# Plan for health and safety

Refurbishment of multistory residential building from 1952, Østerled 3a-3b, 8700 Horsens

5<sup>th</sup> semester international, AH51P-19S School Architects A/S

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## Organization

### **Project management**

**Client/Building Owner:** 

Housing Association A/S

Chr. M. Østergårdsvej 4,

8700 Horsens

The client's supervisor:

Kenneth Hansen

8000 Aarhus C

+4540280267

**Contractors' site managers:** 

Lars Henriksen 8700 Horsens

+421910343843

**Project management:** 

Laura Vohryzková,

291751@via.dk

School Architects A/S,

8700 Horsens

**Safety Coordinator:** 

Soren Peterson,

Soren.peterson@email.dk

School Architects A/S,

8700 Horsens

+000123456

**Site Inspection:** 

(from Housing Association)

Maria Larsen

Chr M Østergaards Vej 10, 8700 Horsens

+421910343843

Health and Safety plan author (on

behalf of the client):

Laura Vohryzková\_

291751@via.dk

School Architects A/S, 8700 Horsens

+420728526646

#### General

Rules concerning Health and Safety plan:

- 1. All contractors and their employees participate actively in the safety work.
- 2. Makes sure that all their own activities are carried out in a safe and healthy manner.
- 3. Collaborates with the project manager and coordinators to do the project as planned.
- 4. Complies with all agreements and guidelines.

### **Safety Meetings**

The safety coordinator arranges safety meetings and prepares the minutes. All the contractors working on the site currently must be represented by at least 1 representative. Meetings must be held every 2 weeks or with new contractors and before new construction phases.

### Safety coordination

The person to whom the employer has transferred the duty of completing the Health and Safety plan and coordinating safety work on site is Site Manager (Laura Vohryzková). This person must have knowledge about safety or have a connected education. The trade contractors must participate with the Safety Coordinator's work with and follow up of the Health and Safety Plan.

The reporting of the building site to the Site Inspector is a duty of Safety Coordinator. Safety coordinator must ensure that safety requirements are fulfilled all the time. Transfer of the contractor's responsibilities for inspection and maintenance of the respective health and safety provisions can only be achieved after written approval from the safety coordinator.

## **Building Site**

#### General

Apart from stipulations about the building site, this chapter gives information of an informative nature about who implements the various site provisions. The services in connection with the different site provisions are stated in the relevant work specifications.

The specification of services will normally be given in the work specifications.

### **Stipulations**

### Local authority regulations

All works must comply with general and local regulations (according to highest significance)

#### Permission from local authorities

The respective contractors must apply for and attain the necessary permits and give the authorities the relevant notifications in good time – Building permit.

### Transport and handing over

It is the duty of the contractor to re-establish the areas that are not part of the finished works, but which the subcontractor (Bricklayer) uses in connection with the completion of works, so that they appear as they did when the contract was awarded - but only to the extent that this does not conflict with the General Conditions of Danish Liability Legislation.

Contractor must convene a meeting, with the participation of the project management and the road authorities, to examine the road network before the start of works. The contractor must make a registration of existing building components bordering up to the work area. Any damage to the structures must be noted before work begins. The localities are taken-over in a condition cleared of loose items and furnishings. Respective contractors, to the extent it is stated in the work specifications, must remove fixed furniture and equipment. Covering and protection of building components must be undertaken by contractor:

- Site manager
- Sub-contractor (BRICKLAYER, A/S) responsible person

### **Existing conditions**

Buildings, crossings, pavements, roads, masts, piping and conduits, courtyards, fences, sign-posts, trees and bushes, must not be damaged. The necessary provisions must be taken to maintain plants. It is the duty of the contractor to notify the owner of conduits, pipes and cables (public authorities, companies and private persons) of works and conduct the work in accordance with their directions.

### Organization of the building site

### **Site Drawing**

The Health and Safety coordinator updates the site plan, for example, as part of the completing and revising the Plan for Health and Safety.

School Architects provide general Site plan under number K01 TXX H1 EX N03 building site plan and Site plan for Bricklayer (BRICKLAYER, A/S) under number-KO1 TXX H1 EX NO7 Bricklayer - building site plan.

### **Building Site Boundaries**

The boundaries of the site are shown on the site plan. If a contractor wishes to extend the site area beyond the boundaries shown, he/she must secure the necessary permission for this after prior agreement with the project management.

#### **Security Guard**

The employer does not establish the security guard system.

### Security against theft from the site

The employer does not establish the security system against theft from the site.

#### Sign Posts

Each individual contractor is responsible for signposting the door of own portable site cabins. Each individual contractor is responsible for signposting own site working areas. Details about necessary sign-postings are acknowledged in Case Specification. Contractor delivers and sets-up the following signs in the common traffic and work areas at the beginning of construction on site and removes them after the completion of construction:

- Sign "Mandatory helmet area"
- Sign "No trespassing"
- Sign "Security cameras"
- Sign "Mandatory safety shoes area"

### Screening off/ Cordoning of 3<sup>rd</sup> person

The building is located in the city, so screening of is required by law. Detailed information about placement of the screening is showed on KO1 TXX H1 EX NO7 Bricklayer - building site plan and information about materials and rules of setting are described in Case Specification.

