PROVINCIA AUTONOMA DI TRENTO

SERVIZIO PREVENZIONE RISCHI

UFFICIO PIANIFICAZIONE E LAVORI DI PROTEZIONE CIVILE

LAVORI DI SOMMA URGENZA

INTERVENTO PER LA DEMOLIZIONE DI UN AMMASSO ROCCIOSO
A MONTE DELL' ABITATO DI MORI IN LOCALITA' MONTALBANO

CALCOLI STATICI RINFORZO MURO STRADA DI ACCESSO

13

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Data, giugno 2016

Agg.to ---

1 PREMESSA

La presente relazione è parte integrante del progetto ed ha lo scopo di dimensionare la berlinese di micropali ed il banchettone per il rinforzo del muro esistente sulla strada di accesso al cantiere.

I dati geotecnici di progetto sono stati ricavati dagli studi geologici antecedenti al progetto esecutivo, in dettaglio:

- "Relazione approfondimento geologico su un diedro roccioso a monte dell'eremo di Montalbano a Mori" redatta dal geologo Giacomo Nardin nell'aprile 2016 e commissionata dal Comune di Mori;
- "studio geologico finalizzato alla mitigazione del pericolo di caduta massi sull'abitato di Mori – intervento in somma urgenza – Comune di Mori – analisi della variante alla posizione del vallo-tomo" redatta dal Servizio Geologico della P.A.T.nel giugno 2016 a seguito della variazione dell'ubicazione del vallo-tomo.

Gli elaborati grafici allegati alla presente relazione, che consentono di prendere visione dei dettagli costruttivi della berlinese sono gli allegati di progetto:

- 11_Planimetria rinforzo muro di accesso strada di cantiere
- 12_Particolari rinforzo muro di accesso strada di cantiere

Riferimenti normativi

L.P. 26/93 e ss.mm.	Norme in materia di lavori pubblici di interesse provinciale e per la trasparenza negli appalti.
D.Lgs. 50/2016	Codice dei contratti pubblici.
D.P.R. 5 ottobre 2010 n. 207	Regolamento di attuazione
D.M. 14 gennaio 2008	Norme tecniche per le costruzioni
Eurocodice 7 – EN 1997-1	La progettazione geotecnica

2 CARATTERISTICHE DELLA BERLINESE IN MICROPALI

Il muro esistente in malta e pietrame vine consolidato con l'infissione nel terreno a monte dello stesso di una berlinese a cavallotto (puntone – tirante) con le seguenti caratteristiche.

- PARATIA DI MICROPALI diametro 220 mm armati con profilati in acciaio S 355 H diametro 168.3 mm spessore 7,1 mm posti ad interasse 0,5 m - cavallotto inclinato di 30° e interasse 2,0 metri.

La paratia è suddivisa in due tratte:

- TRATTA A con sviluppo lineare pari a 6 metri e caratterizzata da micropali verticali con lunghezza di 5 metri e micropali inclinati con lunghezza di 8 metri;
- TRATTA B con sviluppo lineare pari a 13 metri e caratterizzata da micropali verticali con lunghezza di 7 metri e micropali inclinati con lunghezza di 8 metri.

Le verifiche delle opere in progetto sono state eseguite con il metodo degli stati limite secondo i dettami delle nuove "Norme Tecniche per le Costruzioni (D.M. 14 gennaio 2008) e relative circolari.
Anche la scelta dei materiali risulta conforme a quanto contenuto nel nuovo Testo Unico. Nel dettaglio si farà riferimento ai materiali ed qalle relative caratteristiche meccaniche nel seguito elencate:

Calcestruzzo per cordoli, pali

- CALCESTRUZZO C25/30
- resistenza cubica di calcolo $R_{ck} \geq 30$ MPa
- resistenza cilindrica a 28 gg $f_{ck} = 24{,}90$ MPa
- modulo di elasticità $E_{ck} = 31447$ MPa
- resistenza caratteristica di calcolo SLU $f_{cd} = R_{ck} \times 0.83 \times 0.85 / \gamma_c = 14{,}11$ MPa
- resistenza a trazione di calcolo SLU $f_{ctd} = 1{,}19$ MPa

Acciaio per profilati a sezione cava laminati a caldo (Micropali)

- Profilati tubolari in acciaio S355H
- tensione caratteristica di rottura $f_{tk} \geq 510$ MPa
- tensione caratteristica di snervamento $f_{yk} \geq 355$ MPa
- resistenza caratteristica di calcolo SLU $f_{yd} = f_{yk} / \gamma_s = 338{,}10$ MPa

3 ASSETTO STRATIGRAFICO

Riferendosi a quanto riportato in relazione geologica le caratteristiche dei terreni sono le seguenti:

γ (KN / m^3)	19,0
c' (kPa)	5
fi' (°)	37

Si trascura la presenza della falda, ubicata ad un livello inferiore a quello di infissione massima dei micropali.

4 ANALISI DELLA BERLINESE

Le analisi di stabilità locale delle opere di sostegno e quelle per la valutazione delle sollecitazioni negli elementi resistenti (micropali) sono state condotte mediante l'ausilio del software "PCSHEETPILE WALL".
Questo codice di calcolo, noto nel campo delle applicazioni di ingegneria geotecnica per il calcolo di paratie, permettere di valutare gli spostamenti e gli sforzi dei diagrammi di sollecitazione modellando i micropali come una trave su suolo elastico in campo bidimensionale.
La legge costitutiva, rappresentativa del comportamento elasto-plastico è identificata dai parametri di spinta e di deformabilità del terreno.
Nelle analisi non si è tenuto conto di alcuna spinta idrostatica sull'opera di sostegno, data la non interferenza della falda con l'opera.
Nella tabella seguente è riportata la successione delle fasi di modellazione eseguita per la berlinese in oggetto, sia per la tratta A sia per la tratta B:

FASE	DESCRIZIONE
1	Condizione iniziale geostatica
2	Realizzazione paratia con sovraccarico permanente
3	Situazione in esercizio con carico variabile

Per la verifica della paratia si è fatto riferimento alle verifiche previste dal D. M. 14/01/2008 agli SLU, in dettaglio la berlinese è stata verificata in base all'approccio 1, ossia considerando sia la combinazione di carichi 1 (A1 + M1 + R1) sia la combinazione di carichi 2 (A1 + M2 + R2). La

combinazione sismica non è stata considerata perché sicuramente meno gravosa di quella con carico variabile agente. Il carico variabile considerato sulla sede stradale è pari a 9 KN/m^2 .

I risultati delle analisi numeriche svolte sono riportati nell'allegato 1 per la tratta A e nell'allegato 2 per la tratta B. Sono riportati in dettaglio:

- schema di calcolo;
- inviluppo del momento flettente;
- inviluppo del taglio;
- inviluppo degli spostamenti;
- inviluppo degli sforzi.

5 VERIFICA DEI MICROPALI

Per i tubi di armatura dei micropali è previsto l'impiego di acciaio S355H (Fe510) per i quali la tensione di snervamento è pari a :

fyk = 355,0 MPa

Le verifiche strutturali sono condotte agli Stati Limite Ultimi (SLU).

La tensione di progetto è pari a:

fyd = 355,0 / 1.05 = 338,1 MPa.

Con riferimento alla Combinazione 1 si sono amplificate le azioni permanenti nella struttura per un coefficiente pari a γg pari a 1,0 e quelle variabili per un coefficiente γq pari a 1,5. Con riferimento alla Combinazione 2 si sono amplificate le azioni permanenti nella struttura per un coefficiente pari a γg pari a 1,0 e quelle variabili per un coefficiente γq pari a 1,3.

Nelle verifiche strutturali della berlinese si è considerata reagente la sola armatura del micropalo. Per ottenere le sollecitazioni sul singolo profilato si moltiplica il valore riportato nei grafici risultanti dal calcolo (azioni al metro lineare) per il passo dei micropali e quindi per il corrispondente coefficiente di amplificazione dei carichi. Le verifiche sono soddisfatte quando non viene superato il valore di tensione di progetto della tensione ideale σ_{id} per la sezione più sollecitata, calcolata con il criterio di Von Mises. Il valore della tensione ideale per la sezione in esame assume la forma:

$$\sigma_{id} = \sqrt{\sigma + 3\tau^2}$$

dove

$\sigma = M_{max} / W_{pl}$

$\tau = T_{max}\ S / (a\ J)$

essendo la corda della sezione, pari al doppio spessore del tubo metallico.

La verifica è soddisfatta se $\sigma_{id} < f_{yd}$.

Le caratteristiche geometriche e di resistenza dei profilati tubolari di armatura in acciaio sono riportate nella tabella che segue.

Diametro (mm)	Spessore (mm)	A (cm^2)	W_{pl}	J (cm^4)	E (MPa)
168,3	7,1	35,90	184,60	1169,60	210000

Per tutte le sezioni analizzate le tensioni ideali nei micropali σ_{id} risulta inferiore alla tensione di progetto f_{yd}.

6 VERIFICA DEI CORDOLI

In corrispondenza della sommità della berlinese è prevista la realizzazione di un cordolo in calcestruzzo Rck 35 XF4 e armato con barre d'armatura ad aderenza migliorata tipo B450C, nel dettaglio:

- armatura longitudinale superiore costituita da 4 barre diametro 12mm;
- armatura longitudinale inferiore da 4 barre diametro 12mm;
- staffe diametro 12mm passo 20 cm.

Il cordolo è considerato una trave continua i cui vincoli sono costituiti dal cavalletto di micropali, il cui interasse di calcolo è considerato pari a 2,00m. Le azioni concentrate trasmesse attraverso i montanti della barriera di sicurezza valgono F = 2500 daN; Prudenzialmente si considera lo schema di trave in semplice appoggio con carico concentrato in mezzeria e l'armatura calcolata viene riproposta ad entrambe i lembi della sezione.

M(SLE) = 2500 x 2,00 / 4 = 1250 daNm; M(SLU) = 1,5 x 1250 = 1875 daNm;
Taglio (SLU) = 2500 / 2 = 1250 daN; Torsione (SLE) = 2500 x 1,70 / 2 = 2125 daNm

La sezione del cordolo, utile ai fini del calcolo è considerata rettangolare, 50xH100cm;
As = A's = 4ϕ12; Staffe ϕ12/20 a 2 braccia

M(SLE) = 1250 daNm

$\sigma c = 3,5 << 112$ daN/cm^2; $\sigma s = 306 << 3600$ daN/cm^2; wf = 0,04 mm; verifiche soddisfatte

M(SLU) = 1875 daNm; Mrd = 16354 >> 1875 daNm; verifica soddisfatta

T (SLU) = 1250 daN; Trd = 14617 > 1250 daN; verifica soddisfatta

Torsione (SLE) = 2125 daNm; Fn = 42 x 92 = 3864 cm^2; e = 25cm; $\sigma f = 2600$ daN/cm^2; ds = 20cm

fl = 2125 x 100 x 25 / (2 x 2600 x 3864) = 0,26 cm^2; verifica soddisfatta

fs = 2125 x 100 x 20 / (2 x 2600 x 3864) = 0,21 cm^2; verifica soddisfatta

Sul cordolo è prevista l'installazione di un guard-rail certificato tipo "H2 – bordo ponte", per maggiori dettagli si faccia riferimento all'elaborato di progetto "12_Particolari rinforzo muro di accesso strada di cantiere".

