

Case Specifications

Group 5

CAHS52-A10

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Project Specific Specifications

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Basis Specification (right page)

2. Orientation

2.1 General

The directions in the Works Specification have priority over the stipulations in the Case Specifications

In the case of the Work Specification, the Building Component Specifications (Chapter 4) and drawings have priority over the Work Specifications' Chapter 3.

2.2 The Project Background

2.3 Summary of Contracts/Works

2.4 Project Documents

2.5 Project Organisation

- The Client: Østerbo housing association Vejle.
- Users of the building: Rented out for families and companies
- The site address: Moldevej 29-39
- Client's consultant or project administrator: Group 5 CAH52

Project Specific Specification (left page)

2. Orientation

2.1 General

BPS Basis Specifications – The Building Case, publication B201, edition 2001-08-06 is, together with this project specific specification, valid for this particular project. The project specific stipulations have priority over the Basis Specifications.

2.2 The Project Background

The project consists of renovation of a five storey building in Moldevej 29-39 with a floor area of 4672 square metres. The project also consist of adding a penthouse on top of the existing building and building two external staircase and access balcony structures .

2.3 Summary of Contracts/Works

The project is subdivided into the contracts/works show below:

- 01. Landscaping Contract
 - 01.1. Clearing works
 - 01.2. Excavation
 - 01.3. Road and terrain surfacing works
 - 01.4. Landscape gardening works
- 02. Basic load bearing construction
 - 02.1. Pile foundations
 - 02.2. Sewer and drainage works
 - 02.3. Concrete works
 - 02.4. Concrete element works
 - 02.5. Masonry works
 - 02.6. Site works
- 03. Carpentry Contract
 - 03.1. Carpentry works
 - 03.2. Joinery works
 - 03.3. Furnishings

2.4 Project Documents

The project documents are structured in accordance with SFB coding system.

8. Scheduling

- Designer with field of responsibility: Garazi Zabalbeitia
- Project management and its organisation including the site manager and site inspection.
Site management: Laimonas Norvaisas
Site Inspection: Povilas Svendrys
- Health and safety organisation done by Hector Huerta Angulo.

3. GC 92

Remarks for GC92

§ 1. Subs. 6. All documents shall be drafted in English and all indications of currency, measures and weight shall be Danish indications. Negotiations, including site meetings, shall be conducted in English. If documents are also drafted in another language and in the event that discrepancies appear between the foreign-language version and the English text, the English text shall prevail.

§ 5. Subs. 2 The contractor can only assign claims regarding his total amount due to a bank, savings bank or other approved financial institution with payment address in Denmark.

4. Building Site

4.1. General

Building site at Moldevej 29-39 will be established by Main contractor. The building site should fulfil all demands according to BR08 and should be planned according to a received building site plan.

4.2. Stipulations

4.2.1. Directions from authorities

Work involving the danger of fire or sparks (so-called “hot works”, eg. asphalt roofing or angle grinding, etc.) must be implemented by observing the “Directions for Fire Safety no. 10a and 10b of 10 April, 1994, issued by The Danish Institute of Fire Safety.

4.2.2. Planning Permission and notification to the authorities.

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

4.2.3. Other stipulations

4.3. Transfer and handing over

4.3. Transfer and handing over

Main 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.

8. Scheduling

Any damage to the aforementioned 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 the main contractor

- Main contractor

4.4. Existing conditions

Buildings, crossings, pavements, roads, masts, piping and conduits, courtyards, fences, signposts, trees and bushes, must not be damaged.

The necessary provisions must be taken to maintain plants. The cutting and trimming of trees and bushes must not be done without the prior permission of the project management.

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.

Before excavation near existing piping, the owner must be summoned by the contractor to show the location of said piping, etc.

If gas, water, sewer- and other piping is to be severed from the main pipe, it will be done at the contractor's arrangement and at his/her expense and liability.

4.5. Marking out by the employer

The expense for any marking out above and beyond that of the employer's marking out must be included in the individual contracts.

4.4. Existing conditions

The existing conditions on site are shown on drawing number.

Contractor <x> must come up with the following information about cable, pipes and conduits:

- Main Contractor
- <x>

4.5. Marking out by the employer

The employer marks out, once and for all, <x> nos. main reference lines and <x> nos. reference levels as stated in drawing <x>. Main contractor is responsible for maintaining these settlements and levels.

