



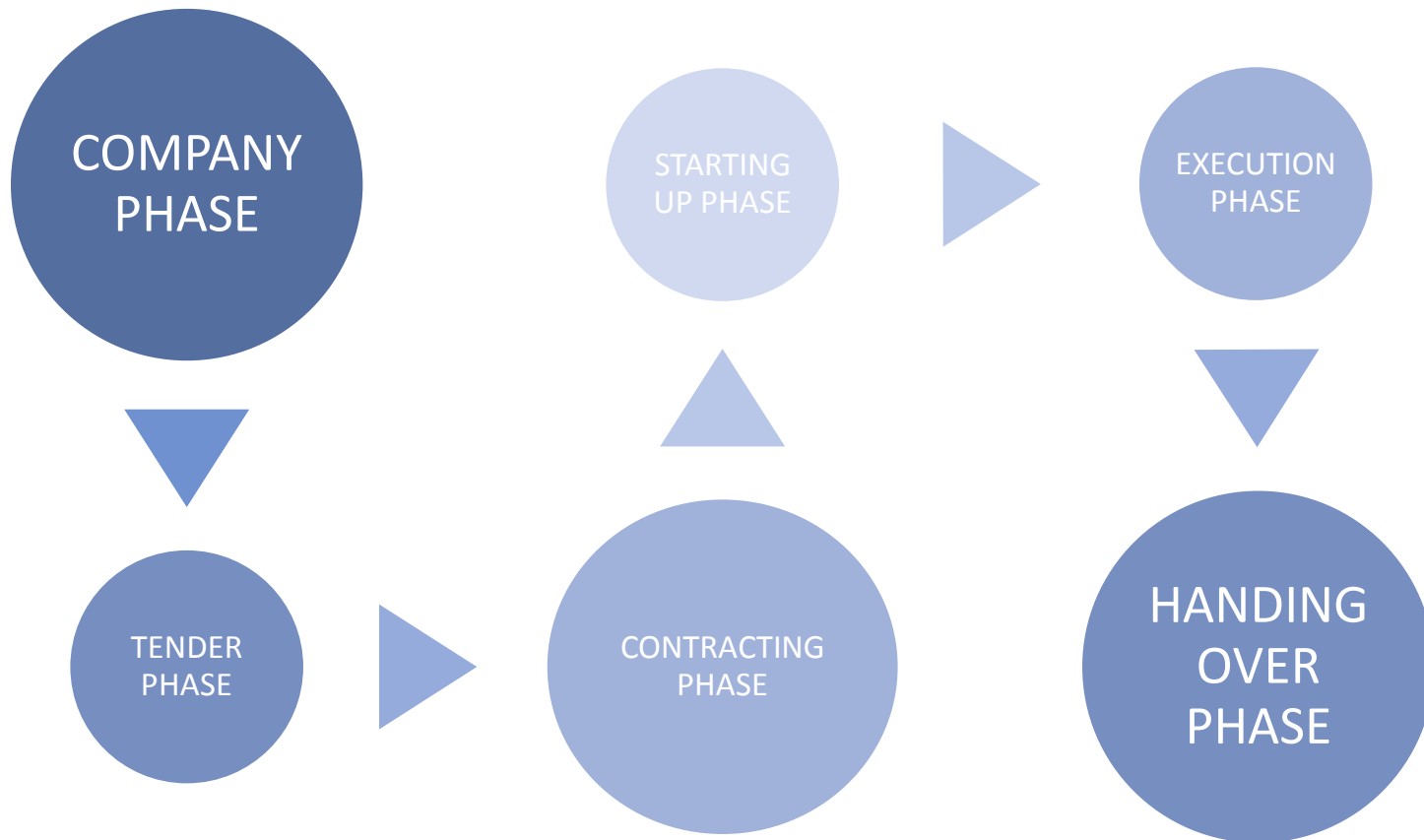
# FINAL PROJECT 7TH SEMESTER ARCHITECTURAL TECHNOLOGY AND CONSTRUCTION MANAGEMENT

