or deposit flammable material on heating equipment or hot surfaces.

3.7 Hot-work

Hot-work with a naked flame must be done in appropriate areas/rooms. Only instructed and skilled personnel is allowed to perform hot-work outside these areas/rooms if required. A permit (see appendix E) regulates the safety requirements for hot-work. This permit must be signed by all involved persons respectively Coordinator before work begins.

3.8 Electrical devices

In general, only devices with state of the art technology are allowed to be used. Mobile electrical equipment must be tested regularly according to *DGUV Vorschrift 3* and the examination must be documented. This applies to private devices at work too (e.g. electric kettle, coffee machine, microwave etc.).

Defects and (hidden) faults in electrical installations must be reported immediately to the supervisor and in-house technicians.

Electrical devices like electric kettles must be placed on non-flammable surfaces. Nearby wooden material must be protected against radiated heat.

All devices must be switched off outside of working hours unless they are needed for ongoing operations.

3.9 Faults in fire protection equipment

Identified faults in fire protection equipment, e.g. defect fire doors, damaged fire-extinguishers, missing seals on fire-extinguishers or missing designations must be immediately reported to the fire-wardens or the responsible department of the UDE (Staff Unit for Occupational Safety and Environmental Protection, Department of Building Management, Technical Building Management).

3.10 Fire protection assistant

Fire-wardens are appointed for individual sections or floors. In coordination with their supervisors, they carry out annually the fire-safety briefing of the employees.

The buildings are visually inspected with a view to identifying technical fire protection deficits. Identified deficiencies must be reported to the responsible departments.

In case of fire, the fire-wardens provide support in evacuation and in fighting emerging fires.

4. Spread of fire and smoke

4.1 Fire doors

All corridor doors are smoke control doors. To prevent fire they must be closed immediately after opening/using, unless they are automatically kept open (controlled by electronic smoke detectors). Fire doors and smoke control doors must be able to close mechanically correctly at any time.

Doors connecting working rooms/areas and floors normally have an independent closing device. These doors have a fire-protection function and must be kept closed at all times.

4.2 Automatic opening vents

For discharging infiltrated fire smoke, the staircases are equipped with an automatic opening vents (AOV). The AOVs are activated by a pushbutton alarm indicator located inside the staircases or by opening the CO₂-valves. These are located at ground level in the open areas between the staircases and labeled as »Rauchabzug« (SMOKE VENT).

5. Escape routes

5.1 Escape routes

All employees have to inform themselves about the escape routes in their working area. The valid escape routes can be found on plans displayed in every building.

The displayed plans show the path of an escape route as well as the location of the pushbutton alarms and fire protection equipment. It is not allowed to cover or mask the displayed plans.

It is not allowed to lock doors in the path of escape routes during working hours. It must be possible to open them without outside help at all times.

5.2 Keep passages clear

Evacuation and escape routes must be kept entirely clear all the time. The placing and parking of fire load, particularly electrical devices and flammable items, in evacuation and escape routes is forbidden.

Steel lockers and non-flammable seating furniture must not restrict the required flight width in the corridors and are therefore only allowed in a limited number. The positioning of these items needs to be arranged with the Staff Unit for Occupational Safety and Environmental Protection.

Entrances, exits, corridors, staircases and traffic routes that may be used by the fire brigade must also be kept clear.

It is not allowed to park or place any vehicles on the areas marked as emergency routes (incl. the parking garage) within the area of the UDE (acc. § 5 Abs. 6 LBO NW).

6. Fire alarms and fire extinguishing devices

All employees must inform themselves about the fire alarms and fire extinguishing devices in their location. These are illustrated on the plans displayed in all buildings.

It is not allowed to cover or block up the fire protection equipment (e.g. hydrants, fire extinguishers, fire blankets, fire alarms, safety signs).

6.1 Fire alarms

Most of the buildings of the UDE are equipped with following alarms:

Automatic fire alarms

Automatic fire alarms are activated by smoke and heat. The fire brigade is alerted automatically and receives information on the location of the alarm.

Pushbutton alarms

Activation via pushing the alarm button. The fire brigade is alerted and receives information on the location of the alarm.

Phone call 112

In case of an emergency, the fire brigade or ambulance service can be alerted by calling 112 from every phone (landline, wireless, mobile). The phones in the stairwells may also be used.

6.2 Extinguishing devices

Extinguishing devices as follows are provided:

Fire extinguishers:

Fire extinguishers are located in the corridors and in specific rooms/areas (e.g. laboratories, lecture-halls, workshops). There are different types of fire extinguisher which vary according to the type of fire damage expected. Water is not always a suitable extinguishing agent.

As examples the following types of fire extinguisher can be found at the UDE:



Powder extinguisher

Qualified for fire classification A, B, C, (D)

- Remove the yellow clip and grab the spray pistol.
- Hit the button.
- Start the firefighting.



Carbon dioxide extinguisher

Qualified for fire classification B

- Pull out the locking pin.
- Push the lever on the gate valve.
- Start the firefighting.