Contractor <x> marks-off and maintains <x> nos. fixed level settings for other contractors use, as describe in drawing no. <x>

4.6. Organisation of the building site

4.6. Organisation of the building site

4.6.1. 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.

4.6. Organisation of the building site

4.6.1. Site drawing

8. Scheduling

4.6.2 The 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.

4.6.3. Fencing-in the building site

4.6.4. Closing-off

4.6.5 Security guard

4.6.6. Security against theft form the site

4.6.7. Signposts

Each individual contractor is responsible for signposting the door of own portable site cabins.

Each individual contractor is responsible for signposting own site work areas.

4.6.2 The building site boundaries.

The site boundaries are shown on site plan no. <x>.

4.6.3. Fencing-in the building site

Main contractor establishes moves, maintains, and removes the site fencing. The scope of the building site fencing is shown on drawing no. <x>.

The boundary fence has a height of <x> m. The material used for the fence is steel. The time for establishing the fence is stated in the tender time schedule.

4.6.4. Closing-off

Main contractor must establish, maintain and take down any interim covering/protection to the building. Holes for windows must be closed-off with wooden frames clad with plastic foil. Door openings must be closed-off with interim wooden doorplates with a lock system.

Main contractor must ensure daily opening at 07:00 o'clock and closing at 17:00 o'clock of the building site.

4.6.5 Security guard

The employer does <not> establish the security guard system.

The security system is managed by <x> and includes <x>.

4.6.6. Security against theft form the site

The employer does establish the security system against theft from the site.

The security system against theft from the site is managed by main contractor and includes alarm system and at least three security cameras.

4.6.7. Signposts

Main 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:

- nos. sign board with the text "Mandatory helmet area"
- nos. sign board with the text " No trespassing"
- <x> nos. sign board with the text "<x>"

8. Scheduling

4.6.8 Screening off /cordonning off of 3rd person.

It is the responsibility of each individual contractor to secure that traffic around buildings and roads/pathways are screen off and secured against falling building materials and other objects from the site.

4.7. Building site traffic areas

4.7.1. Parking

4.7.2. Outdoors traffic areas

The outdoor traffic areas are shown on the site drawing.

The site roads can be used by heavy lorries and trailers, e.g., element trailers, earth dumpsters, and mobile concrete mixers. All roads are drained and secured against the weather conditions. Outdoor traffic area may, under no circumstances be partly or wholly blocked off with the permission of the project management

4.7.3. Traffic areas inside the building

Traffic areas and corridors must under no circumstances be blocked off wholly or partly without the permission of the project management.

4.7.4 The covering of holes and rebates in the traffic areas.

Holes, such as light-shafts, wells, etc, in traffic areas is to be 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.

4.6.8 Screening off /cordonning off of 3rd person

Main contractor establishes, maintains and removes screens and other provisions towards streets, around buildings, etc that are set-up in the interest of public safety. The screening is minimum 2.4 m high and made in waterproof plywood.

4.7. Building site traffic areas

4.7.1. Parking

Private parking is provided at Moldevej 29-39

4.7.2. Outdoors traffic areas

Main contractor establishes, maintains, secures against weather conditions, relays and removes building site roads, crossings in accordance with the Tender time schedule and the building site drawing no. <x>.

4.7.3. Traffic areas inside the building

Common traffic areas in the building or building excavation is to comprise:

- nos. interim staircases.
- nos. Interim gangways

and areas which, after the completion of the building, will constitute internal corridors, passages, staircases, etc.

Main contractor will deliver, set-up, maintain, move and remove the interim staircases and gangways, etc.

Staircases and gangways can be given a load of up to 300 kg/sq.m. The interim staircases and gangways will, during the course of construction, be replaced by permanent ones.

4.7.4 The covering of holes and rebates in the traffic areas

8. Scheduling

The aforementioned contractor does any temporary removal, screening off and re-establishing of these covers during construction.

4.7.5. Establishing of railings in traffic areas

Guard railings must be set-up along all traffic areas where there is a level jump of more than 2 metres. Any temporary removal of railings because of a contractor's work must be re-established by the same contractor after the work is completed. During the work, the contractor must take measures to prevent accidents until the railings are re-established.

4.7.6. Lighting of traffic areas

The extent of the lighting is shown on the building site plan.

4.7.7. 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.

4.7.8. Clearing and cleaning common traffic areas

The contractor must constantly participate in keeping the traffic areas cleared and cleaned.