Il tecnico
ing. Lorenzo Franch

Il progettista
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IL DIRIGENTE
ing. Vittorio Cristofori

1 PREMESSA 1
2 CARATTERISTICHE DELLA BERLINESE IN MICROPALI 2
3 ASSETTO STRATIGRAFICO 3
4 ANALISI DELLA BERLINESE 3
5 VERIFICA DEI MICROPALI 4
6 VERIFICA DEI CORDOLI 5

ALLEGATI:

- ALLEGATO 1: Analisi paratia tratta A
- ALLEGATO 2: Analisi paratia tratta B

ALLEGATO 1 - Sheet Pile Wall program (PCSheetPileWall)

Version: 1.36
Date is:lunedì/4 luglio/2016, at: 16.27 hour

Sheet pile wall with anchor bulkhead.

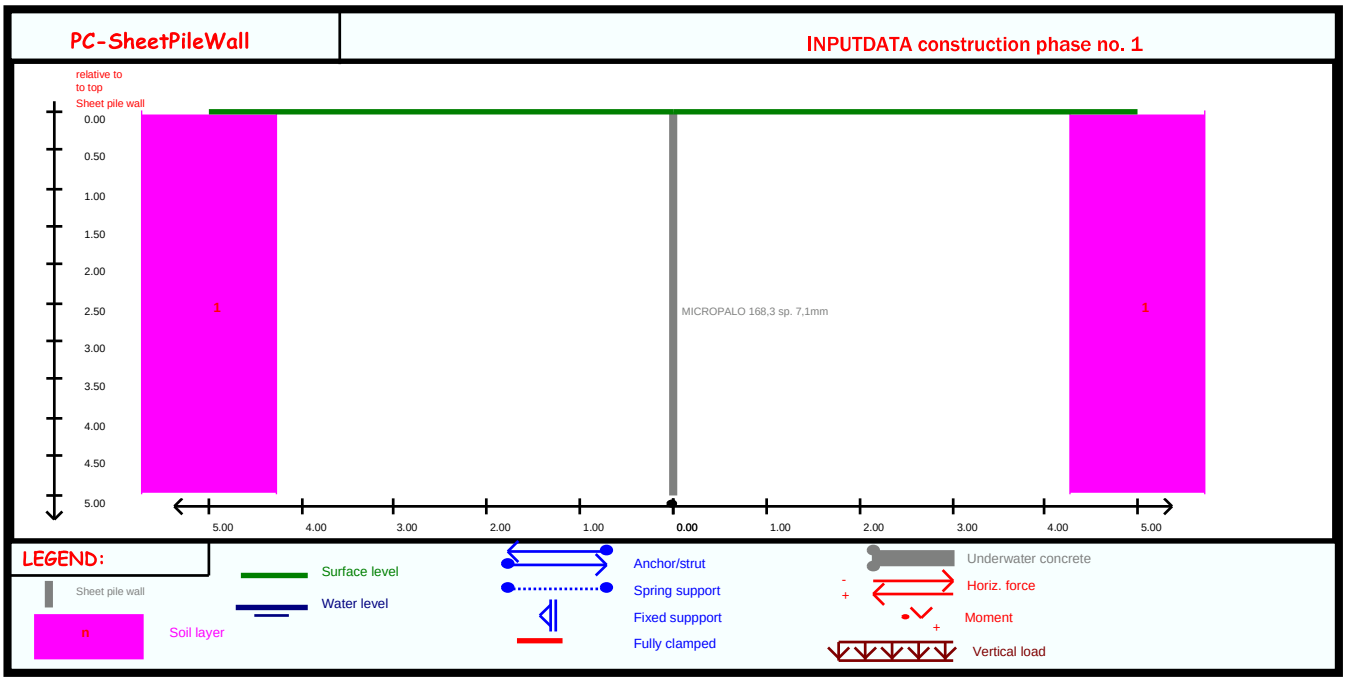
Saved as: C:\Users\pr43502\Desktop\Mori2.ShtOut

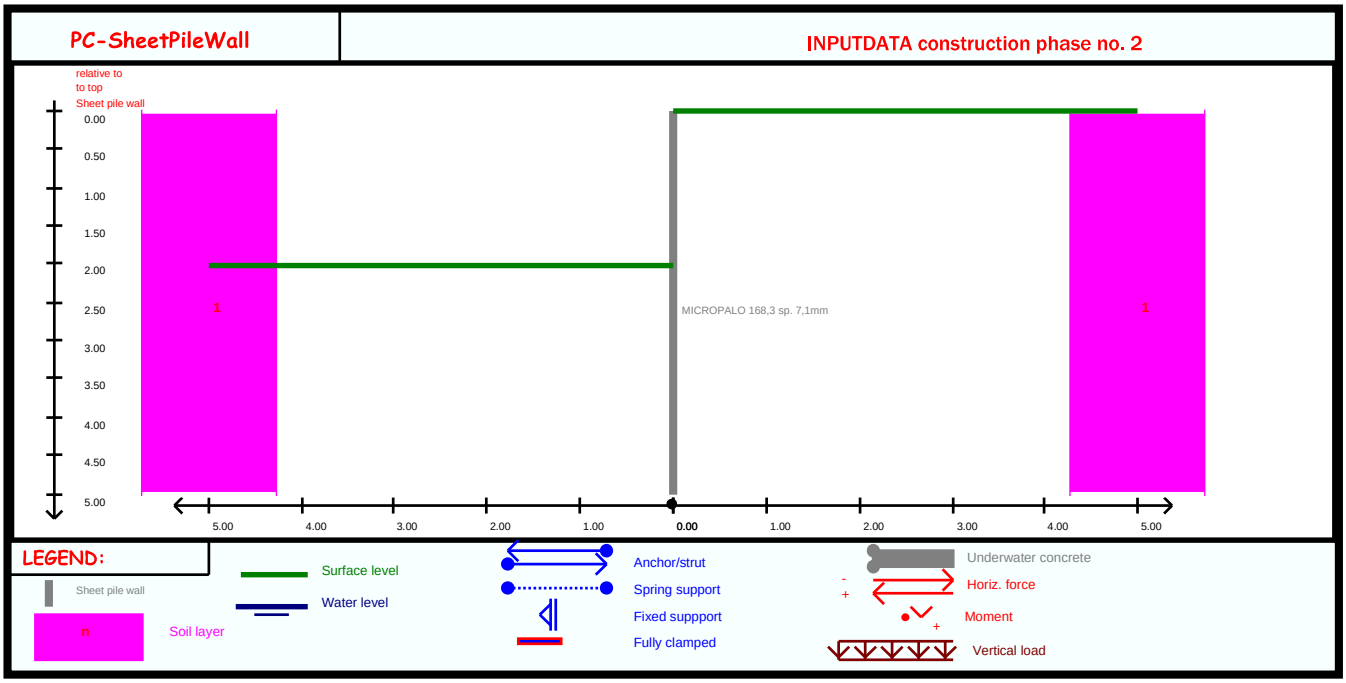
**** I N P U T DATA ****

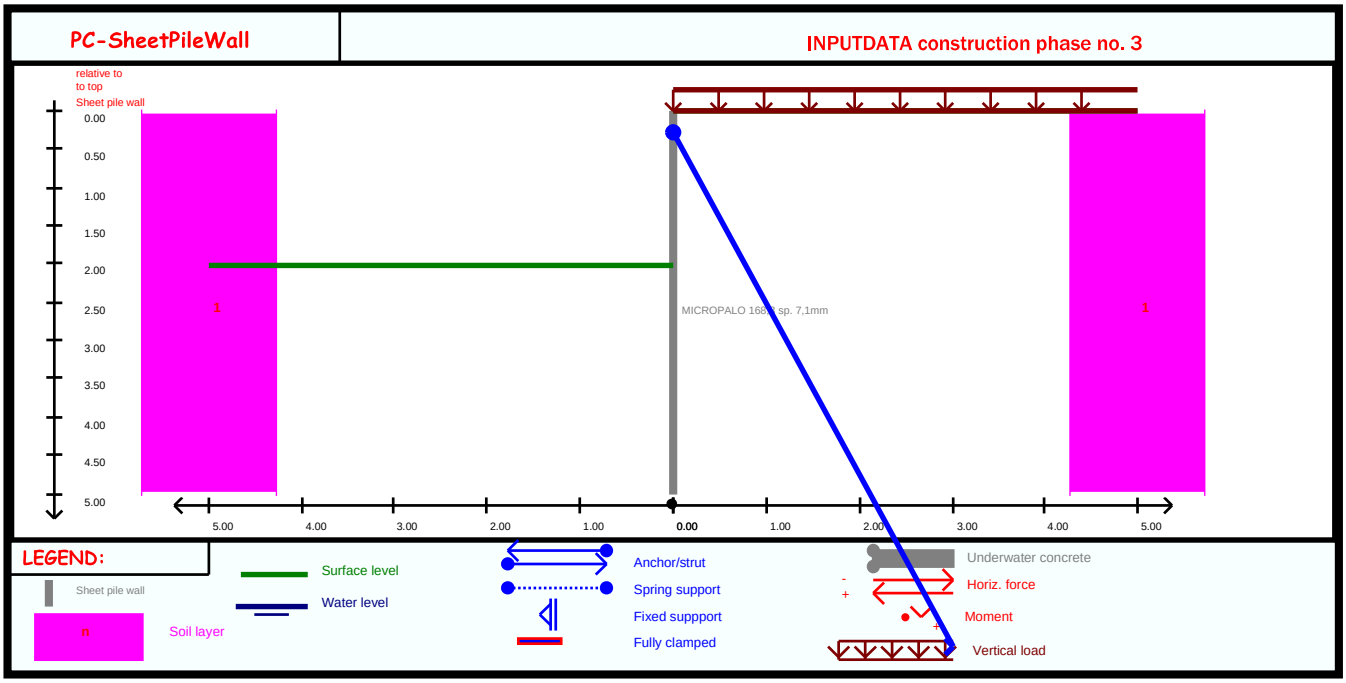
*** Partial factors according EN 1997-1 ***

- Partial factors for actions; Table A.3
A1: Permanent ` : 1.00
A1: Variable : 1.50
A2: Permanent ` : 1.00
A2: Variable : 1.30
- Partial factors for soil material parameters; Table A.4
M2: Angle of shearing resistance: 1.25
M2: Effective cohesion : 1.25
M2: Weight density : 1.00
- Partial soil resistance factors; Table A.13
R3: Bearing capacity : 1.00
R3: Sliding resistance : 1.00
R3: Earth resistance : 1.00
Steel sheet wall
Material coefficient: 1.00
Design approach: 3
Combination: (A1* or A2†) "+" M2 "+" R3
*on structural actions
†on geotechnical actions
For the limit situation ALL previous phases calculated WITH partial factors

--P R O P E R T I E S O F T H E S H E E T P I L E W A L L







Top of the sheet pile wall is the zero-level (positive to below) !
Youngs-modulus E [kN/m^2] : 2.10000E+08

Section no.: 1

MICROPALO 168,3 sp. 7,1mm

Moment of inertia I [m^4]	**:**	**2.33920E-04**
Size elastic modulus [m^3/m']	**:**	**1.39000E-04**
Size plastic modulus [m^3/m']	**:**	**3.69200E-04**
Size yield stress [N/mm^2]	**:**	**355**
Stress checks with plastic modulus		
Length of the section [m]	**:**	**5.000**
Factor effective width [-]	**:**	**1.000**
Interlock factor [-]	**:**	**1.000**

--> Total length sheet pile wall [m] : 5.000

--ANCHORTYPES

Type nr.	Y-modulus [kN/m^2]	Area [m^2]	Yield force [kN/m']	Pre-stressing [kN/m']
1	2.10000E+08	3.59000E-03	1213.000	0.000

--SOILDATA BY LAYER

Stiffness of soil is described with one spring constant
Depth of the soil layers relative to the top of the sheet pile wall!
For soil in the passive condition CURVED slip planes will be taken into account

Soil layers at the left side.