Foam extinguisher

Qualified for fire classification A, B

- Remove safety strap and grab the spray pistol.
- Hit the button.
- Start the firefighting.



Grease/fat fire extinguisher

Qualified for fire classification A, B, F

- Pull out the locking pin.
- Push the lever on the gate valve.
- Start the firefighting using the spray pistol.

Extinguisher chutes

Extinguisher chutes are located occasionally in laboratories and workshops.



Extinguisher chute

Qualified for fire classification D (metal fires)

- Cover the fire with sand by turning the chute upside down

Fire hose reel

Fire hose reel are normally located in the areas between staircases and corridors.



Fire hose reel

- Roll off dimensionally stable plastic fire hose from reel as required. (Textile fire hoses need to be rolled off completely.)
- Open main valve,
- Start firefighting using the hose nozzle.

Emergency showers

Emergency showers are located above the entrance doors within laboratories. Emergency showers are suitable for extinguishing persons on fire.

Fire blankets

Only be used where fire extinguishers are not suitable. This concerns only some laboratories and workshops.

All fire protection equipment and alarms are tested at regular intervals to keep them operational all the time.

7. Behavior in case of fire

7.1 General advice

- If a fire is detected, immediately activate the fire alarm!
- **Keep calm! Hasty action can cause misconduct and panic.**
- Find out if there is human life in danger.
- **Saving lives takes priority over firefighting!**

7.2 Report fire

Activating alarm

Report fire via pushbutton alarm or by calling 112.

Using the pushbutton alarm has priority. This way is safer and quicker and the fire brigade is automatically informed of the exact location of the alarm. If you use the pushbutton alarm, inform the fire brigade about it outside the danger area.

Additionally call 112 and provide accurate information about the event causing damage.

When calling 112 provide following information:

Where is the fire?	<i>Building, Street, Street number, Floor, Corridor, Room, Access.</i>
What is burning?	<i>Type and extent of fire?</i>
How many persons are in danger?	
Who is calling?	Name, Phone-number
Wait for questions!	The fire brigade should end the emergency call.

7.3 Pay attention to alarm signals and instructions

Alarm signals

Most of the buildings of the UDE-Campus Duisburg have an internal fire alarm. Either an audible alarm signal or a loudspeaker announcement.

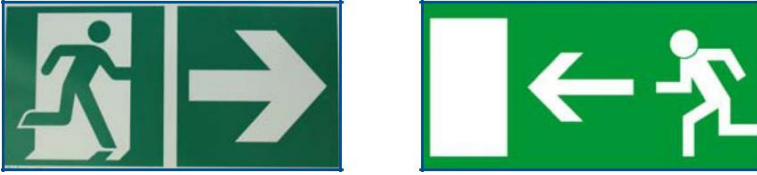
Follow instructions

If an alarm starts, respect the following rules:

- Keep calm
- Stop talking on the phone
- Switch off hazardous devices immediately (emergency shut-off)
- Follow the instructions of the fire-warden
- Close doors and windows
- Use the escape routes to leave the building
- Pay attention to public announcements and follow instructions.

7.4 Get into safety

Close fire doors and smoke control doors immediately.
Leave the building via staircases. Do not use elevators.



Follow the escape routes. Avoid smoke-filled areas.
Pass through smoke-filled areas preferably crouching or crawling: Respirable air and clearer vision is provided only at ground level.

If exits cannot be reached because of smoke:

- Try to reach a more distant room (room facing the street)
- Close doors
- Attract attention at the window

Do not use elevators, due to danger of suffocation!

Take with you handicapped, injured persons or persons in danger.

Persons who are not capable of rescuing themselves should try to reach the next safe area, or attract attention. (Normally it is possible to move from one part of a building to another via staircases/towers or the next stair tower).

Move to the assembly point.



Assembly point for this building:

(The assembly points are shown in the map of appendix „F“.)

Follow instructions

In case of fire follow the instructions given by the fire protection assistant and/or security personnel.
Once the fire brigade has arrived follow their instructions.

7.5 Try to extinguish the fire

- Saving human lives has priority over firefighting!
- Safeguard yourself when firefighting!
- Attempt firefighting only when the fire is starting!

Why firefighting?

The objective of firefighting is to eliminate a fire as soon as it starts using the appropriate equipment. If the initial firefighting remains unsuccessful, close the doors and try to escape.

Firefighting: Which equipment?

First: Try firefighting with the fire extinguisher.

Second: Use the ascending main (wall hydrant) for firefighting.

The appropriate application (fire classification) is identified on the given equipment.

Try to remove easily flammable material in proximity of the flames if possible. Try to quell the fire by throwing blankets or similar over the flames of inflammable objects.

How to fight fire effectively

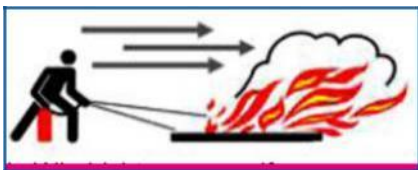
For effective firefighting the correct usage of the appropriate equipment is essential (see following presentation).