4.8. Portable cabins and storage areas

4.8.1. Portable site cabin conditions

The location of portable cabins is given on the site plan.

4.7.5. Establishing of railings in traffic areas

Main contractor sets-up, maintains and removes the railings along common traffic areas as shown on building site drawing no. <x>.

4.7.6. Lighting of traffic areas

Main 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 programme.

The employer pays for the cost of lighting common traffic areas.

4.7.7. Provisions for inclement weather in traffic areas.

Main contractor is responsible for providing inclement weather provisions in common traffic areas of the building site.

4.7.8. Clearing and cleaning common traffic areas

Main contractor cleans and clears the common traffic areas in the building for dust and the like, which cannot be identified to a specific contractor.

4.8. Portable cabins and storage areas

4.8.1. Portable site cabin conditions

Main contractor must establish, run, maintain and remove the following cabins, which are at the

8. Scheduling

The situation of the individual contractors' site cabins must be agreed with the project management if it is not stated on drawings.

disposition of all contractors during the course of construction:

- Portable cabin for 15 persons with toilet, shower, washbasin and locker facilities, and dining room.
- Meeting and office facilities for holding site meetings, etc. The cabin contains a meeting room for 4 persons and 1 separate office with 1 office stations. The cabin is fitted with toilet and washbasin.

Main contractor must take care of daily cleaning of the cabins and ensure the supply of soap, toilet paper and paper towels.

Re-establishing of the terrain after the portable cabins is to be done by main contractor.

4.8.2. Storage areas/ Storage yard

The location of storage areas is on the building site drawing.

The storage space for individual contractors within the total site storage area must be agreed with the management. Storage of materials in traffic areas is strictly prohibited.

4.8.2. Storage areas/ Storage yard

Main contractor establishes, maintains, secures against inclement weather and re-establishes the storage areas shown on site plan <x>.

No storage is to be place inside the building.

4.8.3. Tent workshops

Tent workshops can only be established by individual contractors to the extent shown on the site drawing.

4.8.3. Tent workshops

4.8.4. Handling of refuse and refuse containers

The individual contractors is obligated to remove 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.

4.8.4. Handling of refuse and refuse containers

Main contractor must establish, mark and empty the refuse containers during the course of the construction period and remove them once the construction period is finished.

All contractors must sort and handle building refuse in accordance with the council's regulations in this area.

Building-refuse must be sorted in the following fractions:

- Steel
- Wood
- Gypsum
- bricks

Containers and skips are placed in accordance with the building site drawing.

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

All costs in connection with removal of refuse from the containers and skips, including environmental and refuse surcharges, are to be borne by the employer

8. Scheduling

4.8.5. Lighting of portable cabin area and storage areas

4.8.6. Provisions against inclement weather in the portable cabin and storage areas

Inclement weather provisions are planned ahead of time and set into action so as to ward off the negative effects of the weather on time schedules and the quality of work.

Clearance of snow and similar work must, where possible, be done before the beginning of normal working hours.

4.8.7. Cleaning in the portable cabin and storage area.

The individual contractors are obligated to clean their respective storage areas.

If the project management's directions are not followed on this matter, the work will be done at the expense of the said contractors - - the expense being deducted from accounts owing them.

4.8.8. First Aid Post

4.8.9. Fire fighting materials

4.9. Work areas

4.9.1. 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.

The responsibility for closing these and maintaining the covers is that of contractor making the hole or rebate in the first place.

Any temporary removal of covers due to work processes by any contractor must be followed by the same contractor replacing and fixing the cover.

based on documentation of these costs.

4.8.5. Lighting of portable cabin area and storage areas

Main contractor 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.

4.8.6. Provisions against inclement weather in the portable cabin and storage areas

Main contractor is assigned the tasks in connection with inclement weather provisions in portable cabin and storage areas.

4.8.7. Cleaning in the portable cabin and storage area.

4.8.8. First Aid Post

Main contractor supplies the First Aid Box and has the responsibility of ensuring that it, at all times, has the necessary minimum content of items cf. The Factory Inspection's requirements.

The First Aid Box is situated in building management cabin and is accessible when work is being done on site.

4.8.9. Fire fighting materials

Main contractor supplies fire fighting equipment and materials.

4.9. Work areas

4.9.1. Covering of holes and rebates in work areas

8. Scheduling

4.9.2. 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.

4.9.3. Lighting in common work areas

The contractor must supply own light source during work in his own work areas.