No.	Top [m]	Vol.wght.DRY [kN/m^3]	Vol.wght.SAT [kN/m^3]	Phi ---------	Delta act. [degrees]	Delta pas. ----------	Cohesion [kN/m^2]
1	0.000	19.500	21.500	37.000	10.000	10.000	5.000

No.	Extra vertical strs. above-[kN/m^2]-under	Extra water strs. above-[kN/m^2]-under	Spring constant above-[kN/m^3]-under
1	0.000 0.000	0.000 0.000	5000 5000

Soil layers at the right side.

No.	Top [m]	Vol.wght.DRY [kN/m^3]	Vol.wght.SAT [kN/m^3]	Phi ---------	Delta act. [degrees]	Delta pas. ----------	Cohesion [kN/m^2]
1	0.000	19.000	21.500	37.000	10.000	10.000	5.000

No.	Extra vertical strs. above-[kN/m^2]-under	Extra water strs. above-[kN/m^2]-under	Spring constant above-[kN/m^3]-under
1	0.000 0.000	0.000 0.000	5000 5000

Volume weight (ground)water [kN/m^3]: 9.810

***CONSTRUCTION STAGE no. 1

--LEVELS

Levels relative to the top of the sheet pile wall (positive downwards).

Surface level left side [m] : 0.000
Surface level right side [m] : 0.000

LEFT side
Water level [m] : 20.000
Variable part (ground) water level [m] : 0.000
RIGHT side
Water level [m] : 20.000
Variable part (ground) water level [m] : 0.000

***CONSTRUCTION STAGE no. 2

--LEVELS

Levels relative to the top of the sheet pile wall (positive downwards).

```
Surface level left side [m]              :    2.000
Surface level right side [m]             :    0.000

LEFT side
Water level     [m]                      :   20.000
Variable part (ground) water level [m]   :    0.000
RIGHT side
Water level   [m]                        :   20.000
Variable part (ground) water level [m]   :    0.000
```

*** C O N S T R U C T I O N S T A G E no. 3

-- L E V E L S

Levels relative to the top of the sheet pile wall (positive downwards).

```
Surface level left side [m]              :    2.000
Surface level right side [m]             :    0.000

LEFT side
Water level     [m]                      :   20.000
Variable part (ground) water level [m]   :    0.000
RIGHT side
Water level   [m]                        :   20.000
Variable part (ground) water level [m]   :    0.000
```

-- A N C H O R S at the RIGHT side --

Place relative to the top of the sheet pile wall

Type no.	Depth [m]	Length [m]	Angle [degrees]
1	0.250	7.000	65.000

-- V E R T I C A L L O A D S RIGHT SIDE

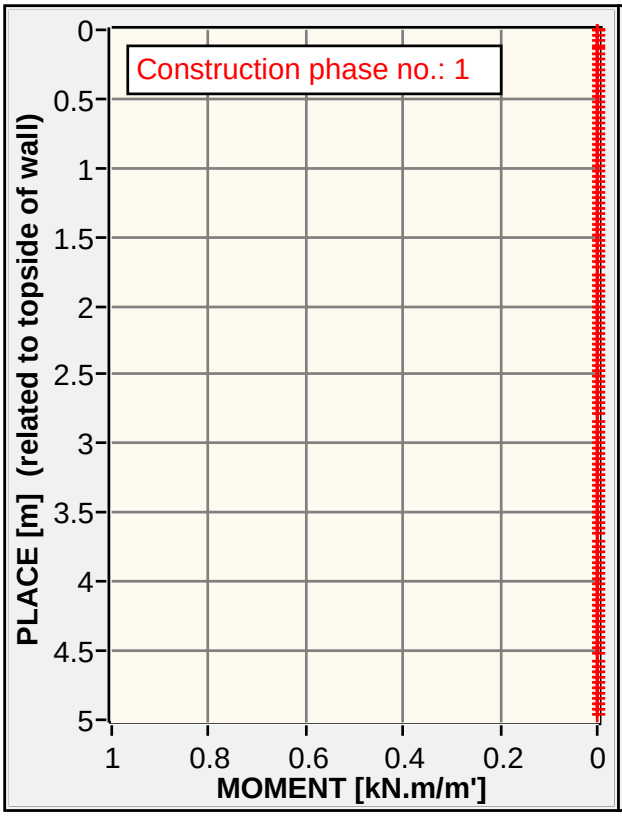
**** Equal distributed load**

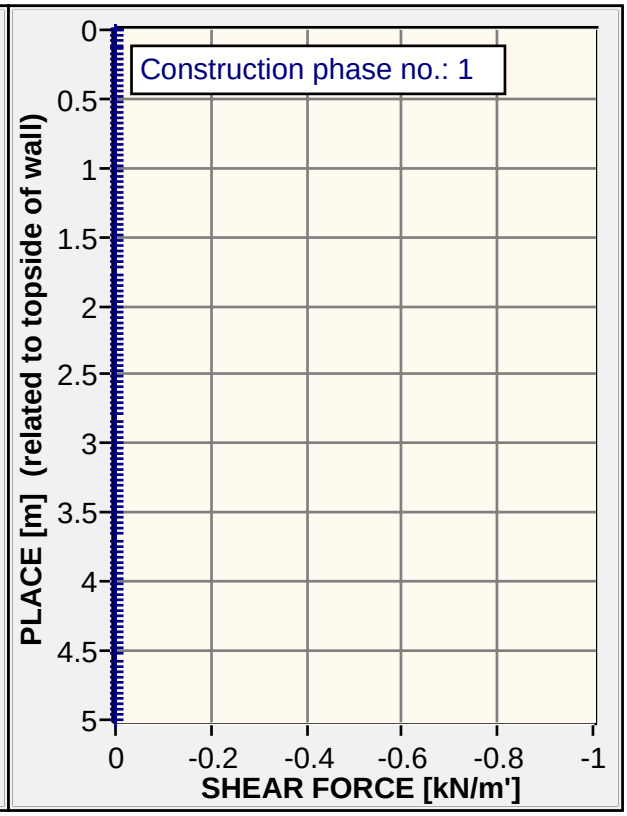
```
Size of the load    [kN/m^2/m']           9.000
Variable load(s)
```

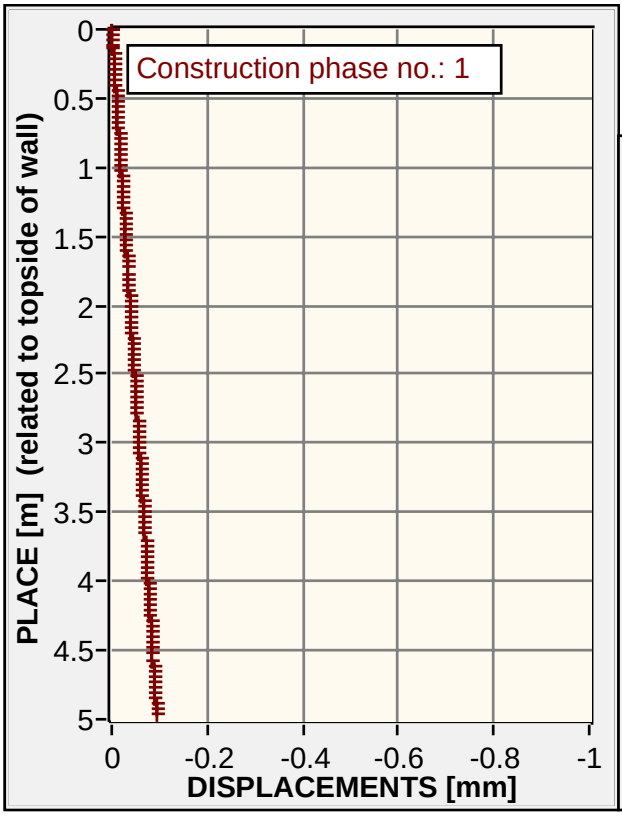
CONSTRUCTION PHASE no: 1

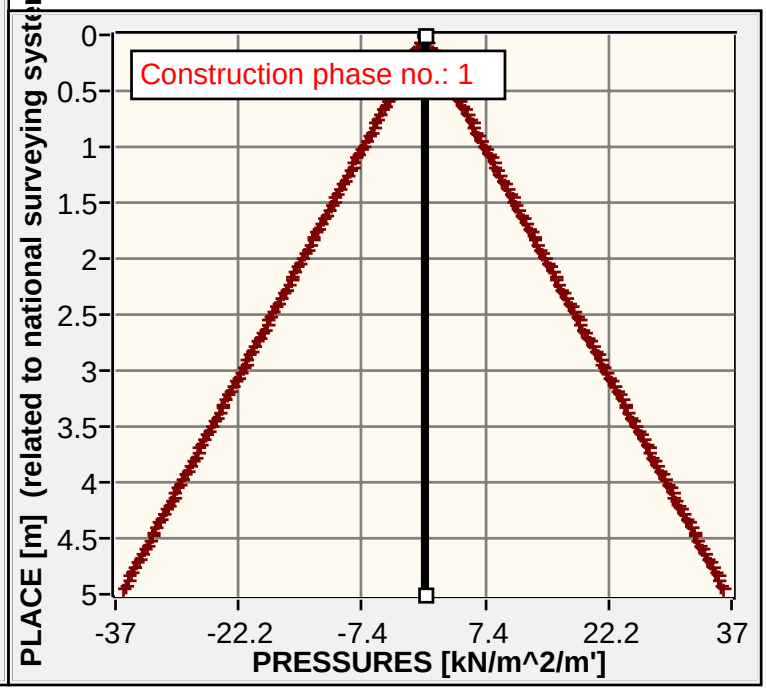
** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded









Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**-0.0**	0.000	0.00	-0.00	0.03	-	0.00	0.03	-	0.00
0.036	-0.0	0.000	0.00	-0.00	0.26	-	0.00	0.26	-	0.00
0.071	-0.0	0.000	0.00	-0.00	0.52	-	0.00	0.52	-	0.00
0.107	-0.0	0.000	0.00	-0.00	0.78	-	0.00	0.78	-	0.00
0.143	-0.0	0.000	0.00	-0.00	1.04	-	0.00	1.04	-	0.00

0.179	-0.0	0.000	0.00	-0.00	1.30	-	0.00	1.30	-	0.00
0.214	-0.0	0.000	0.00	-0.00	1.56	-	0.00	1.56	-	0.00
0.250	-0.0	0.000	0.00	-0.00	1.82	-	0.00	1.82	-	0.00
0.289	-0.0	0.000	0.00	-0.00	2.10	-	0.00	2.10	-	0.00
0.328	-0.0	0.000	0.00	-0.00	2.39	-	0.00	2.39	-	0.00
0.367	-0.0	0.000	0.00	-0.00	2.67	-	0.00	2.67	-	0.00
0.406	-0.0	0.000	0.00	-0.00	2.95	-	0.00	2.95	-	0.00
0.444	-0.0	0.000	0.00	-0.00	3.24	-	0.00	3.24	-	0.00
0.483	-0.0	0.000	0.00	-0.00	3.52	-	0.00	3.52	-	0.00
0.522	-0.0	0.000	0.00	-0.00	3.80	-	0.00	3.80	-	0.00
0.561	-0.0	0.000	0.00	-0.00	4.09	-	0.00	4.09	-	0.00
0.600	-0.0	0.000	0.00	-0.00	4.37	-	0.00	4.37	-	0.00
0.639	-0.0	0.000	0.00	-0.00	4.65	-	0.00	4.65	-	0.00
0.678	-0.0	0.000	0.00	-0.00	4.94	-	0.00	4.94	-	0.00
0.717	-0.0	0.000	0.00	-0.00	5.22	-	0.00	5.22	-	0.00
0.756	-0.0	0.000	0.00	-0.00	5.50	-	0.00	5.50	-	0.00
0.794	-0.0	0.000	0.00	-0.00	5.78	-	0.00	5.78	-	0.00
0.833	-0.0	0.000	0.00	-0.00	6.07	-	0.00	6.07	-	0.00
0.872	-0.0	0.000	0.00	-0.00	6.35	-	0.00	6.35	-	0.00
0.911	-0.0	0.000	0.00	-0.00	6.63	-	0.00	6.63	-	0.00
0.950	-0.0	0.000	0.00	-0.00	6.92	-	0.00	6.92	-	0.00
0.989	-0.0	0.000	0.00	-0.00	7.20	-	0.00	7.20	-	0.00
1.028	-0.0	0.000	0.00	-0.00	7.48	-	0.00	7.48	-	0.00
1.067	-0.0	0.000	0.00	-0.00	7.77	-	0.00	7.77	-	0.00
1.106	-0.0	0.000	0.00	-0.00	8.05	-	0.00	8.05	-	0.00
1.144	-0.0	0.000	0.00	-0.00	8.33	-	0.00	8.33	-	0.00
1.183	-0.0	0.000	0.00	-0.00	8.62	-	0.00	8.62	-	0.00
1.222	-0.0	0.000	0.00	-0.00	8.90	-	0.00	8.90	-	0.00
1.261	-0.0	0.000	0.00	-0.00	9.18	-	0.00	9.18	-	0.00
1.300	-0.0	0.000	0.00	-0.00	9.47	-	0.00	9.47	-	0.00
1.339	-0.0	0.000	0.00	-0.00	9.75	-	0.00	9.75	-	0.00
1.378	-0.0	0.000	0.00	-0.00	10.03	-	0.00	10.03	-	0.00
1.417	-0.0	0.000	0.00	-0.00	10.32	-	0.00	10.32	-	0.00
1.456	-0.0	0.000	0.00	-0.00	10.60	-	0.00	10.60	-	0.00
1.494	-0.0	0.000	0.00	-0.00	10.88	-	0.00	10.88	-	0.00
1.533	-0.0	0.000	0.00	-0.00	11.17	-	0.00	11.17	-	0.00
1.572	-0.0	0.000	0.00	-0.00	11.45	-	0.00	11.45	-	0.00
1.611	-0.0	0.000	0.00	-0.00	11.73	-	0.00	11.73	-	0.00
1.650	-0.0	0.000	0.00	-0.00	12.01	-	0.00	12.01	-	0.00
1.689	-0.0	0.000	0.00	-0.00	12.30	-	0.00	12.30	-	0.00
1.728	-0.0	0.000	0.00	-0.00	12.58	-	0.00	12.58	-	0.00
1.767	-0.0	0.000	0.00	-0.00	12.86	-	0.00	12.86	-	0.00
1.806	-0.0	0.000	0.00	-0.00	13.15	-	0.00	13.15	-	0.00
1.844	-0.0	0.000	0.00	-0.00	13.43	-	0.00	13.43	-	0.00
1.883	-0.0	0.000	0.00	-0.00	13.71	-	0.00	13.71	-	0.00
1.922	-0.0	0.000	0.00	-0.00	14.00	-	0.00	14.00	-	0.00
1.961	-0.0	0.000	0.00	-0.00	14.28	-	0.00	14.28	-	0.00
2.000	-0.0	0.000	0.00	-0.00	14.56	-	0.00	14.56	-	0.00
2.039	-0.0	0.000	0.00	-0.00	14.85	-	0.00	14.85	-	0.00
2.079	-0.0	0.000	0.00	-0.00	15.14	-	0.00	15.14	-	0.00
2.118	-0.0	0.000	0.00	-0.00	15.43	-	0.00	15.43	-	0.00
2.158	-0.0	0.000	0.00	-0.00	15.71	-	0.00	15.71	-	0.00
2.197	-0.0	0.000	0.00	-0.00	16.00	-	0.00	16.00	-	0.00
2.237	-0.0	0.000	0.00	-0.00	16.29	-	0.00	16.29	-	0.00
2.276	-0.0	0.000	0.00	-0.00	16.58	-	0.00	16.58	-	0.00
2.316	-0.0	0.000	0.00	-0.00	16.86	-	0.00	16.86	-	0.00
2.355	-0.0	0.000	0.00	-0.00	17.15	-	0.00	17.15	-	0.00
2.395	-0.0	0.000	0.00	-0.00	17.44	-	0.00	17.44	-	0.00
2.434	-0.0	0.000	0.00	-0.00	17.73	-	0.00	17.73	-	0.00
2.474	-0.0	0.000	0.00	-0.00	18.01	-	0.00	18.01	-	0.00
2.513	-0.0	0.000	0.00	-0.00	18.30	-	0.00	18.30	-	0.00
2.553	-0.0	0.000	0.00	-0.00	18.59	-	0.00	18.59	-	0.00
2.592	-0.0	0.000	0.00	-0.00	18.88	-	0.00	18.88	-	0.00
2.632	-0.0	0.000	0.00	-0.00	19.16	-	0.00	19.16	-	0.00
2.671	-0.1	0.000	0.00	-0.00	19.45	-	0.00	19.45	-	0.00
2.711	-0.1	0.000	0.00	-0.00	19.74	-	0.00	19.74	-	0.00
2.750	-0.1	0.000	0.00	-0.00	20.02	-	0.00	20.02	-	0.00
2.789	-0.1	0.000	0.00	-0.00	20.31	-	0.00	20.31	-	0.00
2.829	-0.1	0.000	0.00	-0.00	20.60	-	0.00	20.60	-	0.00
2.868	-0.1	0.000	0.00	-0.00	20.89	-	0.00	20.89	-	0.00
2.908	-0.1	0.000	0.00	-0.00	21.17	-	0.00	21.17	-	0.00
2.947	-0.1	0.000	0.00	-0.00	21.46	-	0.00	21.46	-	0.00
2.987	-0.1	0.000	0.00	-0.00	21.75	-	0.00	21.75	-	0.00
3.026	-0.1	0.000	0.00	-0.00	22.04	-	0.00	22.04	-	0.00