Rescuing a burning person:

You can use any fire extinguisher type to firefighting. Please note the safety measure when rescue a burning person. Water that is not drinkable can also be used to rescue a burning person.

- Do not let a burning person run away (try to push them over).
- Use the emergency showers to extinguish the flames
- If not available, try to cover the person with a blanket or coat. Turn them on the ground from one side to another to extinguish the flames, if needed.

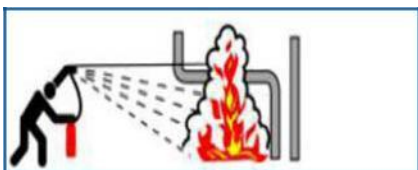
Appropriate usage of fire extinguishers



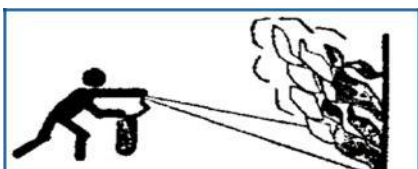
Fight fire in same direction as the wind blows.



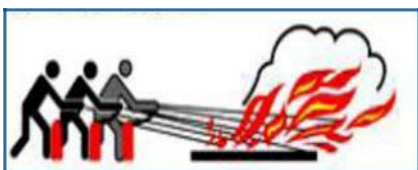
Start fighting surface fires from the edge.



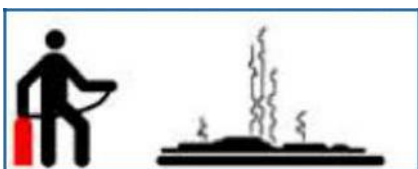
Fight dripping or flowing fires from top to bottom.



Fight burning walls from bottom to top.



Use more than one fire extinguisher simultaneously, not one-by-one.



Watch out for smoldering!



Do not put back fire extinguishers after use. They need to be refilled.

Appendix A: First aid

Common injuries

If you find an unconscious person, try to help them regain consciousness by speaking to them loudly, touching or lightly shaking them. When they regain consciousness, provide appropriate help e.g.: stop bleeding; apply pressure bandages if possible/needed, protect the lesion from infection, use emergency bandages – if possible sterile ones.

Fetch help if person stays unconsciousness. Check breathing, clear respiratory tract, and lean back the head of the person, lift the chin.



If there is no breathing, make an emergency call. Start cardiopulmonary resuscitation. Place the heel of your hand on the centre of the person's chest, then place the other hand on top and press down by 4-5 cm at a steady rate of 100 compressions per minute. After every 30 chest compressions, give two mouth to mouth rescue breaths each lasting one second.

If normal respiration starts, put the person into recovery position set up emergency call, observe consciousness and breathing.

If a physician's presence is required, then another person should be present.

First-aid material must be accessible at any time. It must be stored in appropriate containers and in sufficient quantity. It must be replenished and replaced in a timely manner.

Any first-aid activity must be documented.

Fire injuries (severe burns)

Do not rip of or remove burned clothing. Small local burns or scaldings of first to second degree must be held under cold running water (about 20 °C) until pain stops. Cover the burn with a sterile bandage if possible.

Third degree burns must be covered with sterile bandages suitable for this purpose.

Call Emergency 112 or, in the case of light injuries, take the injured person to the company physician.

Appendix B: Information in case of emergency

EMERGENCY- INFORMATION - Campus Duisburg		(Stand: October 2019)
In case of emergency call (please complete):		
Supervisor	Name: ☎	Room:
First-aidler	Name: ☎	Room:
Safety officer	Name: ☎	Room:
Fire protection assistant	Name: ☎	Room:
other service number (service is not continuously available):		
Staff unit for occupational & environment protection	Supervision ☎ 0201 / 183-4499 Laboratory safety ☎ 0201 / 183-3170 Fire prevention ☎ 0201 / 183-4488 Accident notification ☎ 0203 / 379-2200 ☎ 0201 / 183-3628	
Occupational health & safety specialist	Essen ☎ 0201 / 183-6677 Duisburg ☎ 0201 / 183-3166 ☎ 0203 / 379-3173 ☎ 0203 / 379-2614	
Technical disturbance	Control Room ☎ 0203 / 379-2211 Mo - Fr 06:00 am - 10:00 pm Sa 07:30 am - 01:00 pm	
* quote @ treatment: Accident insurance for students and staff Unfallkasse NRW Regionaldirektion Rheinland 40625 Düsseldorf		
Fire Dept. / Ambulance	☎ 112 (every phone)	
Hospitals*	Accident Hospital Buchholz Großenbaumer Allee 250, 47249 Duisburg ☎ 0203 / 7688-1 Emergency room ☎ 0203 / 7688-3535	
	Sana Hospital Duisburg Zu den Rehwiesen 9, 47055 Duisburg ☎ 0203 / 733-0	
Accident insurance consultant* (slightly injured)	Surgeon Mülheimer Straße 70, 47057 Duisburg ☎ 0203 / 351217 Mo, Di, Do 08:00 am - 6:00 pm M + Fr 08:00 am - 12:00 pm	
Eye injury*	Eye clinic Mülheim Wertgasse 30, 45468 Mülheim ☎ 0208 / 309-1	
Poison-centre	Information-centre Berlin ☎ 030 / 19240 Information-centre Bonn ☎ 0228 / 19240	

Appendix C: List of recovery rooms

The following rooms are equipped with first-aid material and a stretcher.

