

WALL POS. SE2W07
 GRID S.4-U.8/S.g
 h=25cm, C30/37 & C50/60, C_v=3cm
 SCALE 1:25

WALL POS. SE2W07
 GRID S.4-U.8/S.g
 h=25cm, C30/37, C_vinside=6cm, C_voutside=3cm
 SCALE 1:25

SECTION 1-1
 SCALE 1:25

SECTION 2-2
 SCALE 1:25

Minimum values of the bending rod diameter D _{min} for bending bars once	
Normal concrete	High-strength concrete
Bar Diameter d	Bar Diameter d
< 20 mm	> 20 mm
> 20 mm	> 30 mm
> 30 mm	> 40 mm
> 40 mm	> 50 mm
> 50 mm	> 60 mm
> 60 mm	> 70 mm
> 70 mm	> 80 mm
> 80 mm	> 90 mm
> 90 mm	> 100 mm
> 100 mm	> 110 mm
> 110 mm	> 120 mm
> 120 mm	> 130 mm
> 130 mm	> 140 mm
> 140 mm	> 150 mm
> 150 mm	> 160 mm
> 160 mm	> 170 mm
> 170 mm	> 180 mm
> 180 mm	> 190 mm
> 190 mm	> 200 mm

Component	Alignment	Concrete	Exposure Classes	f _{yk} [N/mm ²]		f _{tdk} [N/mm ²]		Minimum reinforcement ratio
				f _{yk}	f _{tdk}	f _{yk}	f _{tdk}	
Roofing	Top	C30/37	XC3	20	15	35	35	WF
Roofing	Bottom	C30/37	XC1	10	10	20	20	WO
Slab above floors	Top	C30/37	XC1	10	10	20	20	WO
Slab above floors	Bottom	C30/37	XC1	10	10	20	20	WO
Slab above underground parking	Top	C30/37	XC3	20	15	35	35	WF
Slab above underground parking	Bottom	C30/37	XC1	10	10	20	20	WO
Stairs	Top/Bottom	C30/37	XC1	10	10	20	20	WO
Walls / Columns	Inside	C30/37	XC1	10	10	20	20	WO
Walls / Columns	Outside	(WP)	XC1	10	10	20	20	WO
Walls / Columns	Outside	WP	XC2, XF1	20	15	35	35	WF
Walls / Columns	Outside	WP	XC3, XF2	20	15	35	35	WF
Bottom plate under basement	Top	C30/37-C30/45	XC1	10	10	20	20	WO
Bottom plate under basement	Bottom	WP	XC2, XA1, XF1	15-20	15	30-35	35	WF
Bottom plate under parking	Top	C30/37-C30/45	XC3, XA1, XF1	40	15	35	35	WF
Bottom plate under parking	Bottom	WP	XC2, XA1, XF1	15-20	15	30-35	35	WF
Ramps	Top	C30/45	XC3, XA1, XF2	40	15	35	35	WF
Ramps	Bottom	WP	XC3, XF1	20	15	35	35	WF
Elevator pits	Inside	C30/37	XC1	10	10	20	20	WO
Elevator pits	Outside	WP	XC2, XA1, XF1	15	15	30	30	WF
Steel grade	B 500 A							

A coefficient of friction μ=0.05 was used to determine the steel with binding reinforcement of the floor slab and a concrete with low strength development was assumed f_{yk} = 0.5 · f_{yk} (see EN 12518, which requires around 70% of the tensile strength after 7 days at +20°C to 30°C, see EN 12518, for steel reinforcement). The average strength development of the concrete is assumed to be the other component μ₁ = 0.25 (see EN 12518).

General notes:

- All dimensions are given in millimeters unless otherwise specified.
- All dimensions of the reinforcement bars are given in millimeters.
- All dimensions of the reinforcement bars are given in millimeters.
- The specified concrete covers must be observed. The reinforcement must be installed in such a way that its position is secured.
- The reinforcement is installed according to EN 12518 and EN 12518-2 for the other components μ₁ = 0.25 (see EN 12518).
- The reinforcement is installed according to EN 12518 and EN 12518-2 for the other components μ₁ = 0.25 (see EN 12518).