PROJECT:

Vejlevej 19  
Offices Building

María García Lloris

# CONSTRUCTION PHASES



# COMPANY PHASE

## ORGANIZATION AND MANAGEMENT

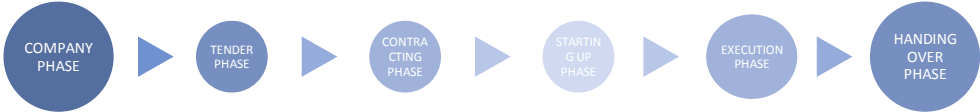
### CONTRACT FORMS

	Individual Trade contract	Trade contract	Main contract	Turnkey contract
The building owner has entered into a contract with	Each Individual Trade contractor and the consultant of the project.	Each Trade contractor and the consultant of the project. The Trade contractor has made a contract with several of the Individual Trade contractors.	The Main contractor and the consultant of the project. The Main contractor has made a contract with all individual trade contractors.	The turnkey contractor. The turnkey contractor has made a contract with all specialist contractors and the project planners.
Organisation	Each Individual Trade contractor reports to the building management who reports to the building owner.	Each Trade contractor reports to the building management who reports to the building owner.	The Main contractor reports to the building management who reports to the building owner.	The turnkey contractor has the building management and reports to the building owner. Project planners and individual trade contractors report to the turnkey contractor.
The building management	The building management, who co-ordinates the Individual Trade contracts, is not included in the tender price.	The building management, who co-ordinates the construction contracts, is not included in the tender price.	The Main contractor is responsible for the building management and the building management is therefore included in the tender price.	The turnkey contractor is responsible for the building management and the building management is therefore included in the tender price.
Participants at building meetings	All contractors and the expert supervision		The Main contractor and the expert supervision	The turnkey contractor and counsellors of the building owner if required
Tender form	Public or restricted procedure			Restricted procedure
Implementation/ tender documents	Made by the consultant and paid as a separate fee			Made by counsellors in cooperation with project implementers. Included in the total tender amount and contract.

### COMPANY HANDBOOK

MGL. BUILDING COMPANY

### ORGANIZATION CHART



# COMPANY PHASE

## HEALTH AND SAFETY MANAGEMENT

MGL building company

Environment and safety handbook

## ENVIRONMENT AND SAFETY HANDBOOK

## QUALITY ASSURANCE

Quality Assurance Plan and Environmental and Working Environment Control

Project specific QA plan

## QUALITY ASSURANCE PLAN

MGL building company

Quality Assurance Handbook- and Environmental Handbook for large Contractors

## QUALITY AND ENVIRONMENTAL HANDBOOK

## EMPLOYMENT CONDITIONS

**dansk bygger**  The Danish Construction Association and the BAT cartel

**Ansættelsesbrev/Employee contract**

Between: **Ansættelsesbrev/Employee contract** and **Ansættelsesbrev/Employee contract**

PersonName: \_\_\_\_\_, born: \_\_\_\_\_, address: \_\_\_\_\_, telephone: \_\_\_\_\_, email: \_\_\_\_\_

Company: \_\_\_\_\_, address: \_\_\_\_\_, telephone: \_\_\_\_\_, email: \_\_\_\_\_

Contract type: \_\_\_\_\_, start date: \_\_\_\_\_, end date: \_\_\_\_\_

Employer: \_\_\_\_\_, employee: \_\_\_\_\_

## EMPLOYMENT CONTRACT

Handbook  
For project and construction management

Name: Jesper Gærdle CPR nr.: 111111-1999  
Address: Chr. M. Østergaards vej. 22

We regret to inform that you are with the point of termination notice to resign from your job by the end of workday: \_\_\_\_\_