Room number	Location and access
LK 0145	durch Hausmeister öffnen lassen
LX 1208	durch Hausmeister öffnen lassen
MF 0081	durch Hausmeister oder Mitarbeiter des Chemikalienlagers öffnen lassen
LN 0321	durch Hausmeister öffnen lassen (LN 2441)
AG 0031	durch Hausmeister öffnen lassen

Appendix D: Deactivation of fire detections

To avoid false alarms the fire detectors must be deactivated before starting hot-work (welding etc.). Please pay attention to the procedure for the deactivation of fire detectors.

Before work begins it must be clarified whether smoke detectors or smoke aspirating detection systems are located nearby and whether the planned activities may activate them.

Smoke or dust producing actions may activate smoke detectors, e.g.:

- welding,
- working with a naked flame,
- painting, bonding or grinding work
- drilling or chiselling operations

The covering of single smoke detectors, e.g. with a plastic bag is prohibited.

The deactivation of fire detectors be effected only on the request of „authorized persons“. The organizational units of the UDE or the office responsible for building and real estate (BLB NRW) can nominate „authorized persons“ in coordination with the Staff Unit for Occupational Safety and Environmental Protection.

Appendix E: Permit for hot-work

Welding, working with a naked flame, painting, bonding or grinding work, drilling- or chiselling operations performed by members/non-members of the UDE outside of the designated areas need a permit for hot-work (available only in German). A copy must be sent to the Staff Unit for Occupational Safety and Environmental Protection. The original version remains with the person giving the order to carry out the work. The person who giving the order must be authorized by Staff Unit for Occupational Safety and Environmental Protection.

Permit for hot-work:



Heierlaubnisschein

fr Schwei-, Schneid-, Lt-, Auftau-, Trennschleif- und hnliche Arbeiten mit offener Flamme

01	Einsatzort		
02	Arbeitsauftrag		
03	Ausfhrender		
04	Art der Arbeiten	<input type="checkbox"/> Schweien <input type="checkbox"/> Schneiden <input type="checkbox"/> Lten <input type="checkbox"/> Auftauen <input type="checkbox"/> Trennschneiden <input type="checkbox"/> Sonstiges :	
05	Ausfhrungszeit (max. 4 Wochen)	Datum von: _____ bis: _____	
06	Sicherheitsvorkehrungen vor Beginn der Arbeiten	<input type="checkbox"/> Entfernen smmtlicher brennbarer Gegenstnde und Stoffe im Umkreis von 11m <input type="checkbox"/> Abdecken der gefhrdeten brennbaren Gegenstnde vom Arbeitsbereich mit zugelassenem Material <input type="checkbox"/> Abdichten der ffnungen, Fugen, Ritzen und sonstigen Durchlsse mit nichtbrennbaren Stoffen <input type="checkbox"/> Entfernen von Umkleidungen und Isolierungen <input type="checkbox"/>	Name : _____ Ausgefhrt : _____ Unterschrift
07	Sicherheitsvorkehrungen bei Explosionsgefahr	<input type="checkbox"/> Entfernung smmtlicher explosionsfhiger Stoffe und Behlter mit gefhrlichen Inhalt oder dessen Resten <input type="checkbox"/> Explosionsgefahr in Rohrleitungen beseitigen <input type="checkbox"/> Abdichten von ortsfesten Behltern, Rohrleitungen, Apparaten, die brennbare Flssigkeiten, Gase oder Stube enthalten oder enthalten haben ggf. in Verbindung mit lufttechnischen Manahmen <input type="checkbox"/> Durchfhren lufttechnischer Manahmen nach EX-RL in Verbindung mit messtechnischer berwachung <input type="checkbox"/> Aufstellen von Gaswarngerten <input type="checkbox"/>	Name : _____ Ausgefhrt : _____ Unterschrift
08	Brandmeldeanlagen	Bereichsweise Abschaltung erforderlich? (Hinweis: Nur durch autorisierte Personen mglich) <input type="checkbox"/> Nein <input type="checkbox"/> Ja Autorisierte Person Name : _____ Meldergruppe / Melder Nummer : _____	
09	Brandwache erforderlich	<input type="checkbox"/> Nein <input type="checkbox"/> Ja, whrend der Arbeit Name : _____ <input type="checkbox"/> Ja, () Stunden nach der Arbeit Name : _____	
10	Alarmierung	Nchstgelegener Standort von Brandmelder : _____ Telefon : _____ Feuerwehr : 112	
11	Lschgert / -mittel	<input type="checkbox"/> Wasserlscher <input type="checkbox"/> CO2-Feuerlscher <input type="checkbox"/> ABC-Pulverlscher <input type="checkbox"/> Schaumlscher <input type="checkbox"/> D-Pulver (Metall) <input type="checkbox"/> Wasserschlauch <input type="checkbox"/> Gefllter Wassereimer <input type="checkbox"/> Sonstiges: _____	Name : _____ Ausgefhrt : _____ Unterschrift
12	Vorkehrungen nach Arbeitsende	<input type="checkbox"/> Querlften <input type="checkbox"/> Sonstiges : _____	
13	Auftraggeber	Die Manahmen tragen den entstehenden Gefahren der rtlichkeit Rechnung. Datum: _____ Unterschrift	
14	Auftragnehmer	Die Arbeiten drfen erst begonnen werden, wenn die Sicherheitsmanahmen durchgefhrt wurden. Datum: _____ Unterschrift	Kenntnissnahme Ausfhrender : _____ Unterschrift