3.066	-0.1	0.000	0.00	-0.00	22.32	-	0.00	22.32	-	0.00
3.105	-0.1	0.000	0.00	-0.00	22.61	-	0.00	22.61	-	0.00
3.145	-0.1	0.000	0.00	-0.00	22.90	-	0.00	22.90	-	0.00
3.184	-0.1	0.000	0.00	-0.00	23.19	-	0.00	23.19	-	0.00
3.224	-0.1	0.000	0.00	-0.00	23.47	-	0.00	23.47	-	0.00
3.263	-0.1	0.000	0.00	-0.00	23.76	-	0.00	23.76	-	0.00
3.303	-0.1	0.000	0.00	-0.00	24.05	-	0.00	24.05	-	0.00
3.342	-0.1	0.000	0.00	-0.00	24.34	-	0.00	24.34	-	0.00
3.382	-0.1	0.000	0.00	-0.00	24.62	-	0.00	24.62	-	0.00
3.421	-0.1	0.000	0.00	-0.00	24.91	-	0.00	24.91	-	0.00
3.461	-0.1	0.000	0.00	-0.00	25.20	-	0.00	25.20	-	0.00
3.500	-0.1	0.000	0.00	-0.00	25.49	-	0.00	25.49	-	0.00
3.539	-0.1	0.000	0.00	-0.00	25.77	-	0.00	25.77	-	0.00
3.579	-0.1	0.000	0.00	-0.00	26.06	-	0.00	26.06	-	0.00
3.618	-0.1	0.000	0.00	-0.00	26.35	-	0.00	26.35	-	0.00
3.658	-0.1	0.000	0.00	-0.00	26.64	-	0.00	26.64	-	0.00
3.697	-0.1	0.000	0.00	-0.00	26.92	-	0.00	26.92	-	0.00
3.737	-0.1	0.000	0.00	-0.00	27.21	-	0.00	27.21	-	0.00
3.776	-0.1	0.000	0.00	-0.00	27.50	-	0.00	27.50	-	0.00
3.816	-0.1	0.000	0.00	-0.00	27.79	-	0.00	27.79	-	0.00
3.855	-0.1	0.000	0.00	-0.00	28.07	-	0.00	28.07	-	0.00
3.895	-0.1	0.000	0.00	-0.00	28.36	-	0.00	28.36	-	0.00
3.934	-0.1	0.000	0.00	-0.00	28.65	-	0.00	28.65	-	0.00
3.974	-0.1	0.000	0.00	-0.00	28.94	-	0.00	28.94	-	0.00
4.013	-0.1	0.000	0.00	-0.00	29.22	-	0.00	29.22	-	0.00
4.053	-0.1	0.000	0.00	-0.00	29.51	-	0.00	29.51	-	0.00
4.092	-0.1	0.000	0.00	-0.00	29.80	-	0.00	29.80	-	0.00
4.132	-0.1	0.000	0.00	-0.00	30.09	-	0.00	30.09	-	0.00
4.171	-0.1	0.000	0.00	-0.00	30.37	-	0.00	30.37	-	0.00
4.211	-0.1	0.000	0.00	-0.00	30.66	-	0.00	30.66	-	0.00
4.250	-0.1	0.000	0.00	-0.00	30.95	-	0.00	30.95	-	0.00
4.289	-0.1	0.000	0.00	-0.00	31.24	-	0.00	31.24	-	0.00
4.329	-0.1	0.000	0.00	-0.00	31.52	-	0.00	31.52	-	0.00
4.368	-0.1	0.000	0.00	-0.00	31.81	-	0.00	31.81	-	0.00
4.408	-0.1	0.000	0.00	-0.00	32.10	-	0.00	32.10	-	0.00
4.447	-0.1	0.000	0.00	-0.00	32.38	-	0.00	32.38	-	0.00
4.487	-0.1	0.000	0.00	-0.00	32.67	-	0.00	32.67	-	0.00
4.526	-0.1	0.000	0.00	-0.00	32.96	-	0.00	32.96	-	0.00
4.566	-0.1	0.000	0.00	-0.00	33.25	-	0.00	33.25	-	0.00
4.605	-0.1	0.000	0.00	-0.00	33.53	-	0.00	33.53	-	0.00
4.645	-0.1	0.000	0.00	-0.00	33.82	-	0.00	33.82	-	0.00
4.684	-0.1	0.000	0.00	-0.00	34.11	-	0.00	34.11	-	0.00
4.724	-0.1	0.000	0.00	-0.00	34.40	-	0.00	34.40	-	0.00
4.763	-0.1	0.000	0.00	-0.00	34.68	-	0.00	34.68	-	0.00
4.803	-0.1	0.000	0.00	-0.00	34.97	-	0.00	34.97	-	0.00
4.842	-0.1	0.000	0.00	-0.00	35.26	-	0.00	35.26	-	0.00
4.882	-0.1	0.000	0.00	-0.00	35.55	-	0.00	35.55	-	0.00
4.921	-0.1	0.000	0.00	-0.00	35.83	-	0.00	35.83	-	0.00
4.961	-0.1	0.000	0.00	-0.00	36.12	-	0.00	36.12	-	0.00
5.000	-0.1	0.000	0.00	0.00	36.41	-	0.00	36.41	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: -0.0 [mm] at X= 0.00 [m]
Largest negative displacement: -0.1 [mm] at X= 5.00 [m]
Largest bending stress: 0.000 [N/mm^2] at X= 1.49 [m]
Largest positive moment: 0.00 [kN.m/m'] at X= 1.49 [m]
Largest negative moment: 0.00 [kN.m/m'] at X= 5.00 [m]
Largest positive shear force: 0.00 [kN/m'] at X= 5.00 [m]
Largest negative shear force: -0.00 [kN/m'] at X= 3.07 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 35.169 [kN/m']
Max. total Neutral force: 92.205 [kN/m']
Max. total Passive force: 1484.836 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 91.023 [kN/m']

Total horizontal force on sheet pile (water+soil): 91.023 [kN/m']

-- RIGHT:

Max. total Active force: 33.800 [kN/m']

```
Max. total Neutral force:                                  89.840 [kN/m']
Max. total Passive force:                                1450.522 [kN/m']
Total force by water stresses:                             0.000 [kN/m']
Total mobilized horizontal soil stresses:                 91.023 [kN/m']
                                                         ----------------
Total horizontal force on sheet pile (water+soil):        91.023 [kN/m']
The passive zone is the RIGHT side mobilized for  6.28 %
```

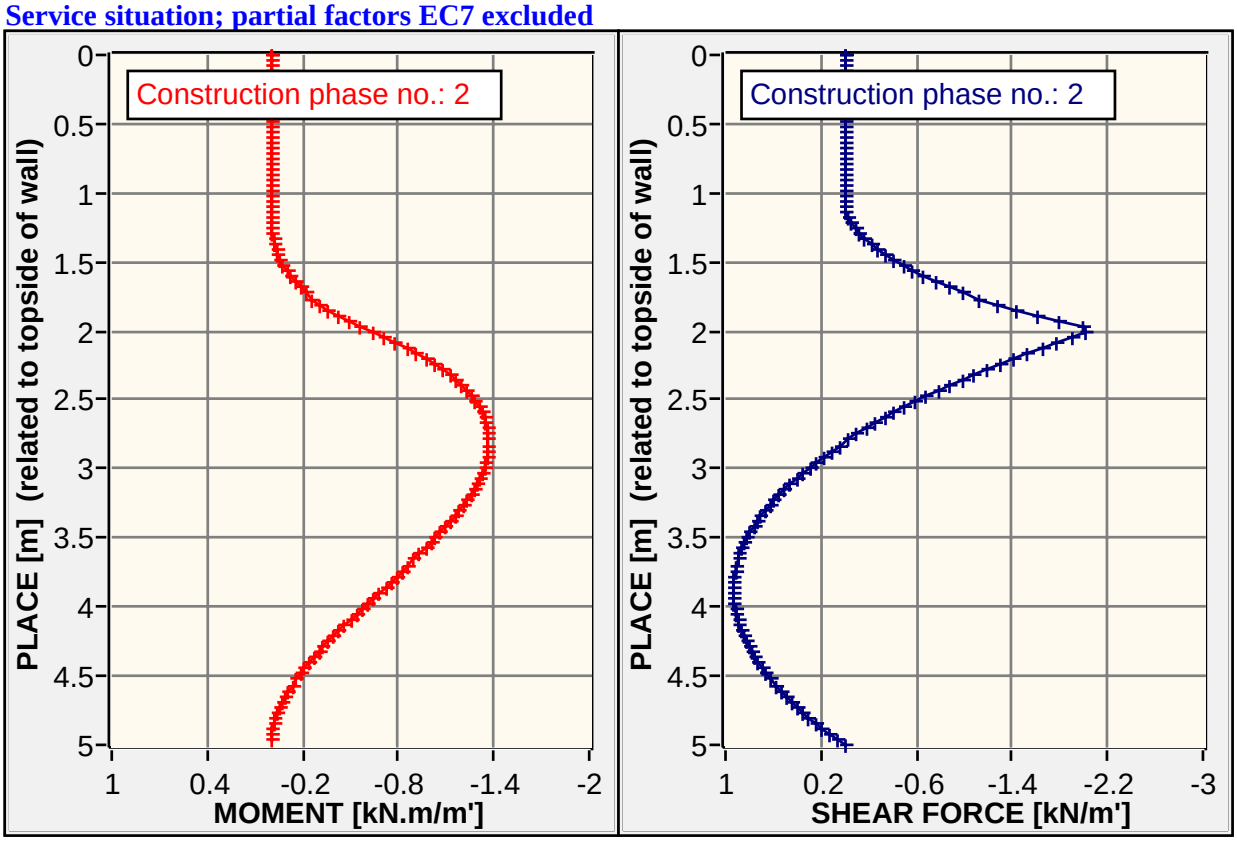
**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

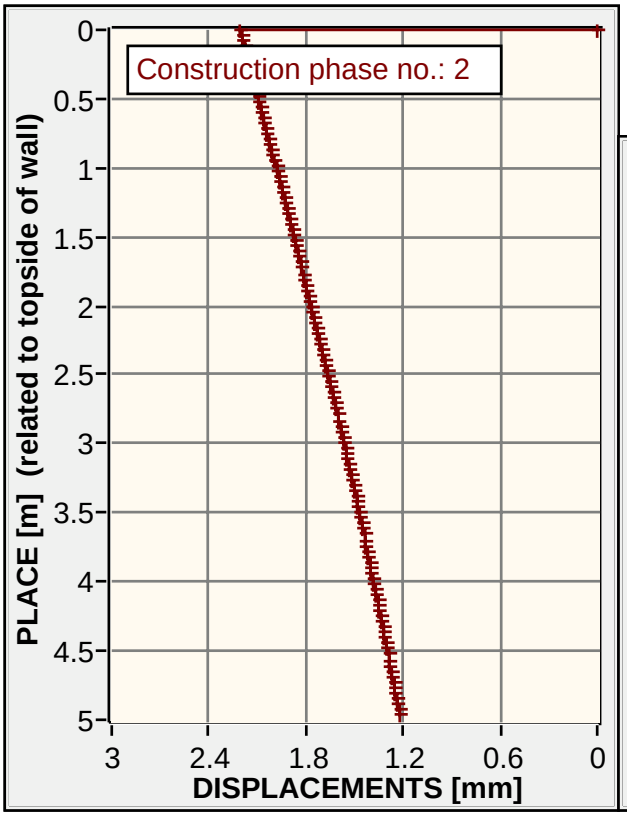
```
Vertical force along sheet pile wall LEFT:                 0.017 [kN/m']
Vertical force along sheet pile wall RIGHT:               -0.001 [kN/m']
                                                         ----------------
Required point foundation resistance sheet wall            0.016 [kN/m']
```