4.9.4. 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 minimise 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.

4.9.5. Clearing-up and tidiness in work areas

It is the duties of each contractor at all times 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 co-ordinate 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.

4.10. Technical aids

4.10.1. Cranes and material lifts

4.9.2. Establishing guard railings in work areas

Main contractor sets-up, maintains and removes railings in work areas.

Individual contractors are responsible for setting up railings in their own work platforms and scaffolding, etc.

4.9.3. Lighting in common work areas

4.9.4. Provisions against inclement weather in work areas

Main contractor is assigned with the task of providing interim heating and drying-out of the building.

Main contractor is assigned with the task of clearing snow, de-icing and gritting (spreading gravel on) common work areas.

4.9.5. Clearing-up and tidiness in work areas

4.10. Technical aids

4.10.1. Cranes and material lifts

8. Scheduling

If contractors decides to use a crane and/or lift above and beyond that stated in the tender documents, they must give a written account for setting-up, power supply, use and maintenance, before the equipment (after permission for the management) is put to use.

Setting up a crane or lift must only take place with the explicit permission of the project management.

4.10.2 Personnel elevators

4.10.3. Scaffolding

Individual contractors must supply their own scaffolds in their own working areas.

Setting-up and dismantling scaffolding must be done after approval from 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 rationalising 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.

4.11. Supply to the site

4.11.1. Water and sewer

Tap points are established in accordance with the site drawings.

The individual contractors 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.

Main contractor sets-up, maintains and removes material lifts, cf. The building site drawing no. <x>. The lift will be for the free use of all contractors in the period of 01. February 2010 to 01. November 2010

Crane for free use of all contractors will not be set-up

4.10.2 Personnel elevators

Main contractor installs, maintains and removes personnel elevators cf. Building site drawing no. <x>. This elevator is for the free use of all contractors in the period 01. February 2010 to 01. November 2010.

4.10.3. Scaffolding

01. February 2010 to 01. November 2010
erects, re-builds, maintains and removes common scaffolding. Scaffolding has to apply to Br 08.

The scaffold is at the disposal of all contractors in connection with the following works:

- Re insulating and plastering external walls
- Mounting balconies
- Building penthouse
- External staircases

The scaffold will be at the disposal of contractors in the period 01. February 2010 to 15. July 2010

The project management co-ordinates the work on common scaffolding.

4.11. Supply to the site

4.11.1. Water and sewer

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

Main contractor connects-up, maintains and removes interim water- and sewage systems to common portable cabins and meeting and office units, cf. Section 4.8.1.

The supply is established with frost proofed design by Main contractor if the supply is needed in the winter period.

The employer pays for water consumption and sewage surcharges.

8. Scheduling

4.11.2. Electricity

The main electrical boards' shows on the site drawing are installed.

The individual contractors must bear the cost of connecting their own electrical material up to the main boards.

The employer cannot be held responsible for interruptions in the supply of electricity.

Each contractor must uncouple connections from his sub-board to the main board at the end of each workday.

4.11.3 Telephone

Each contractor is responsible for subscribing, paying for and operation of own phone.

4.12. Special conditions for buildings in use

4.12.1 Work conditions generally

If the localities are in use during the construction period, special consideration to them must be taken.

The following are valid if work is in progress in or around the building:

The contractor is obliged to man the project with persons who are able to show the necessary consideration to tenants/employees in the building. If a person repeatedly fails to show consideration, the project management can expel said person from the site.

Tools must be chosen so that they cause the least possible nuisance for any tenants/employees using the building with regard to noise, dust, vibration and emissions.

Radios and the like must not be used in the locality.

Access to localities in use must happen in accordance with the following rules:

All of the contractor's employees who have access to the localities in use must be furnished with identity

4.11.2. Electricity

Main contractor installs, maintains and removes the power supply for construction on behalf of all contractors.

Main contractor installs, maintains and removes the power supply to common portable cabins and meeting and office facilities, cf. Section 4.8.1.

Similar supplies to own portable cabins, material containers, etc., is the responsibility of the individual contractors.

The electricity consumption is paid by the Main contractor.

Main contractor is responsible for mandatory inspection of electrical installations shown on site drawing no. <x>.

4.11.3 Telephone

Main contractor is responsible for establishing a landline phone for emergency calls for the duration of the work on site.

4.12. Special conditions for buildings in use

4.12.1 Work conditions generally

Work must start at earliest 07:00 o'clock and must be finished by 17:00 o'clock.