Dem Brandschutzbeauftragten der Stabsstelle Arbeitssicherheit & Umweltschutz ist durch den Auftraggeber eine Kopie des ausgefllten und unterschriebenen Erlaubnisscheines zuzusenden.
 Campus Duisburg: mark.esser@uni-due.de / Campus Essen: thomas.purschke@uni-due.de

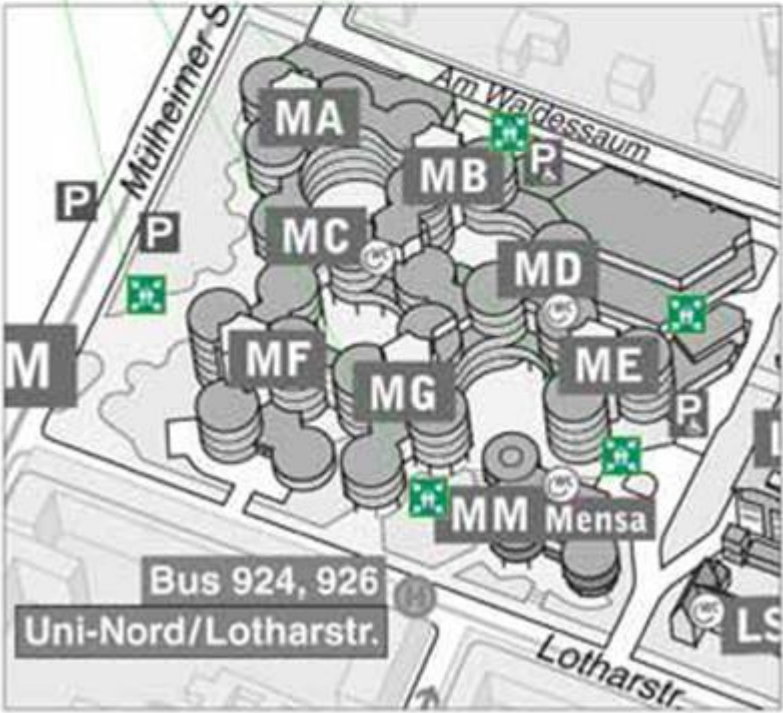
Ersteller: Stabsstelle Arbeitssicherheit & Umweltschutz / Stand: 07-2019 / Rev. 2

Send a signed copy to the Staff Unit for Occupational Safety and Environmental Protection.