## DISMISSAL LETTER

## FINANCIAL ASPECTS

Budget: Name of the company			
Number of workers	15	Contribution margin	15%
Manhours / year / man	1550		
Hours / man / year	23256		
Costprice / man / hour	259.03	Coming from calculation of hourly wage.	
	Tus. kr.	Tus. kr.	% off turnover
Turnover		36731	100
Wages	6024		16
Materials	7530		21
Sub contractors	15060		41
Machinery	1506		4
Total variable costs		30120	82
Margin in thousand Kr.		6612	
			18
Capacity costs	9%	3306	9
Earning margin		3306	9
Depreciation (capital invested)	1%	367	1
Running result		2939	8
Interests		25	0
Netproceeds	33132	2914	8

## CALCULATIN OF CONTRIBUTION MARGIN

COMPANY PHASE

TENDER PHASE

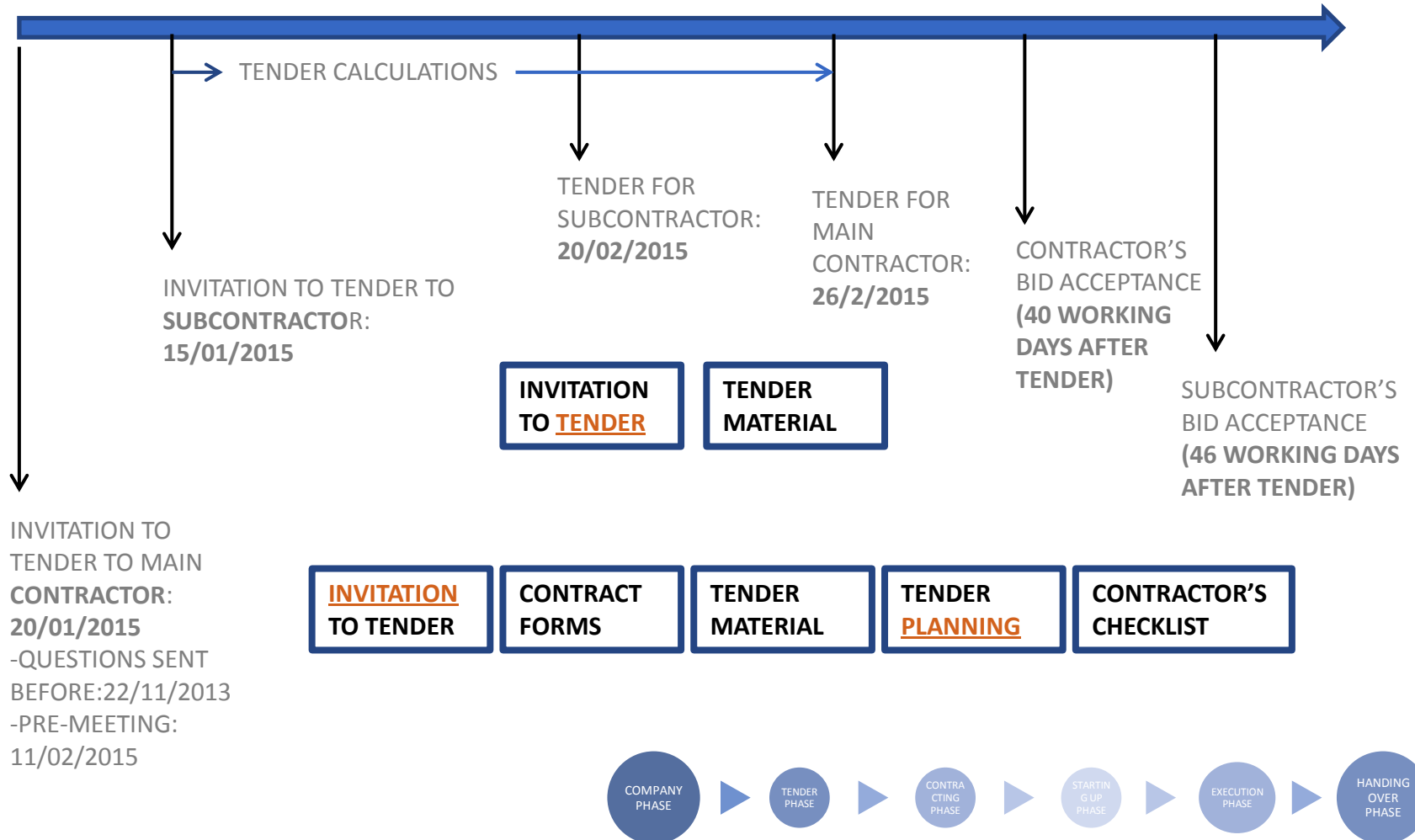
CONTRACTING PHASE

STARTING UP PHASE

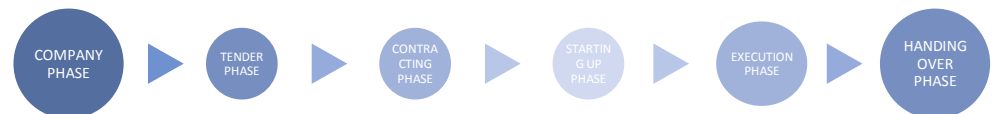
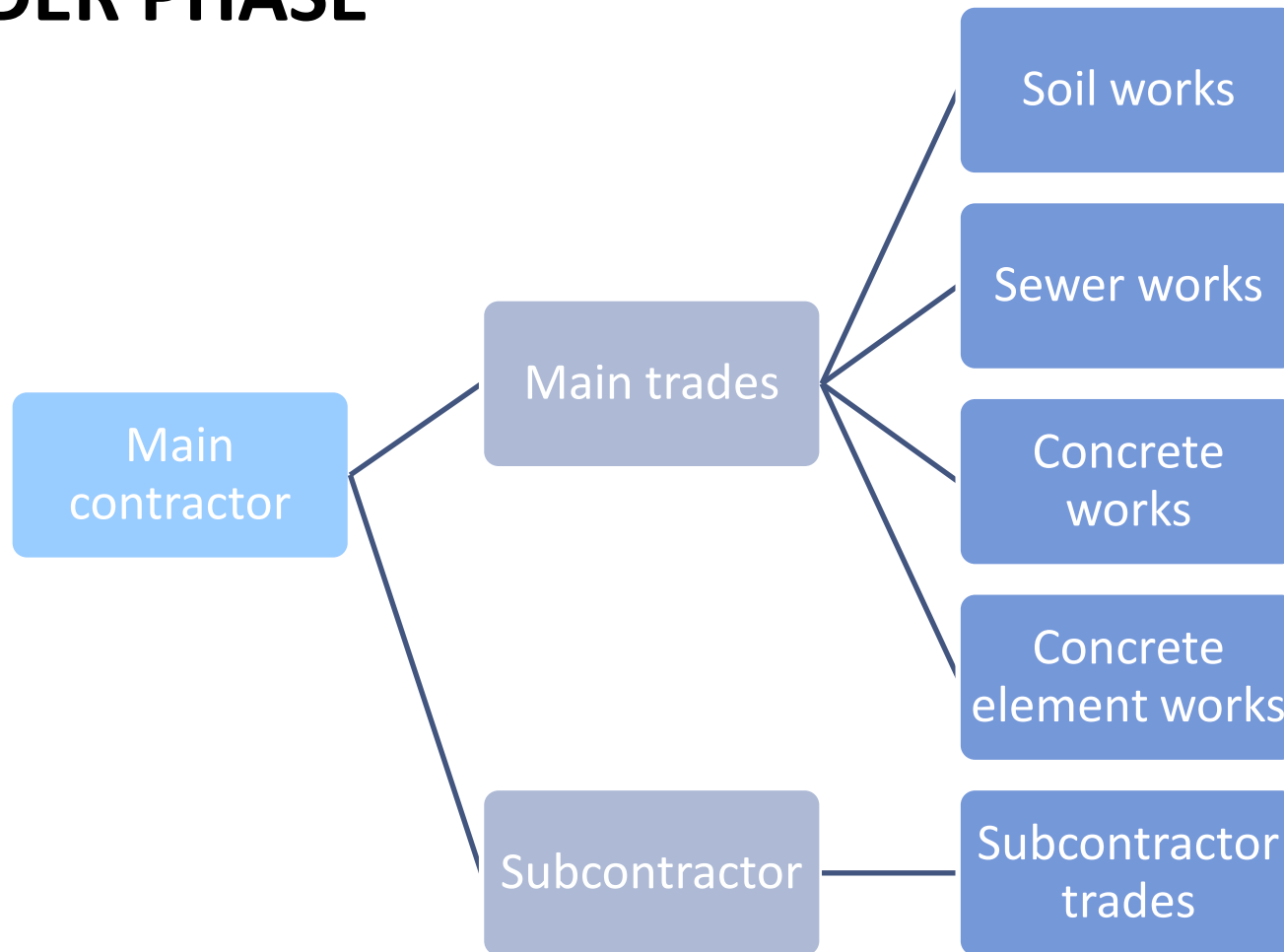
EXECUTION PHASE