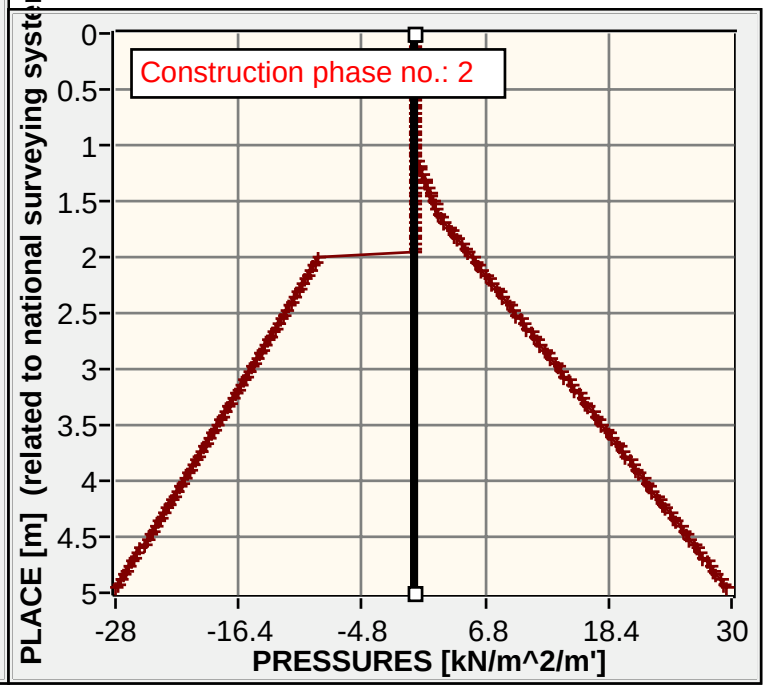
CONSTRUCTION PHASE no: 2

** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**2.2**	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.036	2.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.071	2.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.107	2.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.143	2.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.179	2.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.214	2.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.250	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.289	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.328	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.367	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.406	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.444	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.483	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.522	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.561	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.600	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.639	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.678	2.1	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.717	2.0	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.756	2.0	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.794	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.833	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.872	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.911	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.950	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.989	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
1.028	2.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
1.067	2.0	0.000	-0.00	-0.00	0.00	-	0.00	0.03	A	0.00
1.106	2.0	0.001	-0.00	-0.01	0.00	-	0.00	0.20	A	0.00
1.144	2.0	0.004	-0.00	-0.02	0.00	-	0.00	0.37	A	0.00
1.183	1.9	0.011	-0.00	-0.03	0.00	-	0.00	0.54	A	0.00
1.222	1.9	0.024	-0.00	-0.06	0.00	-	0.00	0.71	A	0.00
1.261	1.9	0.044	-0.01	-0.09	0.00	-	0.00	0.88	A	0.00
1.300	1.9	0.075	-0.01	-0.13	0.00	-	0.00	1.05	A	0.00
1.339	1.9	0.116	-0.02	-0.17	0.00	-	0.00	1.22	A	0.00
1.378	1.9	0.171	-0.02	-0.22	0.00	-	0.00	1.39	A	0.00

1.417	1.9	0.241	-0.03	-0.28	0.00	-	0.00	1.56	A	0.00
1.456	1.9	0.328	-0.05	-0.34	0.00	-	0.00	1.73	A	0.00
1.494	1.9	0.433	-0.06	-0.41	0.00	-	0.00	1.89	A	0.00
1.533	1.9	0.560	-0.08	-0.49	0.00	-	0.00	2.06	A	0.00
1.572	1.9	0.708	-0.10	-0.57	0.00	-	0.00	2.23	A	0.00
1.611	1.9	0.881	-0.12	-0.66	0.00	-	0.00	2.40	A	0.00
1.650	1.8	1.081	-0.15	-0.76	0.00	-	0.00	2.65	-	0.00
1.689	1.8	1.309	-0.18	-0.87	0.00	-	0.00	2.97	-	0.00
1.728	1.8	1.569	-0.22	-0.99	0.00	-	0.00	3.29	-	0.00
1.767	1.8	1.866	-0.26	-1.13	0.00	-	0.00	3.62	-	0.00
1.806	1.8	2.202	-0.31	-1.27	0.00	-	0.00	3.94	-	0.00
1.844	1.8	2.580	-0.36	-1.43	0.00	-	0.00	4.26	-	0.00
1.883	1.8	3.005	-0.42	-1.61	0.00	-	0.00	4.58	-	0.00
1.922	1.8	3.480	-0.48	-1.79	0.00	-	0.00	4.90	-	0.00
1.961	1.8	4.008	-0.56	-1.99	0.00	-	0.00	5.22	-	0.00
2.000	1.8	4.569	-0.64	-2.02	8.83	-	0.00	5.55	-	0.00
2.039	1.8	5.125	-0.71	-1.90	9.08	-	0.00	5.87	-	0.00
2.079	1.7	5.646	-0.78	-1.77	9.33	-	0.00	6.20	-	0.00
2.118	1.7	6.131	-0.85	-1.65	9.58	-	0.00	6.52	-	0.00
2.158	1.7	6.582	-0.91	-1.53	9.83	-	0.00	6.85	-	0.00
2.197	1.7	7.000	-0.97	-1.41	10.07	-	0.00	7.17	-	0.00
2.237	1.7	7.385	-1.03	-1.30	10.32	-	0.00	7.50	-	0.00
2.276	1.7	7.739	-1.08	-1.19	10.57	-	0.00	7.83	-	0.00
2.316	1.7	8.062	-1.12	-1.08	10.82	-	0.00	8.15	-	0.00
2.355	1.7	8.355	-1.16	-0.98	11.07	-	0.00	8.48	-	0.00
2.395	1.7	8.619	-1.20	-0.88	11.32	-	0.00	8.80	-	0.00
2.434	1.7	8.854	-1.23	-0.78	11.57	-	0.00	9.12	-	0.00
2.474	1.7	9.062	-1.26	-0.69	11.82	-	0.00	9.45	-	0.00
2.513	1.7	9.243	-1.28	-0.59	12.07	-	0.00	9.77	-	0.00
2.553	1.6	9.399	-1.31	-0.50	12.33	-	0.00	10.10	-	0.00
2.592	1.6	9.530	-1.32	-0.42	12.58	-	0.00	10.42	-	0.00
2.632	1.6	9.636	-1.34	-0.33	12.83	-	0.00	10.74	-	0.00
2.671	1.6	9.719	-1.35	-0.25	13.08	-	0.00	11.07	-	0.00
2.711	1.6	9.780	-1.36	-0.18	13.33	-	0.00	11.39	-	0.00
2.750	1.6	9.819	-1.36	-0.10	13.58	-	0.00	11.71	-	0.00
2.789	1.6	9.836	-1.37	-0.03	13.84	-	0.00	12.04	-	0.00
2.829	1.6	9.834	-1.37	0.04	14.09	-	0.00	12.36	-	0.00
2.868	1.6	9.812	-1.36	0.11	14.34	-	0.00	12.68	-	0.00
2.908	1.6	9.772	-1.36	0.17	14.59	-	0.00	13.00	-	0.00
2.947	1.6	9.714	-1.35	0.23	14.85	-	0.00	13.33	-	0.00
2.987	1.6	9.639	-1.34	0.29	15.10	-	0.00	13.65	-	0.00
3.026	1.6	9.547	-1.33	0.35	15.35	-	0.00	13.97	-	0.00
3.066	1.5	9.440	-1.31	0.40	15.61	-	0.00	14.29	-	0.00
3.105	1.5	9.318	-1.30	0.45	15.86	-	0.00	14.61	-	0.00
3.145	1.5	9.183	-1.28	0.50	16.11	-	0.00	14.93	-	0.00
3.184	1.5	9.034	-1.26	0.55	16.37	-	0.00	15.25	-	0.00
3.224	1.5	8.872	-1.23	0.59	16.62	-	0.00	15.57	-	0.00
3.263	1.5	8.699	-1.21	0.63	16.88	-	0.00	15.89	-	0.00
3.303	1.5	8.514	-1.18	0.67	17.13	-	0.00	16.21	-	0.00
3.342	1.5	8.320	-1.16	0.70	17.39	-	0.00	16.53	-	0.00
3.382	1.5	8.115	-1.13	0.73	17.64	-	0.00	16.85	-	0.00
3.421	1.5	7.902	-1.10	0.76	17.90	-	0.00	17.17	-	0.00
3.461	1.5	7.681	-1.07	0.79	18.15	-	0.00	17.49	-	0.00
3.500	1.5	7.452	-1.04	0.82	18.41	-	0.00	17.81	-	0.00
3.539	1.5	7.216	-1.00	0.84	18.67	-	0.00	18.13	-	0.00
3.579	1.5	6.975	-0.97	0.86	18.92	-	0.00	18.45	-	0.00
3.618	1.4	6.728	-0.94	0.88	19.18	-	0.00	18.77	-	0.00
3.658	1.4	6.476	-0.90	0.89	19.43	-	0.00	19.08	-	0.00
3.697	1.4	6.221	-0.86	0.90	19.69	-	0.00	19.40	-	0.00
3.737	1.4	5.962	-0.83	0.92	19.95	-	0.00	19.72	-	0.00
3.776	1.4	5.701	-0.79	0.92	20.21	-	0.00	20.04	-	0.00
3.816	1.4	5.438	-0.76	0.93	20.46	-	0.00	20.36	-	0.00
3.855	1.4	5.174	-0.72	0.93	20.72	-	0.00	20.67	-	0.00
3.895	1.4	4.909	-0.68	0.93	20.98	-	0.00	20.99	-	0.00
3.934	1.4	4.644	-0.65	0.93	21.23	-	0.00	21.31	-	0.00
3.974	1.4	4.381	-0.61	0.93	21.49	-	0.00	21.63	-	0.00
4.013	1.4	4.118	-0.57	0.92	21.75	-	0.00	21.94	-	0.00
4.053	1.4	3.858	-0.54	0.91	22.01	-	0.00	22.26	-	0.00
4.092	1.4	3.601	-0.50	0.90	22.26	-	0.00	22.58	-	0.00
4.132	1.4	3.348	-0.47	0.89	22.52	-	0.00	22.90	-	0.00
4.171	1.4	3.098	-0.43	0.87	22.78	-	0.00	23.21	-	0.00
4.211	1.3	2.854	-0.40	0.85	23.04	-	0.00	23.53	-	0.00
4.250	1.3	2.615	-0.36	0.83	23.29	-	0.00	23.85	-	0.00
4.289	1.3	2.382	-0.33	0.81	23.55	-	0.00	24.16	-	0.00

4.329	1.3	2.156	-0.30	0.78	23.81	-	0.00	24.48	-	0.00
4.368	1.3	1.938	-0.27	0.75	24.07	-	0.00	24.80	-	0.00
4.408	1.3	1.728	-0.24	0.72	24.33	-	0.00	25.11	-	0.00
4.447	1.3	1.526	-0.21	0.69	24.59	-	0.00	25.43	-	0.00
4.487	1.3	1.334	-0.19	0.66	24.84	-	0.00	25.75	-	0.00
4.526	1.3	1.153	-0.16	0.62	25.10	-	0.00	26.06	-	0.00
4.566	1.3	0.982	-0.14	0.58	25.36	-	0.00	26.38	-	0.00
4.605	1.3	0.822	-0.11	0.54	25.62	-	0.00	26.70	-	0.00
4.645	1.3	0.675	-0.09	0.50	25.88	-	0.00	27.01	-	0.00
4.684	1.3	0.540	-0.08	0.45	26.14	-	0.00	27.33	-	0.00
4.724	1.3	0.419	-0.06	0.40	26.39	-	0.00	27.65	-	0.00
4.763	1.3	0.311	-0.04	0.35	26.65	-	0.00	27.96	-	0.00
4.803	1.2	0.219	-0.03	0.30	26.91	-	0.00	28.28	-	0.00
4.842	1.2	0.142	-0.02	0.24	27.17	-	0.00	28.60	-	0.00
4.882	1.2	0.081	-0.01	0.19	27.43	-	0.00	28.91	-	0.00
4.921	1.2	0.036	-0.01	0.13	27.69	-	0.00	29.23	-	0.00
4.961	1.2	0.009	-0.00	0.06	27.94	-	0.00	29.55	-	0.00
5.000	1.2	0.000	0.00	0.00	28.20	-	0.00	29.86	-	0.00