Appendix F: Map of M-Area (north), Mülheimerstraße



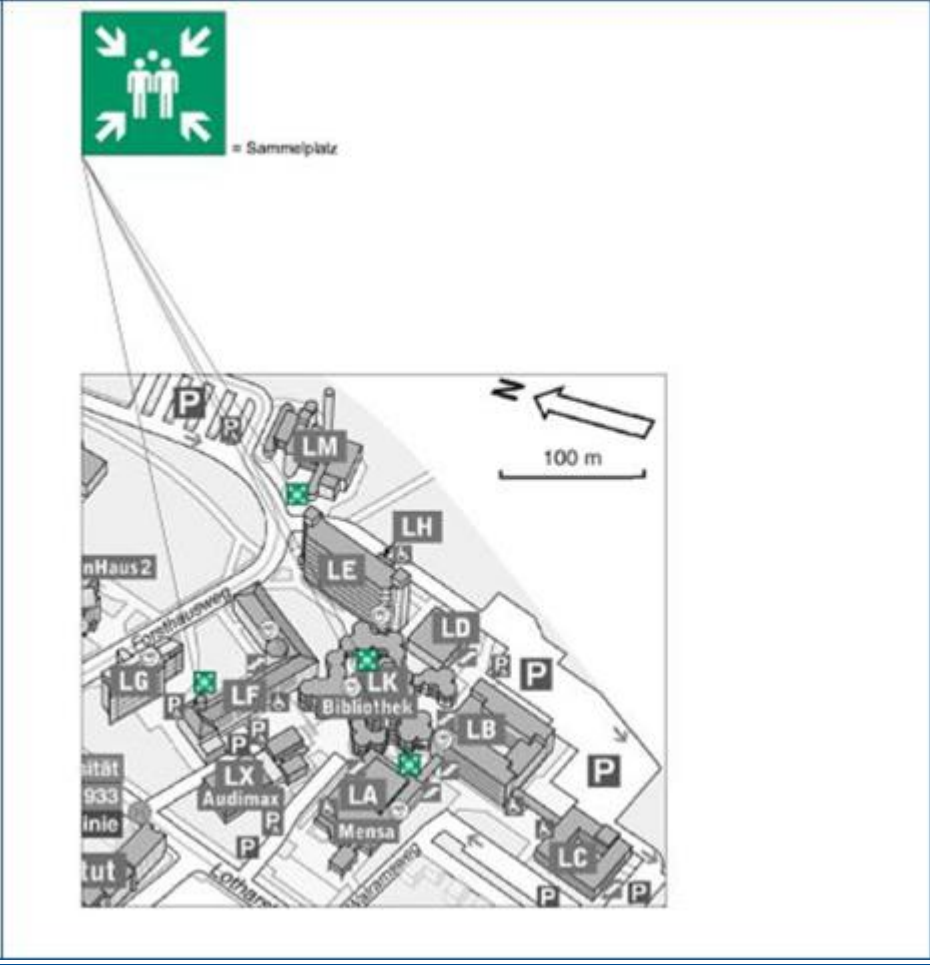
= Sammelplatz



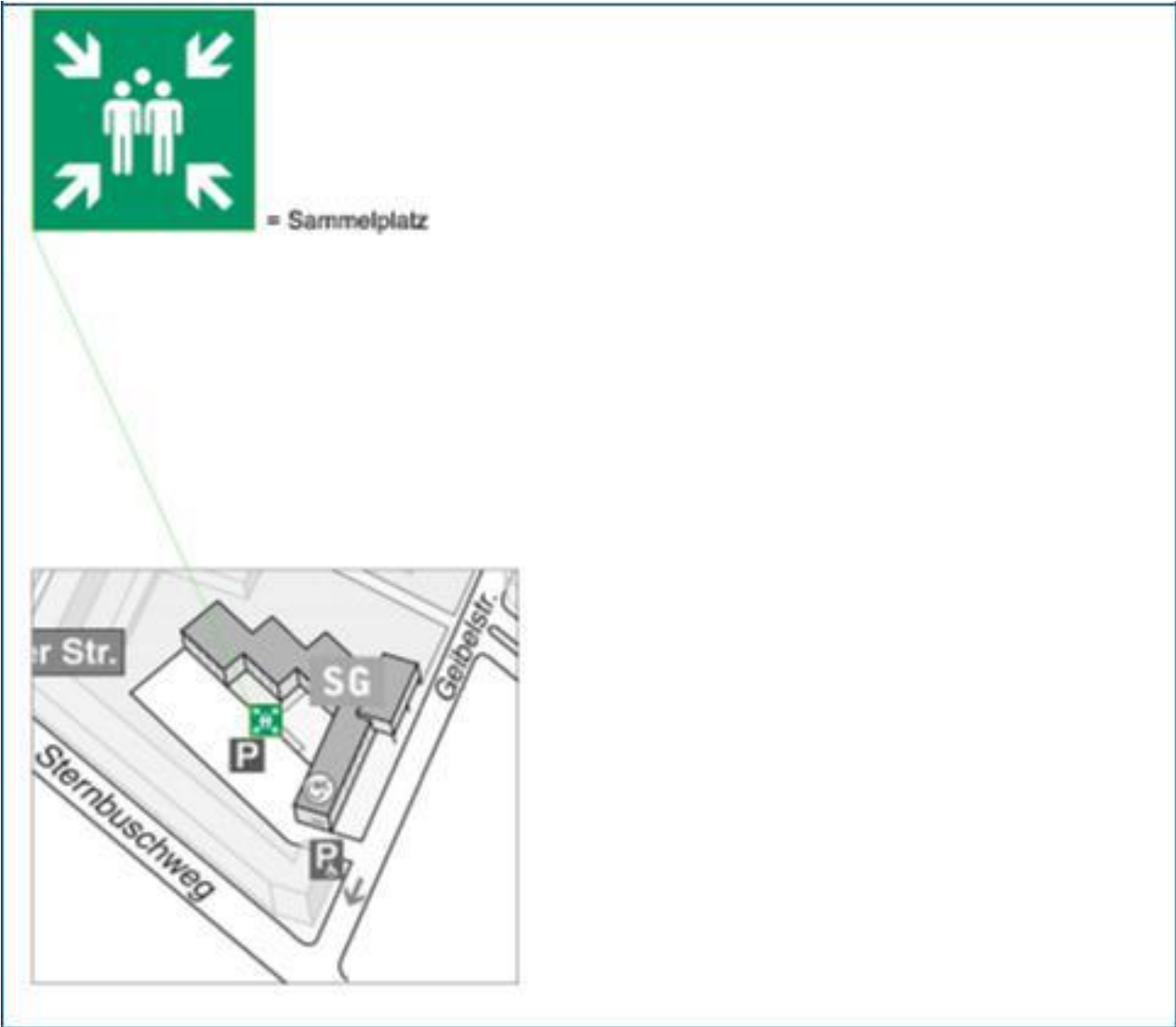
Appendix G: Map of L-Area (central), Lotharstraße