Abbreviation

V.S. - Vertical starter	Str. - Stimpf
H.S. - Horizontal starter	M.S. - Mounting spacer
Top - Top layer	C.J. - Construction joint
Bot. - Bottom layer	WS. - Waterstop
Add. - Additional reinforcement	WP - Waterproof

Legend:

- Index cloud
- Clearing cloud

MATERIALS/COMPONENT

Reinforced concrete	Masonry
Unreinforced concrete	Non-load bearing walls
Precast elements	Upper reinforced concrete components
Construction joint	

Related plans:

Reinforcement plans number:
 HMO_TWP_7_BW_02_SX_001
 HMO_TWP_7_BW_02_SX_010

REV.	DESCRIPTION	DATE
1	First delivery	23.09.2020
2	Approval with comments	25.09.2020
3	The walls of 3rd floor changing into masonry concrete. Checking the clouds	25.09.2020
4	Approval with comments	05.10.2020

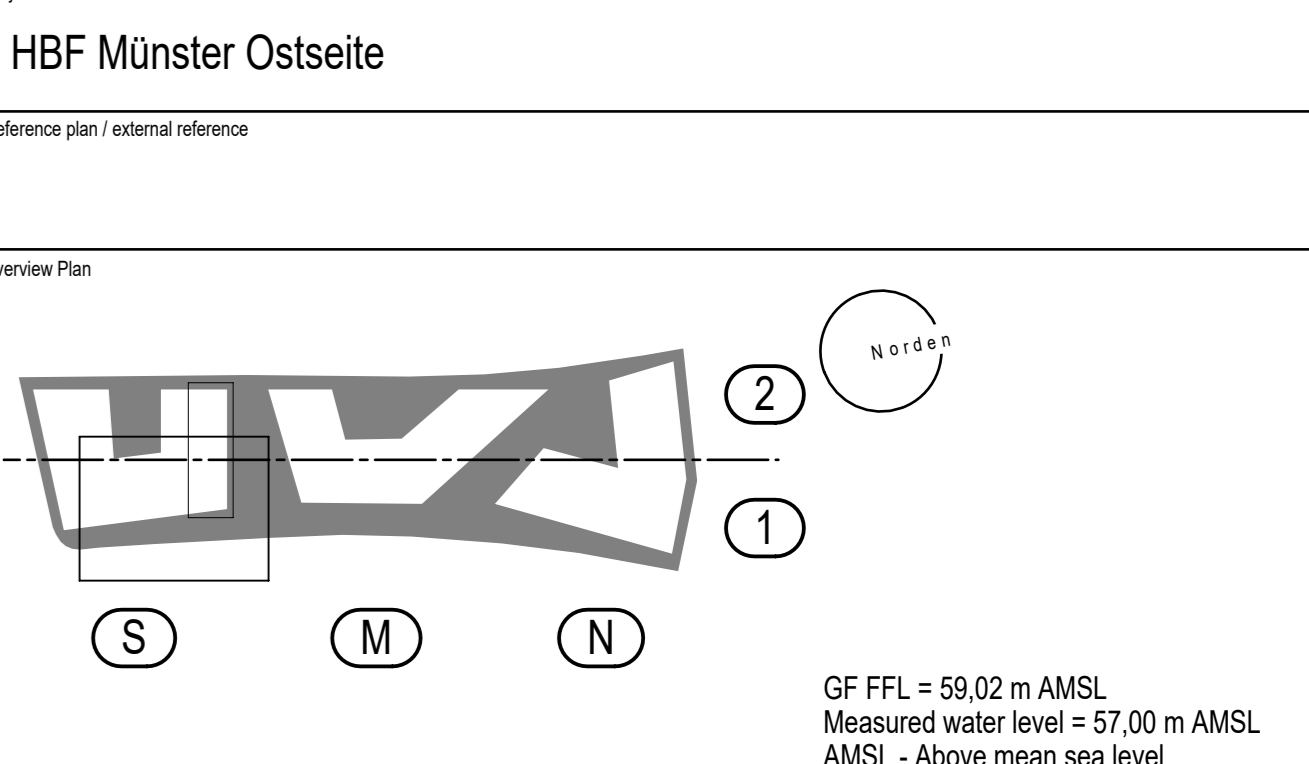
Proj.	Stage	Phase	Type	Level	Component	Plan number	Index	Status
HMO	TWP	7	BW	BW	SX	603	4	F

EXECUTION PLANNING

Project: HBF Münster Ostseite

Reference plan / external reference:

Overview Plan:

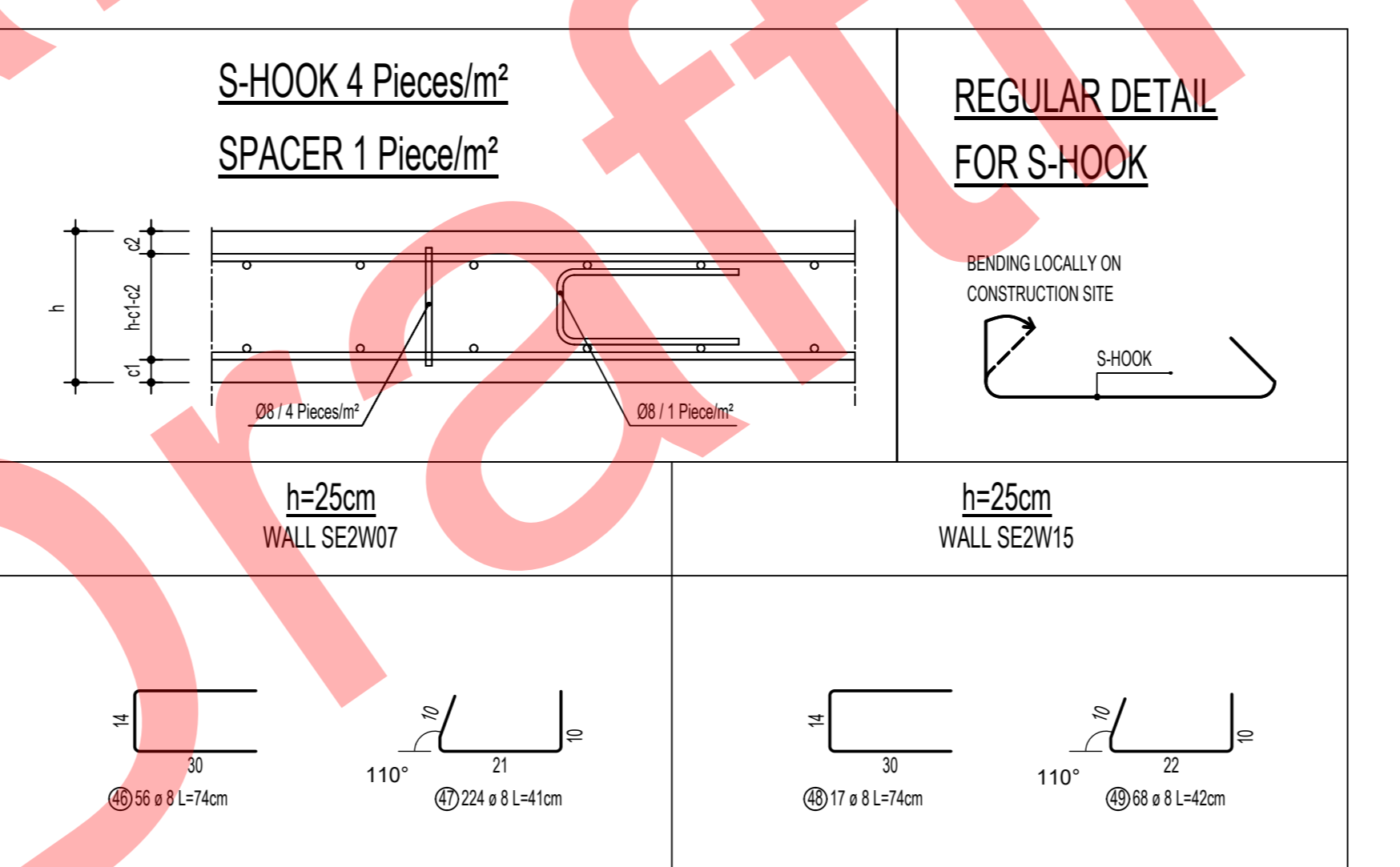


Plan number: HMO_TWP_7_BW_02_SX_001_4
 Date: 22.09.2020
 Scale: 1:50
 Author: HMO_TWP_7_BW_02_SX_001_4
 Rev: 4

SECTION A-A
 SCALE 1:25

SECTION 3-3
 SCALE 1:25

OVERVIEW PLAN
 SCALE 1:200



DETAIL 1-A
 SCALE 1:10

DETAIL 1-B
 SCALE 1:10

SECTION 4-4
 SCALE 1:10

SECTION C-C
 SCALE 1:10

WALL POS. SE2W15
 GRID S.g-S.f/S.4
 h=25cm, C50/60, C_v=2.5cm
 SCALE 1:25

SECTION B-B
 SCALE 1:25

OVERLAPPING LENGTH OF WALLS AND COLUMNS REINFORCEMENT

l _{ov} [mm]	l _{ov} [E]	C30/37		C50/60	
		Compression	Tension	Compression	Tension
8	1.4	30	40	20	30
10	1.4	40	50	25	35
12	1.4	45	60	35	45
14	1.4	55	75	40	55
16	1.4	60	120	45	85
20	2.0	75	145	55	105
25	2.0	90	180	65	130
28	2.0	100	200	75	145

POS	HDB	Pieces
E1	HDB-14/15-2/300 (75/150/75)	5