HANDING OVER PHASE

# TENDER PHASE



# TENDER PHASE



## TRADE CALCULATION:

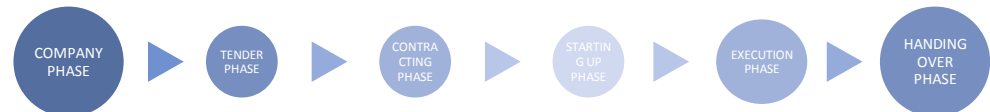
### 1. SOIL WORKS

[illegible]

Machine hour calculation: Excavation foundation				Calculation of transport			
Number of m3 to be moved in solid measure				Choice of vehicle: Mercedes-Benz 2538			
Bucket size				Max load per vehicle: 20000 kg			
Choice of Machine: CAT 336D 1				Max number of trucks: 18,00 m3			
1				Do not exceed the maximum payload: 33,300			
PUS m3:				Do not exceed the maximum payload:			
Text	Formel	Quantity	Unit	Text	Formel	Quantity	Unit
Bucket size		3,00 m³		Max. Weight		33,300 kg	
		2514 m³		Distance to tip		5 km	
Density		1850 kg/m³		Speed		40 km/h	
Efficiency		0,6 Factor		Max volume	(time weight/density)/loadfactor	18,00 m³	
Cycle time		20 Sec		Drivingtime total	(Distance/30min)/average speed	15,00 min	
Loading factor	0,8	0,8 Factor		Max (volume/weight)/payload(m³)		4,00 min	
Bucket factor		1 Factor		Unloading time		1,00 min	
				Maneuvertime		1,50 min	
Production	(Bucketsize*Efficiency*time)	259,20 m³/time		Circulationtime	(Loadingtime+drivingtime+maneuver+unload)	21,00 min	
	*Efficiency "Variable"			Lorry production	(hourly production)/max volume	49,00 m³/h	
				Number of trucks		5,0	
Machine total		0 Machine		Machine total		5,0 Machine	

[illegible]

## SOIL CALCULATION

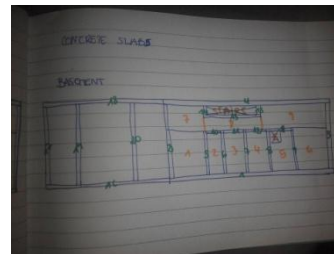


# TENDER PHASE

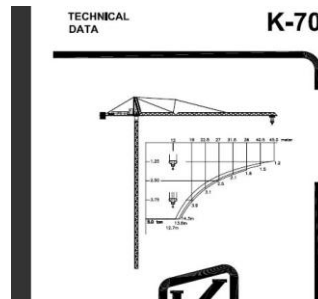
## TRADE CALCULATION: 3.CONCRETE WORKS

TRADE  
CALCULATIONS  
2. SEWER  
WORKS

TRADE  
CALCULATIONS  
4. ELEMENT  
WORKS



WORKING ZONES



CRANE ANALYSIS

CALCULATION OF  
QUANTITIES

CALCULATION OF  
MANHOURS

DKK

PRICES

CONCRETE  
CALCULATION

COMPANY  
PHASE

TENDER  
PHASE

CONTRACTING  
PHASE

STARTING  
UP  
PHASE

EXECUTION  
PHASE

HANDING  
OVER  
PHASE

# TENDER PHASE

## MAIN CONTRACTOR CALCULATION:

[illegible]

## MAIN CONTRACTOR CALCULATION

[illegible]

## BIDDING LIST

Checklist before tender

Before tender you have to check the following:

### Checklist:

The non-hour and the client's time schedule.  
The material. Check up to date prices.  
How many workers?