Appendix H: Map of L-Area (north), Lotharstraße



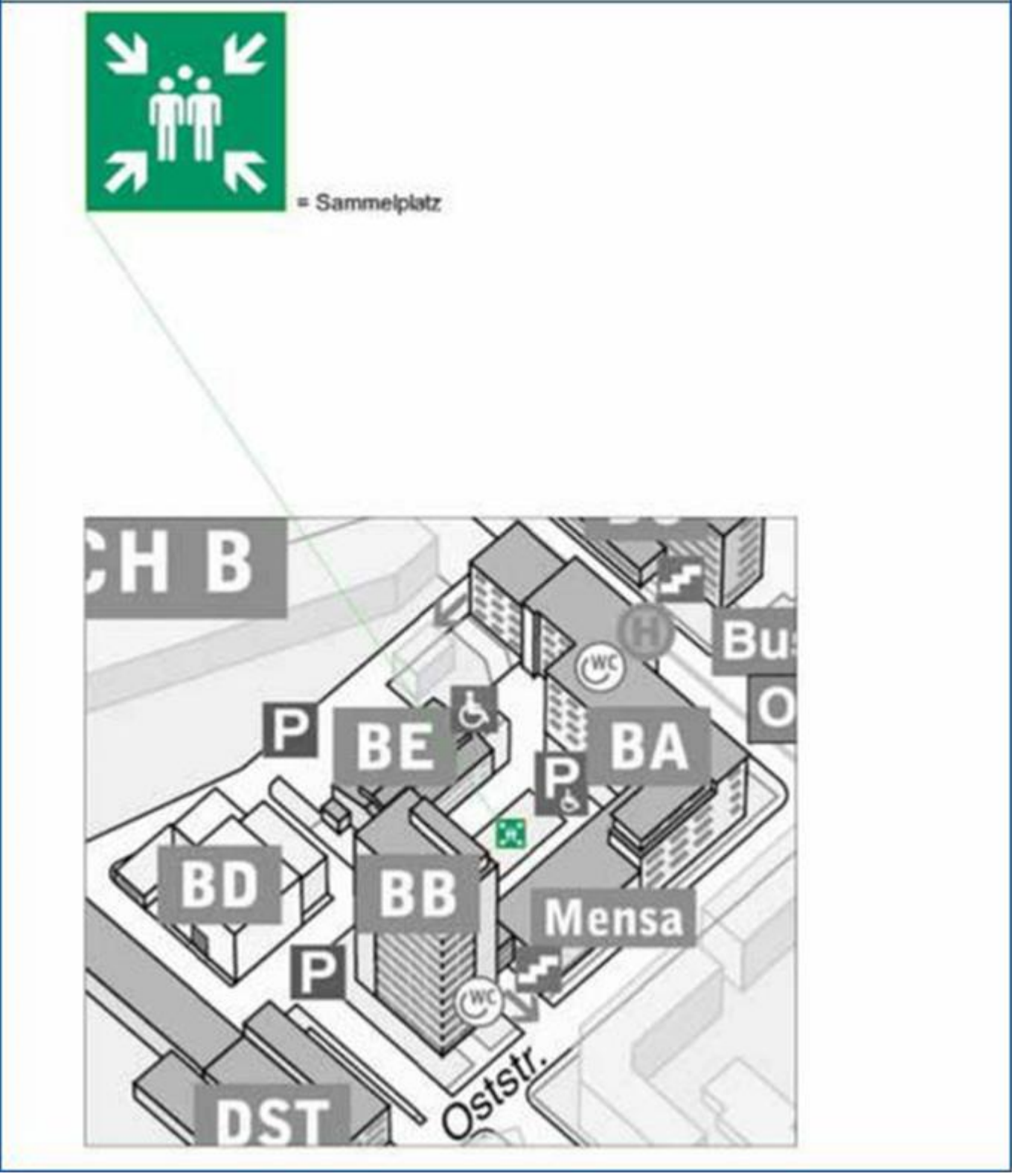
Appendix I: Map of area SG-Building, Geibelstraße



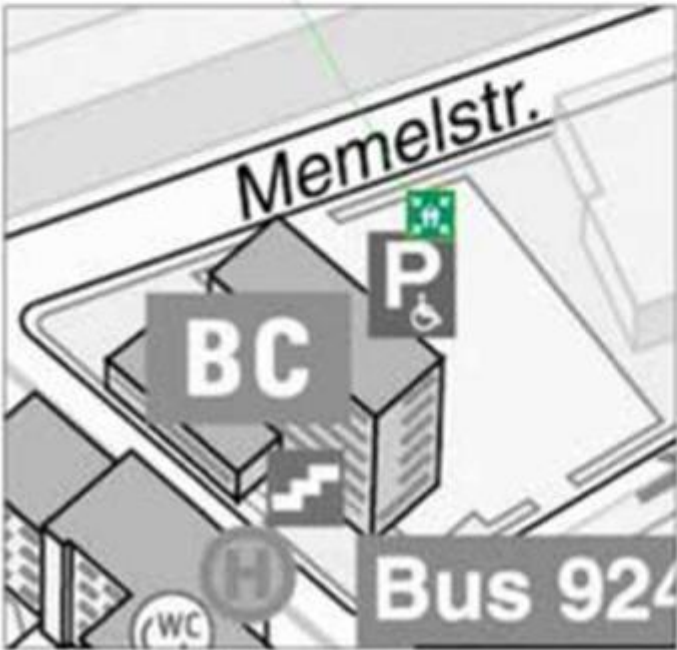
Appendix J: Map of area ST-Building, Ruhrort