8. Scheduling

cards. The contractor has an obligation to report lost ID's immediately.

Keys to dwellings must be administrated as follows: Before the work is initiated, the keys to the dwellings are collected. Tenants can, instead of handing in a key, be at home between the hours of 08:00 and 18:00.

The contractors own site manager must keep a receipt list for keys so that he can always account for who is in possession of the keys. The receipt list must be available for the project management.

Keys that are not used shall be kept in a locked security box, which in turn should be kept in a locked container. If the key gets lost, the contractor must immediately inform the tenant and the project management, and the locks in the apartment in question must be changed at the expense of the contractor.

Keys that are handed-in must not be copied.

The apartments/dwellings must, at all times, be locked - - both when work is being done on them and when the apartment is empty.

4.12.2. Information for tenants

Main contractor is responsible for administration of keys. Main contractor receives 2 sets of keys.

4.12.2. Information for tenants

The project management co-ordinates enquiries from the tenants. The project management is also responsible for informing the tenants.

Main contractor is in charge of the daily notification to tenants about access to the dwelling with regard to the current construction work.

Notice must be given in writing, by 16:00 on the day before. A copy of the notice must be delivered simultaneously to the project management.

5. Health and Safety

5.1. General information

5.1.1. Organisation

5. Health and Safety

5.1. General information

5.1.1. Organisation

The project's stakeholders are following:

Employer:

Project management: Anna Dabrowska

Safety Co-ordinator: Anna Dabrowska

Site Inspection: Sigurjón Guttormsson

Design Manager: Anita Szaflik

8. Scheduling

5.1.2. Safety Meetings

The safety coordinator convenes safety meetings and prepares the minutes. All the companies on site must be represented at the meetings by a representative for their site leadership and one from the operatives (safety rep) - - if it is required that there are safety groups on site.

Any comments to the safety meeting's minutes must be voiced at the following safety meeting. If this does not happen, the former minutes will be considered as approved.

5.2. Plan for Health and Safety

The person to whom the employer has transferred the duty of completing the Health and Safety Plan and coordinating safety work on site is named the Safety Coordinator.

The contractor 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 Factory Inspector, before work starts, is the duty of the Safety Coordinator.

Inspection of the required safety provisions is the duty of the contractor appointed to do it.

If another contractor's health and safety provisions are insufficient, the first named contractor must elevate the problem without costs to the employer. During pauses in or at the end of the works in question, the contractor must establish or re-establish the health and safety provisions so the safety requirements are fulfilled at all times.

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.

5.3. The work environment

5.1.2. Safety Meetings

Safety meetings will be held every week.

5.2. Plan for Health and Safety

The employer has transferred his obligations to complete and follow-up the Health and Safety Plan, together with his co-ordination duties, to Main contractor.

Proposal for the content of the Health and Safety Plan:

1. Plan for Health and Safety (copy of chapter 5.1 and 5.2 from BSB with contractor supplements)

2. Orientation (copy of chapter 2 from BSB with contractor supplements)

3. Time Schedule and Work Plan (new section)

4. Building Site (copy of chapter 4 from BSB with contractor supplements)

5. Work environment (copy of chapter 5.3 from BSB with contractor supplements).

6. Provisions in connection with dangerous works (copy of chapter 4 from BSB with contractor supplements)

7. The surrounding environment (copy of chapter 6 from BSB with contractor supplements)

8. readiness-, evacuation-, and exercise/drill plan (new section: Fire-fighting equipment, rescue equipment, etc)

9. Building Site Plan

5.3. The work environment

8. Scheduling

5.3.1. General information

5.3.1. General information

1. Areas where work can cause:

- Dust or other forms of air pollution
- Radiation
- High/low temperatures
- Noise
- Problems with smells

2. Areas where several types of work are performed simultaneously:

- Coordination
- Securing against unnecessary risks from work processes

3. Work tasks that can cause ergonomic strain.

- Heavy lift (carrying, push, pull, etc.)
- Awkward working positions (twisting, etc.)
- Long reaching distances
- High/low clearance height
- Long transport ways for building materials
- One-sided, repetitive and monotonous work processes

- Cramped space

4. Technical aids:

- Suitable type
- Suitable roadways
- Sufficient space conditions

5. Special requirements:

- Work processes with special requirements for instruction, directions and training, for example asbestos and cancer causing substances /neurotoxin/ allergy causing /harmful to the reproductive system.