Subcontractors

**Reservations/Responsibility:**  
Are the subcontractors bids filled out correctly?  
CM added to the price.

Site center:

Management cost (manager, foreman)  
 Rigging/Unrigging costs  
 Transport inter/extern  
 Waste operations

margin: What about the risk?  
CM in %  
Profit  
Interest  
Financial costs

Sales price

Check the main number:

The Bible

Control the fiscal bid  
Fill out on every line  
Write your signature on all pages  
Changes/reservations must be submitted on the front page  
Reservations must be in the same order

The final

be in an envelope showing group number, time, place for the  
of the company etc.

# TENDER

## CHECKLIST BEFORE TENDER

**40 WORKING  
DAYS AFTER  
TENDER**

REJECTION → REJECTION LETTER

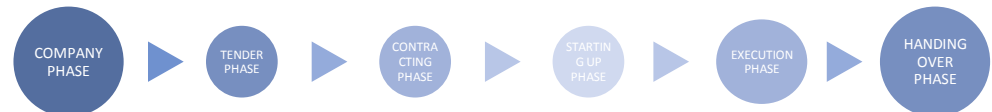
**ACCEPTANCE  
MAIN  
CONTRACTOR'S  
BID**

## INVITATION TO NEGOCIATING MEETING

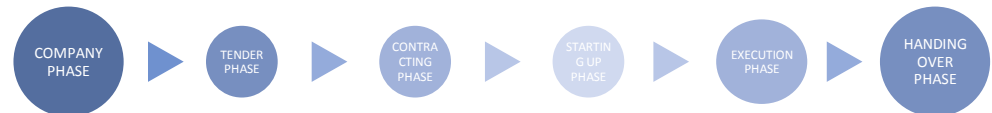
## CONTRACT

## SUBCONTRACTOR'S BID REJECTION

**ACCEPTANCE  
SUBCONTRACTOR'S BID:  
INVITATION TO NEGOTIATING  
MEETING AND POSSIBLE  