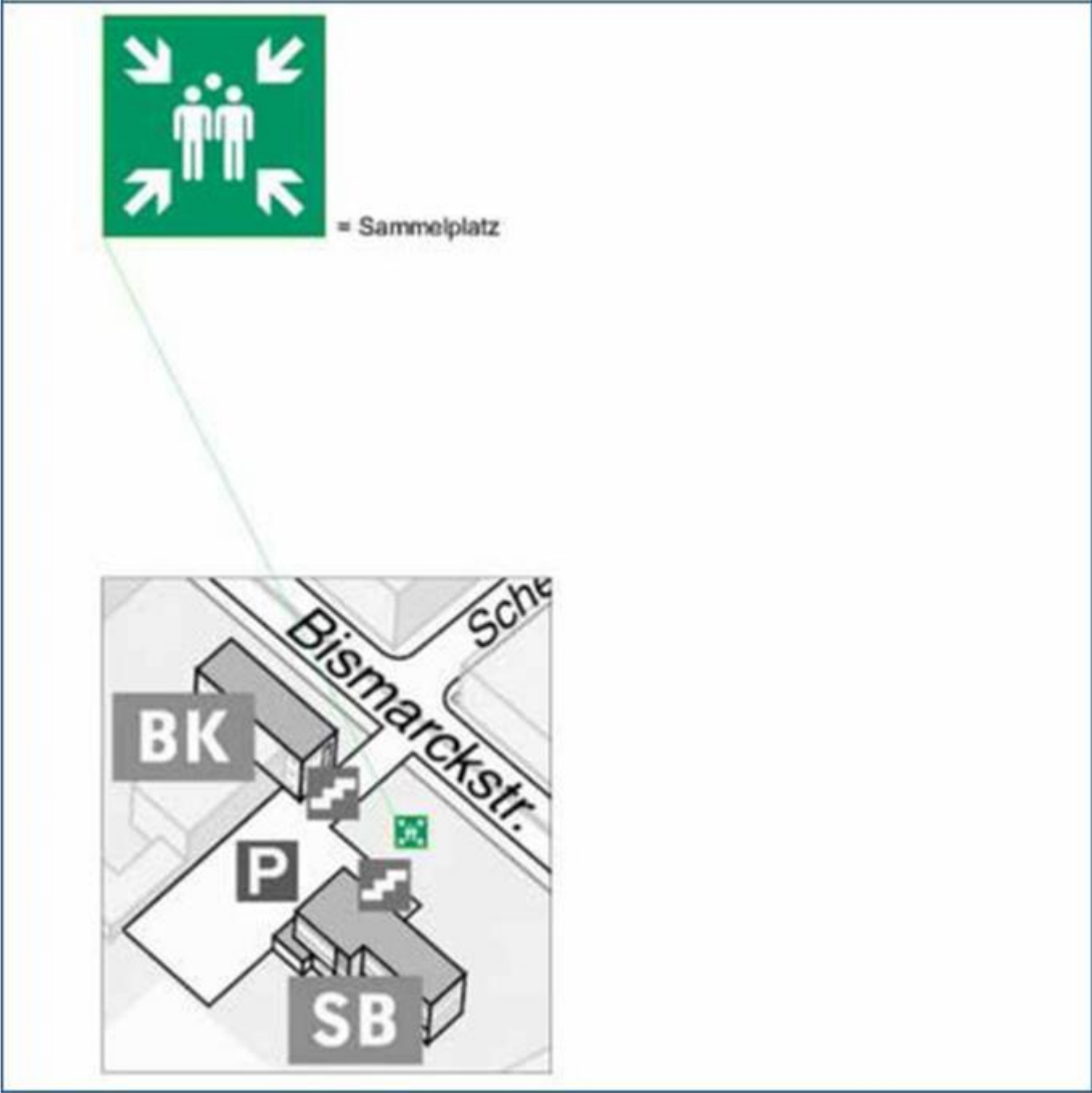
Appendix K: Map of B-Area, Bismarckstraße



Appendix L: Map of area BC-Building, Bismarckstraße



Appendix M: Map of area BK-Building, Bismarckstraße



Appendix N: Map of area SK-Building, Keetmannstraße



There is no assembly point at the SK-Building. During a fire alert all affected persons assemble on the opposite sidewalk.