Distance relative to top sheet pile wall !

```
Largest positive displacement:       2.2 [mm]     at X=  0.00 [m]
Largest negative displacement:       1.2 [mm]     at X=  5.00 [m]
Largest bending stress:            9.836 [N/mm^2] at X=  2.79 [m]
Largest positive moment:            0.00 [kN.m/m']   at X=  0.44 [m]
Largest negative moment:           -1.37 [kN.m/m']   at X=  2.79 [m]
Largest positive shear force:       0.93 [kN/m']     at X=  3.89 [m]
Largest negative shear force:      -2.02 [kN/m']     at X=  2.00 [m]
```

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

```
Max. total Active force:                                  8.651 [kN/m']
Max. total Neutral force:                                33.475 [kN/m']
Max. total Passive force:                               570.368 [kN/m']
Total force by water stresses:                            0.000 [kN/m']
Total mobilized horizontal soil stresses:                55.513 [kN/m']
                                                        ---------------
Total horizontal force on sheet pile (water+soil):       55.513 [kN/m']
The passive zone is at the LEFT side mobilized for  9.73 %
```

-- RIGHT:

```
Max. total Active force:                                 33.800 [kN/m']
Max. total Neutral force:                                89.840 [kN/m']
Max. total Passive force:                              1450.522 [kN/m']
Total force by water stresses:                            0.000 [kN/m']
Total mobilized horizontal soil stresses:                55.514 [kN/m']
                                                        ---------------
Total horizontal force on sheet pile (water+soil):       55.514 [kN/m']
```

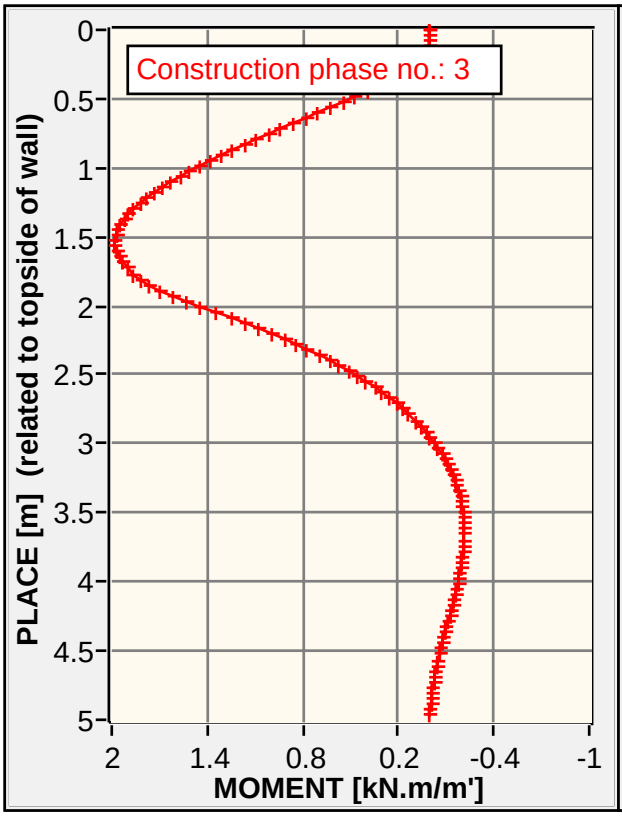
**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

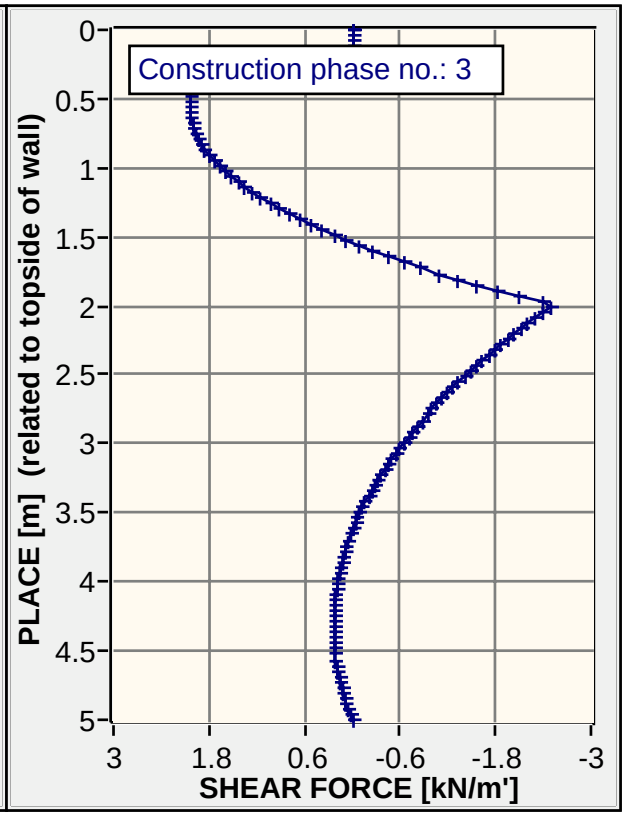
```
Vertical force along sheet pile wall LEFT:               -0.035 [kN/m']
Vertical force along sheet pile wall RIGHT:               0.469 [kN/m']
                                                        ---------------
Required point foundation resistance sheet wall           0.434 [kN/m']
```

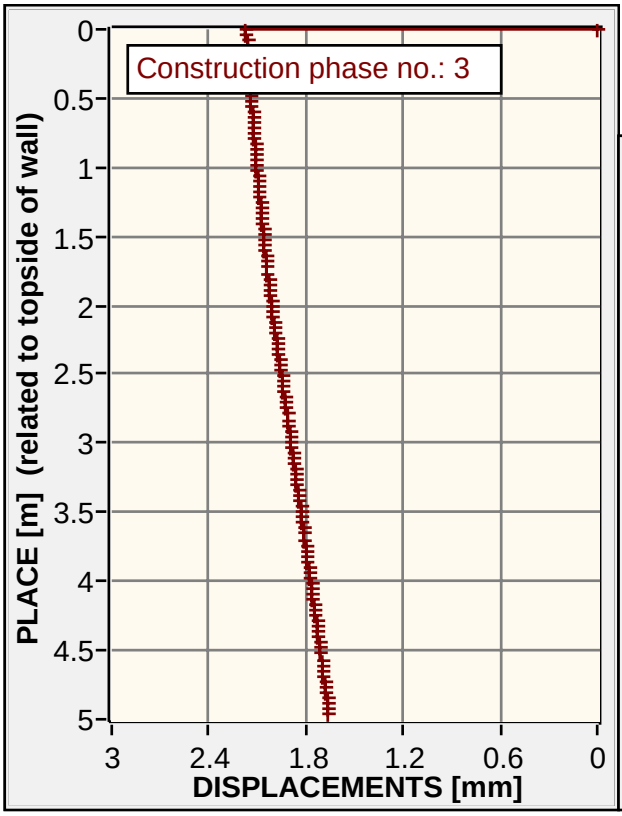
CONSTRUCTION PHASE no: 3

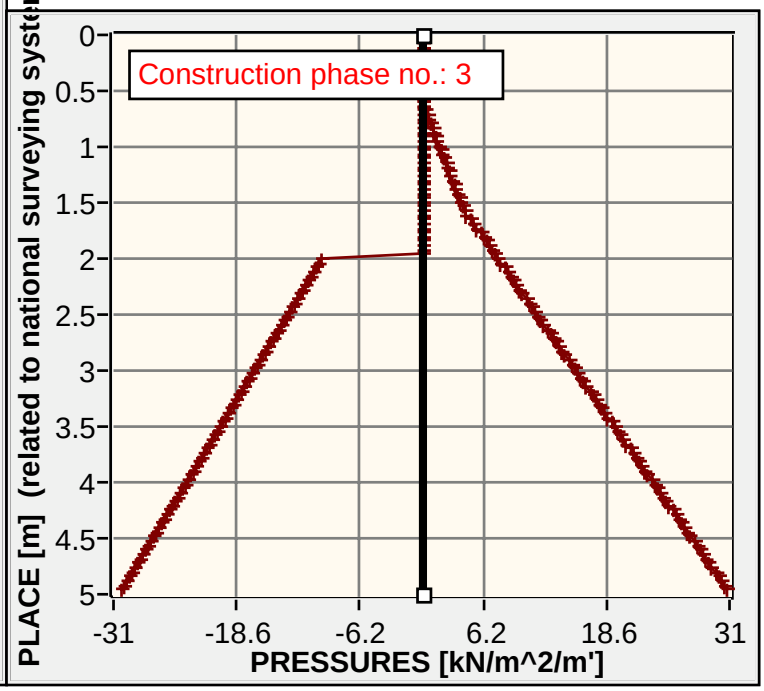
** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded









Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**2.2**	0.000	-0.00	-0.00	0.00	-	0.00	0.15	-	0.00
0.036	2.2	0.001	-0.00	-0.00	0.00	-	0.00	0.13	-	0.00
0.071	2.2	0.002	-0.00	-0.01	0.00	-	0.00	0.10	-	0.00
0.107	2.2	0.005	-0.00	-0.01	0.00	-	0.00	0.07	-	0.00
0.143	2.2	0.008	-0.00	-0.01	0.00	-	0.00	0.04	-	0.00