CONTRACT**

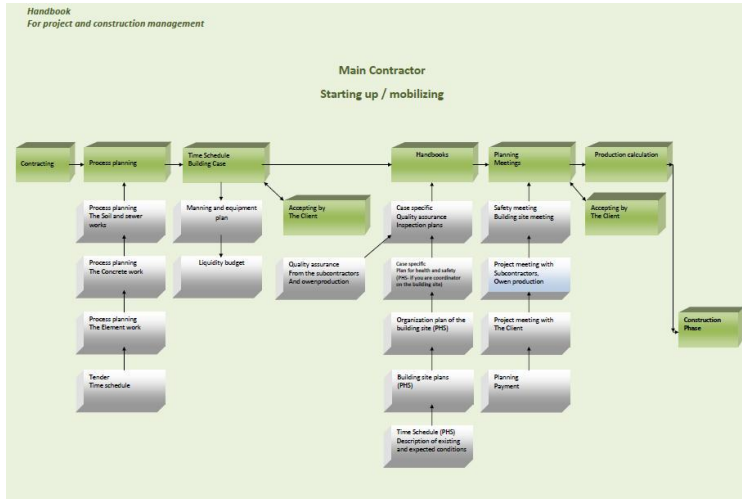


# CONTRACTING PHASE



# STARTING UP PHASE

## MAIN CONTRACTOR:



## NOTIFICATION TO WORK INSPECTION

## FINANTIAL ASPECTS:

-LIQUIDITY BUDGET

-INTERIM CERTIFICATES

## PLANNING:

-GENERAL PLAN

-MANNING PLAN

-MACHINERY PLAN

## QUALITY ASSURANCE:

-QA HANDBOOK

## HEALTH AND SAFETY:

-B.SITE PLAN

-EMERGENCIES NUMBERS

## MEETINGS:

-AGENDA

-INVITATION TO SECURITY

-RESUME OF SECURITY

COMPANY  
PHASE

TENDER  
PHASE

CONTRACTING  
PHASE

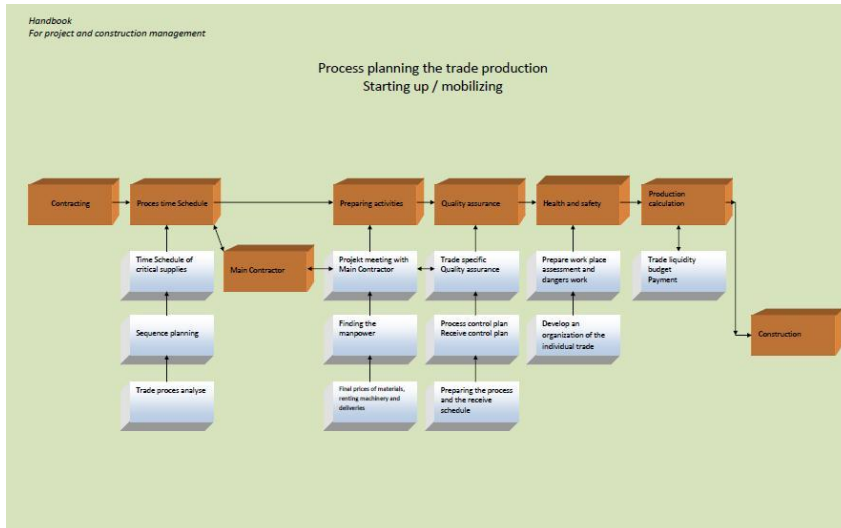
STARTING UP  
PHASE

EXECUTION  
PHASE

HANDING  
OVER  
PHASE

# EXECUTION PHASE

## TRADE CONTRACTOR:



## PLANNING:

-3 WEEK PLAN CONCRETE WORKS

## HEALTH AND SAFETY:

-WORK PLACE ASSESSMENT

## FINANTIAL ASPECTS:

-LIQUIDITY BUDGET

-INTERIM CERTIFICATES

COMPANY  
PHASE

TENDER  
PHASE

CONTRACTING  
PHASE

STARTING  
UP  
PHASE

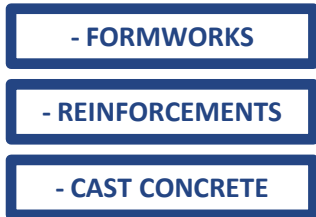
EXECUTION  
PHASE

HANDING  
OVER  
PHASE

# EXECUTION PHASE

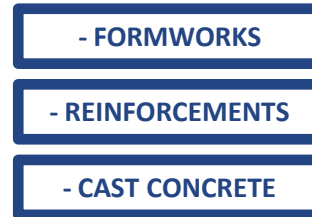
## CONTROL DOCUMENTS DURING CONCRETE WORKS