### **Building site traffic areas**

### **Parking**

The temporary parking will be made for the workers. It should be made to avoid workers passing near/under constructions where dangerous work is carried out. The placement is showed on KO1\_TXX\_H1\_EX\_NO7 Bricklayer - building site plan.

#### **Outdoor traffic areas**

The outdoor traffic areas are shown on the site drawing. Heavy lorries and trailers, i.e. Element trailers, earth dumpsters, and mobile concrete mixers, can use the site roads. All roads are drained and secured against the weather conditions. Outdoor traffic area may, under no circumstances be partly or entirely blocked off with the permission of the project management.

### Traffic areas inside the building

Traffic areas and corridors must under no circumstances be blocked off entirely or partly without the permission of the project management. Common traffic areas in the building or building excavation is to comprise:

- Internal staircases.
- Internal gangways

And areas, which, after the completion of the building, will constitute internal corridors, passages, staircases, etc. Contractor will deliver, set-up, maintain, move and remove the internal staircases and gangways, etc. Staircases and gangways can be given a load of up to 300 kg/sqm. The internal staircases and gangways will, during the construction, be replaced by permanent ones.

Traffic areas inside the buildings must be closed while dangerous works are carried out above (e.g. beams, roof, deck, etc.) with help of warning signs.

### The coverings of holes and rebates in the traffic areas

Holes, such as light-shafts, wells, etc., in traffic areas are covered with boarding or lids that are fixed. The responsibility for covering holes and keeping them covered is that of the contractor who makes the holes (demolition and concrete). The aforementioned contractor does any temporary removal, screening off and reestablishing of these covers during construction.

### **Lighting of traffic areas**

The extent of the lighting is shown on the building site plan. Soil contractor establishes, maintains and removes lighting in traffic areas. Lights in building site traffic areas are mounted on light-masts. Traffic areas in buildings are lit with orientation lights with a minimum strength of 25 lux. This is done with light-chains. Building site lights are controlled using "twilight relays" with a switching on clock device with 24-hour and week program. The employer pays for the cost of lighting common traffic areas.

#### Provisions for inclement weather in traffic areas

Inclement weather provisions are planned and set in action in good time and to such a degree that they are able to ward off the adverse effects on time schedules and quality of work. Clearing of snow and similar work must be, as far as possible, done in the period before normal work starts. Soil contractor is responsible for cleaning of any kind of weather-created pollution in the area of wooden construction and serving traffic areas.

### Clearing and cleaning common traffic areas

The contractor (BRICKLAYER A/S) must constantly participate in keeping the traffic areas cleared and cleaned. The contractor must regularly, but at least once a week (usually at the end of the working week) clean up after his work activities. The project management can appoint one contractor as the coordinator for clearing up the common traffic areas together with other contractors. Removal of dust in buildings must be done using vacuum cleaning.

### Portable cabins and storage areas

#### Portable site cabin conditions

The location of portable cabins is given on the site plan. Contractor (BRICKLAYER A/S) must establish, run, maintain and remove their own cabins, which are at the disposition of all contractors during the construction. Contractor must take care of daily cleaning of the cabins and ensure the supply of soap, toilet paper and paper towels.

### **Storage areas**

The location of storage areas is stated on the building site drawing KO1\_TXX\_H1\_EX\_NO7 Bricklayer - building site plan. Storage of materials in traffic areas is strictly prohibited.

### Handling of refuse and refuse containers

BRICKLAYER A/S must establish, mark and empty the refuse CONTAINERS during the construction period and remove them once the construction period is finished. Containers and skips are placed in accordance with the building site drawing.

BRICKLAYER A/S is obligated to re-move his REFUSE from work sites and storage depots and deposit them in containers and skips or remove them from the site completely, on a regular basis. BRICKLAYER A/S must sort and handle building refuse in accordance with the council's regulations in this area stated in Case Specification.

Building-refuse must be sorted in the following fractions:

- Wood
- Metals
- Plastics
- Insulation
- Concrete and brick
- Food and natural wastes

Packaging, etc., must be wrapped up and placed in the skip so that it takes up as little space as possible.

### Lighting of portable cabin area and storage areas

BRICKALYER A/S establishes, maintains and removes lighting appliances in accordance with the building site drawing using minimum 25 lux light strength in common traffic areas, in portable cabin and storage areas. For enough light amount lighting devices should be installed at max. 25 meters from each other.

### Cleaning in the portable cabin and storage area

BRICKLAYER A/S are obligated to clean their respective storage areas or sheds.

If the project management's directions are not followed, the work will be done at the expense of BRICKLAYER A/S and the expenses will be deducted from contractor's account.