5.3.2. Limiting noise inconvenience

The contractor must use tools that causes as little inconvenience/nuisance re noise to the user and others on the site.

For persons using noisy tools and equipment, the Factory Inspection's rules as stated in Departmental Order 801, of 4 October 1993, must be observed. This means that no persons, not even other contractors, must be exposed to noise levels over 85 dB (Airborne) - - without the use of hearing protectors. For noise levels over 80-dB (A), hearing protectors must be available.

5.3.2. Limiting noise inconvenience

5.3.3. Limiting of damage and inconvenience from 5.3.3. Limiting of damage and inconvenience from

8. Scheduling

vibrations

The contractor must choose tools that emanate the least hand-/arm vibrations, or use methods for suspending the tools so that they don't have to be handled as such. If vibrations exceed 130 dB(HA), the contractor must vibration-curb the tool or use other work methods.

5.3.4. Limiting inconvenience caused by dust

The contractor must take steps to curb and limit dust emission from its source. Direct suction should be used on tools where it is technically feasible.

5.3.5. Limiting ergonomic inconvenience

The contractor must avoid manual transport that causes lift, carrying, push, pull and similar strain on the body. He must use technical equipment for this.

5.4. Provisions to be taken against dangerous works

The respective contractors must establish specific work procedures that describe the safety aspects of the work.

The contractor must plan work that involves the use of dangerous chemical substances.

The contractor must gather and revise information about chemical substances that are used in the performance of the contract, and make sure that they are handled in accordance with the stipulations issued by the Factory Inspection. A list of the materials and substances that, under the circumstances of the technical requirements, give the least possible strain on the work environment – and considerations to substitution -- must be documented for the project management.

The directions for use of for products must be accessible on site. There must be personal protection gear at the disposal of operatives as described in The Directions for Employers.

6. The surrounding environment

6.1. General information

6.2 Noise

vibrations

5.3.4. Limiting inconvenience caused by dust

5.3.5. Limiting ergonomic inconvenience

5.4. Provisions to be taken against dangerous works

6. The surrounding environment

6.1. General information

6.2 Noise

The working area should be quiet before 7 am and after 17 pm

8. Scheduling

6.3. Vibration

6.4. Dust

6.5. Emissions to the atmosphere

7. Quality Assurance

7.1. General information

7.2. Project management

The employer will carry out inspections independent of the contractor's control.

7.2.1 Site meetings

Site meetings will be held on at a fixed time and day of the week.

Any comments to the minutes of the site meetings must be put forward at the following meeting, otherwise the minutes will be considered approved.

7.2.2. "Kick-off" meetings

A kick-off meeting is held before the start of works

7.3. Quality Plan

It is the task of the contractor to establish a quality plan.

The Quality Plan must comprise the following subjects:

- Organisation of the contract
- Control of documents
- Control of purchases
- Qualifications
- Process scrutiny
- Control Plans
- Demands to subcontractors and suppliers
- Processing mistakes and shortcomings in materials and work processes (rejections)
- Processing deviance from project documents.

6.3. Vibration

6.4. Dust

Any threshold values for dust mission, outside the boundaries of the site is forbidden

6.5. Emissions to the atmosphere

7.1. General information

7.2. Project management

7.2.1 Site meetings

7.2.2. "Kick-off" meetings

The time and date for the kick-off meeting is agreed with the project management.

7.3. Quality Plan

At latest 15 workdays after the work being awarded the contractor, he/she must send the Quality Plan to the project management.

At latest 10 workdays after the working-in revisions to the Quality Plan, the contractor must send the revised Quality Plan to the project management.

8. Scheduling

7.4 The contractor's control and documentation

7.4.1. General information

Control and documentation is part of the contractor's services.

The contractor must ensure that:

- a) running quality control of the works and deliveries is done
- b) produce documentation that the control has been performed and the specified quality demands have been achieved.

Where the supplier of deliveries to the contract is a member of a public approved quality control system, it is considered sufficient to specify the type of control system in the work specifications.

If the project management evaluates that control and/or documentation should be extended, because of failure or mistakes in the works, the contractor must follow this request without cost to the employer.

The contractor must keep quality assurance and O&M-documentation separate during implementation and at handing over.

7.4.2. Documentation of quality

The control activities of the control plan must be documented and demanded. Documentation must be accessible for the project management during the construction process. Documentation includes sub-works and supplies from subcontractors and suppliers.