### PROCESS CONTROL



← PROCESS CONTROLPLAN

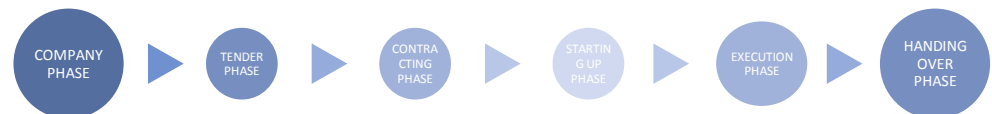
### RECEIVE CONTROL



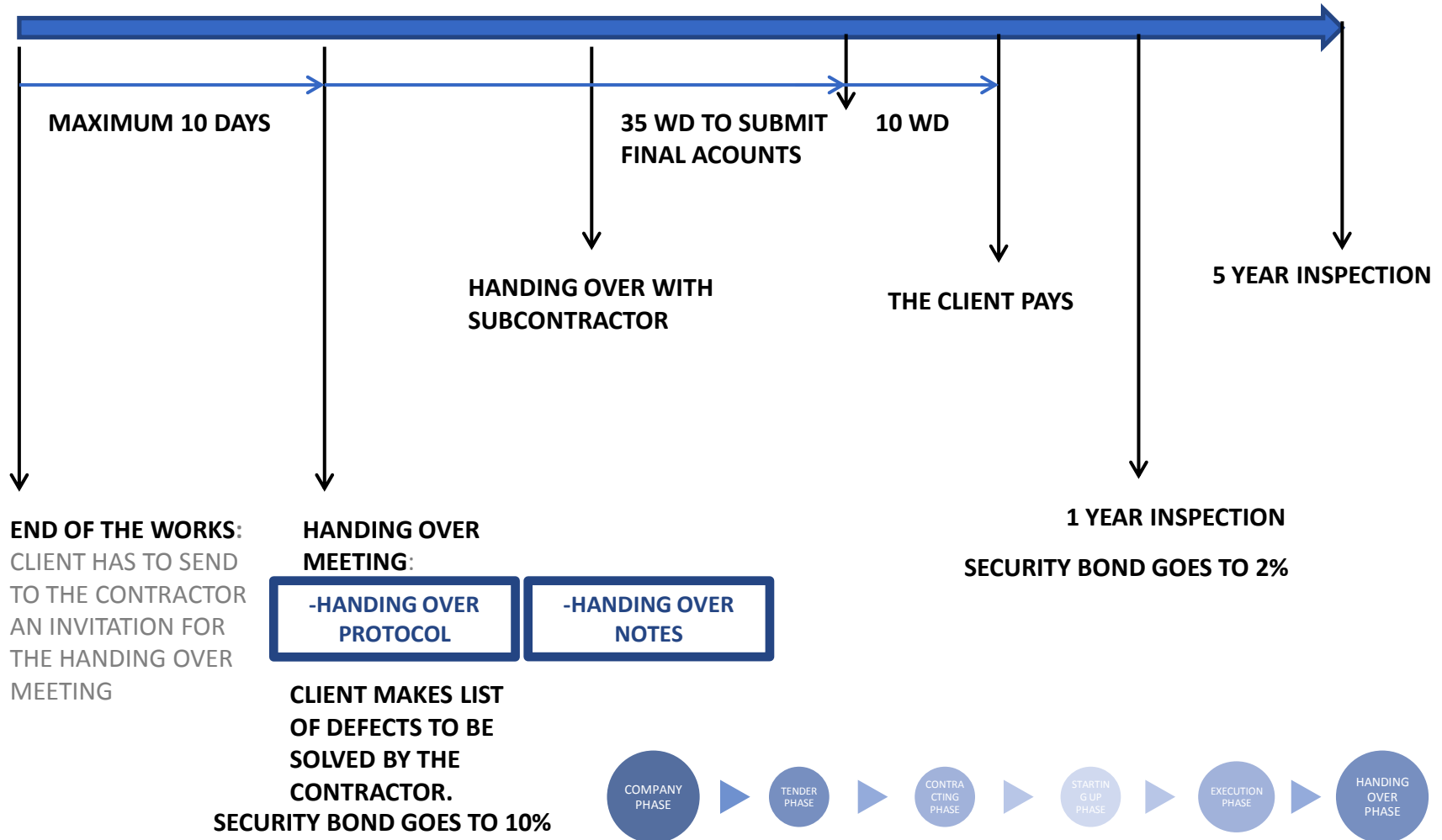
← RECEIVE CONTROLPLAN



### OTHER DOCUMENTS:



# HANDING OVER PHASE



**TAK FOR JERES OPMÆRKSOMHEDEN.**