#### First Aid Post

Demolition contractor in period from 13.01.2020 until 10.04.2020 and carpenter in period from 10.04.2020 till 13.07.2020 supplies the First Aid Box and has the responsibility of ensuring that it always has the necessary minimum content of items. The First Aid Box must be stored in one of the sheds and available at any time by any worker.

### Fire-fighting materials

Carpenter contractor supplies fire-fighting equipment and materials. Agreed equipment is usually stated on site plan.

#### Kevs

After closing the building, keys must be handed to building site manager and/or a responsible person from contractor (Demolition and Concrete Contractor AND Carpenter Contractor) which is working on site in given time.

BRICKLAYER A/S employers are also responsible for keys for personal sheds, lockers and if necessary safe deposit, which should be locked after each working day.

#### **Work Areas**

#### Covering of holes and rebates in work areas

Rebates and holes in work areas, such as floor slabs and roof surfaces, etc., must be securely covered with fixed covers and boarding. Demolition and Concrete Contractor is responsible for closing holes, roof and maintaining the covers. Any temporary removal of covers due to work processes must be followed by the same contractor replacing and fixing the cover.

### Establishing guard railings in work areas

Where slabs, work platforms, scaffold floors and gangways are elevated more than 2 m over the surrounding area, guard railings must be fixed along their free edges.

Any temporary removal of railings due to work by any contractor must be followed by provisions for preventing falls before and during the period of removal, followed by replacement of the railings after the work by the same contractor.

### Lighting in common work areas

Soil Contractor must supply the light sources during work in all contractors in all working areas.

### Provisions against inclement weather in work areas

Inclement weather provisions are planned and set into action in good time and to such an extent as to minimize the effects of the weather on milestones in the project and on work quality.

Clearance of snow and similar work shall, as far as possible, be done before the beginning of normal working time.

Carpenter Contractor is assigned with the task of providing interim heating and dryingout of wooden part of the building.

Soil Contractor is assigned with the task of clearing snow, de-icing and gritting (spreading gravel on) common work areas when working on building site.

### Clearing-up and tidiness in work areas

It is always the duty of each contractor (BRICKLAYER A/S) to keep their work areas tidy from refuse, materials and tools and remove the aforementioned if they are an obstacle for the progress of the construction.

The project management can appoint one contractor to coordinate the cleaning-up and tidying-up process together with other contractors on the site's common work areas.

Removal of dust from the building must be by vacuum cleaning.

If a contractor does not withhold the management's directions about tidiness, the management has the right to tidy up the work areas at the expense of the said contractor. The cost for such work will be deducted for the contractor's amount due.

#### **Technical Aids**

#### **Cranes and material lifts**

To use a crane BRICKLAYER A/S must give a written account for setting-up, power supply, use and maintenance, before the equipment (after permission for the management) will be delivered to the building site. Setting up a crane must only take place with the explicit permission of the project management. Contractor sets-up, maintains and removes the crane. More information can be found on the building site drawing.

### Scaffolding

Setting-up and disassembling of scaffolding must be done after approval form the project management. The scaffolding system must be labelled with a plate informing about the erecting contractor, the rental company, and the permissible load.

The contractor must participate in rationalizing the collective site's work by allowing others to use his scaffolding when it is appropriate and does not inconvenience the contractor and rental company, and if the scaffold does not suffer any damage. Size, type, material and extent of the common scaffolding is shown on the building site drawing. The scaffolding will be at the disposal of contractors in the construction period if necessary. The project management co-ordinates the work on common scaffolding.

### Supply to the Site

#### Water and sewer

Tap points are established in accordance with the site drawings.

BRICKLAYER A/S must make their own provisions and pay for the connection of their portable cabins to the main water and sewage system of the site. Connection must be made from the connection points shown on the site drawing.

Soil Contractor establishes, maintains and removes the water supply system for use in construction on behalf of all contractors.

Soil Contractor connects-up, maintains and removes interim water and sewage systems to common portable cabins and meeting and office units in time then working on building site.

The supply is established with frost-proofed design if the supply is needed in the winter period.

The client pays for water consumption and sewage.

#### Electricity

The main electrical boards are shown on the site drawing. The client bears the cost of connecting their own electrical material up to the main boards. BRICKLAYER A/S employers must uncouple connections from his sub-board to the main board at the end of each workday.

Soil Contractor installs, maintains and removes the power supply for their construction time on behalf of all contractors.

Soil Contractor installs, maintains and removes the power supply to common portable cabins and meeting and office facilities for the time of executed works.

Similar supplies to own portable cabins, material containers, etc., is the responsibility of BRICKLAYER A/S.

Soil Contractor is responsible for mandatory inspection of electrical installations.

The client is paying for energy consumption.

## **Building Site Plan**

### **Site Drawing**

Building site construction plan can be found with number KO1\_TXX\_H1\_EX\_NO3 building site plan,

KO1\_TXX\_H1\_EX\_NO7 Bricklayer - building site plan.