7.4.3. Operation and Maintenance documentation (O&M)

The contractor must deliver information about materials and components, used in the contract, for aiding the working-up of the operational plan for the building. This must include amounts and times for the materials, etc. used and built-into the construction as described in the work specifications.

7.4.4. Archiving the documentation

The contractor must immediately establish a systematic archive system and maintain it for the duration of the project. The system must include all the documentation that comes in during the project regarding quality of materials, equipment, construction, and prefab components and the qualifications of the staff who may be required to

7.4 The contractor's control and documentation

7.4.1. General information

7.4.2. Documentation of quality

7.4.3. Operation and Maintenance documentation (O&M)

7.4.4. Archiving the documentation

8. Scheduling

have special qualifications.

7.4.5. Management of the performance documentation

The contractor must establish an archive system for identification and steering of performance documents and alterations/supplements to these.

The system must also include documents of the subcontractors.

The system must minimum have the following elements:

Registration of valid documents

The list should be able to be altered and the alterations should be registered.

The lists must be sent to all document users.

A procedure must be agreed as to how alterations are marked in documents and how the documents and their alterations are identified.

7. 5 Project preview

The contractor must participate in “project preview” before construction start under the chairmanship of the project management.

Before the process of project preview, contractors must thoroughly go through all the project documents, drawings, etc., and make a detailed study of the processes necessary to implement the plans. This result must be available in writing.

Before the process of project preview, contractors must evaluate how they will use their resources and other production apparatus to execute the work.

During project preview, the designers will report on conditions, which will require special care in execution because these may deviate from ordinary practice and require special control procedures.

Project preview does not alter the distribution of responsibility and risk between employer and contractor, not even if it results in alterations to the project.

The project management will convene the “project preview” process and work out an agenda and do the minutes of the meeting.

The purpose of the project preview is, through dialogue between contractor and the designers, to:

7.4.5. Management of the performance documentation

7. 5 Project preview

8. Scheduling

- Utilise the contractors trade abilities better
- To uncover aspects that may be risky or lead to failure and be difficult to execute.
- To solve interpretation problems in the project
- To discuss possible adjustment to the control plan
- To review the Health and Safety plan and review questions about the environment.

Basis specification

7.6. Local authority inspection

7.7. Guarantee

If it is required that a special guarantee is given for a service, the contractor must notify the project management as soon as the guarantee is available.

7.8. Handing over

When the work is reported finished to the project management, the contractor must deliver the required copies of quality assurance- and O&M- documentation for the completed works.

7.9. Quality Assurance after handing over

The contractor's repair of shortcomings after handing over is subject to the same conditions for quality assurance as the other, original services.

The contractor hands over the quality assurance documentation for repair of shortcomings, to the project management, after the handing over procedure for the repair work on the shortcomings.

8. Scheduling

8.1. General Information

8.2. Time Schedule

The tender document's time schedule shows the different contracts' start and end dates and main site based activities.

After accept, the contractor is obligated to participate in working up a detailed work schedule for the project on site within the main timeframe stated in the tender document's time schedule.

Project specific specification

7.6. Local authority inspection

7.7. Guarantee

The guarantee must be furnished at latest 20 workdays after the works in question are completed or the delivery is delivered.

7.8. Handing over

Quality- and control documentation must be delivered in 3 copies.

7.9. Quality Assurance after handing over

8. Scheduling

8.1. General Information

8.2. Time Schedule

The contractor's activity and work time schedule must be sent to the project management by 15 workdays after the contract has been signed.

8. Scheduling

For individual trade contracts, the project management will hold up the individual trade contractors' proposal for their detailed schedules and put them together into a complete schedule for the whole project.

When deviations appear on the critical path, the contractors must participate in the revision of the time schedule.

8.3 Inclement weather

Extensions to milestones are given in cases where unusual inclement weather warrant it, under the following conditions:

- Inclement weather must have resulted in the work lying still – or being reduced in tempo, equivalent to minimum ½-workday.
- The activity must be on the critical path of the time schedule for the penalty-bearing milestone in question.
- The total numbers of inclement weather days for the activity in question must, within a month, exceed the expected number of inclement weather days.

8.3 Inclement weather

We recommended the use of a form with the anticipated number of inclement weather days as stated on page 19 of *Directions for Inclement Weather* (*Vejledning om vinterbyggeri, Byggeog Boligstyrelsen, oktober 1995*).