0.179	2.2	0.012	-0.00	-0.01	0.00	-	0.00	0.02	-	0.00
0.214	2.2	0.016	-0.00	-0.02	0.00	-	0.00	0.00	A	0.00
0.250	2.2	0.020	-0.00	2.03	0.00	-	0.00	0.00	A	0.00
0.289	2.2	0.547	0.08	2.03	0.00	-	0.00	0.00	A	0.00
0.328	2.2	1.113	0.15	2.03	0.00	-	0.00	0.00	A	0.00
0.367	2.1	1.680	0.23	2.03	0.00	-	0.00	0.00	A	0.00
0.406	2.1	2.247	0.31	2.03	0.00	-	0.00	0.00	A	0.00
0.444	2.1	2.814	0.39	2.03	0.00	-	0.00	0.00	A	0.00
0.483	2.1	3.380	0.47	2.03	0.00	-	0.00	0.00	A	0.00
0.522	2.1	3.947	0.55	2.03	0.00	-	0.00	0.00	A	0.00
0.561	2.1	4.514	0.63	2.03	0.00	-	0.00	0.00	A	0.00
0.600	2.1	5.080	0.71	2.02	0.00	-	0.00	0.06	A	0.00
0.639	2.1	5.646	0.78	2.02	0.00	-	0.00	0.23	A	0.00
0.678	2.1	6.209	0.86	2.01	0.00	-	0.00	0.40	A	0.00
0.717	2.1	6.768	0.94	1.99	0.00	-	0.00	0.57	A	0.00
0.756	2.1	7.320	1.02	1.96	0.00	-	0.00	0.74	A	0.00
0.794	2.1	7.865	1.09	1.93	0.00	-	0.00	0.91	A	0.00
0.833	2.1	8.399	1.17	1.89	0.00	-	0.00	1.08	A	0.00
0.872	2.1	8.922	1.24	1.85	0.00	-	0.00	1.25	A	0.00
0.911	2.1	9.431	1.31	1.79	0.00	-	0.00	1.42	A	0.00
0.950	2.1	9.925	1.38	1.74	0.00	-	0.00	1.59	A	0.00
0.989	2.1	10.402	1.45	1.67	0.00	-	0.00	1.76	A	0.00
1.028	2.1	10.859	1.51	1.60	0.00	-	0.00	1.92	A	0.00
1.067	2.1	11.296	1.57	1.52	0.00	-	0.00	2.09	A	0.00
1.106	2.1	11.710	1.63	1.44	0.00	-	0.00	2.26	A	0.00
1.144	2.1	12.099	1.68	1.35	0.00	-	0.00	2.43	A	0.00
1.183	2.1	12.461	1.73	1.25	0.00	-	0.00	2.60	A	0.00
1.222	2.1	12.796	1.78	1.14	0.00	-	0.00	2.77	A	0.00
1.261	2.1	13.100	1.82	1.03	0.00	-	0.00	2.94	A	0.00
1.300	2.1	13.372	1.86	0.91	0.00	-	0.00	3.11	A	0.00
1.339	2.1	13.610	1.89	0.79	0.00	-	0.00	3.28	A	0.00
1.378	2.1	13.813	1.92	0.66	0.00	-	0.00	3.45	A	0.00
1.417	2.1	13.978	1.94	0.52	0.00	-	0.00	3.62	A	0.00
1.456	2.1	14.104	1.96	0.38	0.00	-	0.00	3.79	A	0.00
1.494	2.1	14.189	1.97	0.23	0.00	-	0.00	3.96	A	0.00
1.533	2.1	14.230	1.98	0.07	0.00	-	0.00	4.13	A	0.00
1.572	2.1	14.227	1.98	-0.09	0.00	-	0.00	4.29	A	0.00
1.611	2.1	14.177	1.97	-0.26	0.00	-	0.00	4.46	A	0.00
1.650	2.0	14.077	1.96	-0.45	0.00	-	0.00	5.02	-	0.00
1.689	2.0	13.924	1.94	-0.65	0.00	-	0.00	5.32	-	0.00
1.728	2.0	13.712	1.91	-0.86	0.00	-	0.00	5.62	-	0.00
1.767	2.0	13.440	1.87	-1.09	0.00	-	0.00	5.92	-	0.00
1.806	2.0	13.103	1.82	-1.32	0.00	-	0.00	6.22	-	0.00
1.844	2.0	12.698	1.77	-1.57	0.00	-	0.00	6.52	-	0.00
1.883	2.0	12.223	1.70	-1.83	0.00	-	0.00	6.82	-	0.00
1.922	2.0	11.673	1.62	-2.10	0.00	-	0.00	7.12	-	0.00
1.961	2.0	11.046	1.54	-2.38	0.00	-	0.00	7.42	-	0.00
2.000	2.0	10.366	1.44	-2.48	10.06	-	0.00	7.72	-	0.00
2.039	2.0	9.674	1.34	-2.39	10.33	-	0.00	8.03	-	0.00
2.079	2.0	9.008	1.25	-2.30	10.60	-	0.00	8.33	-	0.00
2.118	2.0	8.368	1.16	-2.21	10.87	-	0.00	8.64	-	0.00
2.158	2.0	7.752	1.08	-2.12	11.13	-	0.00	8.94	-	0.00
2.197	2.0	7.161	1.00	-2.04	11.40	-	0.00	9.25	-	0.00
2.237	2.0	6.595	0.92	-1.95	11.67	-	0.00	9.56	-	0.00
2.276	2.0	6.052	0.84	-1.87	11.94	-	0.00	9.86	-	0.00
2.316	2.0	5.532	0.77	-1.79	12.21	-	0.00	10.17	-	0.00
2.355	2.0	5.035	0.70	-1.71	12.47	-	0.00	10.48	-	0.00
2.395	2.0	4.560	0.63	-1.63	12.74	-	0.00	10.79	-	0.00
2.434	2.0	4.107	0.57	-1.56	13.01	-	0.00	11.09	-	0.00
2.474	2.0	3.676	0.51	-1.48	13.28	-	0.00	11.40	-	0.00
2.513	2.0	3.266	0.45	-1.41	13.54	-	0.00	11.71	-	0.00
2.553	1.9	2.876	0.40	-1.34	13.81	-	0.00	12.02	-	0.00
2.592	1.9	2.507	0.35	-1.27	14.08	-	0.00	12.32	-	0.00
2.632	1.9	2.157	0.30	-1.20	14.35	-	0.00	12.63	-	0.00
2.671	1.9	1.826	0.25	-1.13	14.61	-	0.00	12.94	-	0.00
2.711	1.9	1.514	0.21	-1.07	14.88	-	0.00	13.25	-	0.00
2.750	1.9	1.221	0.17	-1.00	15.15	-	0.00	13.55	-	0.00
2.789	1.9	0.945	0.13	-0.94	15.41	-	0.00	13.86	-	0.00
2.829	1.9	0.687	0.10	-0.88	15.68	-	0.00	14.17	-	0.00
2.868	1.9	0.446	0.06	-0.82	15.95	-	0.00	14.48	-	0.00
2.908	1.9	0.221	0.03	-0.76	16.22	-	0.00	14.79	-	0.00
2.947	1.9	0.012	0.00	-0.71	16.48	-	0.00	15.09	-	0.00
2.987	1.9	0.181	-0.03	-0.65	16.75	-	0.00	15.40	-	0.00
3.026	1.9	0.359	-0.05	-0.60	17.02	-	0.00	15.71	-	0.00

3.066	1.9	0.523	-0.07	-0.55	17.28	-	0.00	16.02	-	0.00
3.105	1.9	0.672	-0.09	-0.50	17.55	-	0.00	16.33	-	0.00
3.145	1.9	0.808	-0.11	-0.45	17.82	-	0.00	16.63	-	0.00
3.184	1.9	0.930	-0.13	-0.41	18.08	-	0.00	16.94	-	0.00
3.224	1.9	1.040	-0.14	-0.36	18.35	-	0.00	17.25	-	0.00
3.263	1.9	1.137	-0.16	-0.32	18.62	-	0.00	17.56	-	0.00
3.303	1.9	1.222	-0.17	-0.28	18.89	-	0.00	17.86	-	0.00
3.342	1.9	1.296	-0.18	-0.24	19.15	-	0.00	18.17	-	0.00
3.382	1.8	1.359	-0.19	-0.20	19.42	-	0.00	18.48	-	0.00
3.421	1.8	1.411	-0.20	-0.17	19.69	-	0.00	18.79	-	0.00
3.461	1.8	1.453	-0.20	-0.13	19.95	-	0.00	19.10	-	0.00
3.500	1.8	1.486	-0.21	-0.10	20.22	-	0.00	19.40	-	0.00
3.539	1.8	1.509	-0.21	-0.07	20.49	-	0.00	19.71	-	0.00
3.579	1.8	1.524	-0.21	-0.04	20.76	-	0.00	20.02	-	0.00
3.618	1.8	1.530	-0.21	-0.01	21.02	-	0.00	20.33	-	0.00
3.658	1.8	1.529	-0.21	0.02	21.29	-	0.00	20.63	-	0.00
3.697	1.8	1.520	-0.21	0.04	21.56	-	0.00	20.94	-	0.00
3.737	1.8	1.504	-0.21	0.07	21.83	-	0.00	21.25	-	0.00
3.776	1.8	1.482	-0.21	0.09	22.09	-	0.00	21.56	-	0.00
3.816	1.8	1.454	-0.20	0.11	22.36	-	0.00	21.86	-	0.00
3.855	1.8	1.420	-0.20	0.13	22.63	-	0.00	22.17	-	0.00
3.895	1.8	1.381	-0.19	0.15	22.90	-	0.00	22.48	-	0.00
3.934	1.8	1.337	-0.19	0.16	23.16	-	0.00	22.78	-	0.00
3.974	1.8	1.289	-0.18	0.18	23.43	-	0.00	23.09	-	0.00
4.013	1.8	1.238	-0.17	0.19	23.70	-	0.00	23.40	-	0.00
4.053	1.8	1.183	-0.16	0.20	23.97	-	0.00	23.71	-	0.00
4.092	1.8	1.125	-0.16	0.21	24.23	-	0.00	24.01	-	0.00
4.132	1.8	1.064	-0.15	0.22	24.50	-	0.00	24.32	-	0.00
4.171	1.8	1.002	-0.14	0.22	24.77	-	0.00	24.63	-	0.00
4.211	1.7	0.938	-0.13	0.23	25.04	-	0.00	24.93	-	0.00
4.250	1.7	0.873	-0.12	0.23	25.31	-	0.00	25.24	-	0.00
4.289	1.7	0.807	-0.11	0.23	25.57	-	0.00	25.55	-	0.00
4.329	1.7	0.741	-0.10	0.23	25.84	-	0.00	25.86	-	0.00
4.368	1.7	0.675	-0.09	0.23	26.11	-	0.00	26.16	-	0.00
4.408	1.7	0.610	-0.08	0.23	26.38	-	0.00	26.47	-	0.00
4.447	1.7	0.545	-0.08	0.22	26.64	-	0.00	26.78	-	0.00
4.487	1.7	0.482	-0.07	0.22	26.91	-	0.00	27.08	-	0.00
4.526	1.7	0.421	-0.06	0.21	27.18	-	0.00	27.39	-	0.00
4.566	1.7	0.363	-0.05	0.20	27.45	-	0.00	27.70	-	0.00
4.605	1.7	0.307	-0.04	0.19	27.72	-	0.00	28.00	-	0.00
4.645	1.7	0.255	-0.04	0.18	27.98	-	0.00	28.31	-	0.00
4.684	1.7	0.206	-0.03	0.17	28.25	-	0.00	28.62	-	0.00
4.724	1.7	0.161	-0.02	0.15	28.52	-	0.00	28.93	-	0.00
4.763	1.7	0.121	-0.02	0.13	28.79	-	0.00	29.23	-	0.00
4.803	1.7	0.086	-0.01	0.11	29.06	-	0.00	29.54	-	0.00
4.842	1.7	0.056	-0.01	0.09	29.32	-	0.00	29.85	-	0.00
4.882	1.7	0.032	-0.00	0.07	29.59	-	0.00	30.15	-	0.00
4.921	1.7	0.015	-0.00	0.05	29.86	-	0.00	30.46	-	0.00
4.961	1.7	0.004	-0.00	0.03	30.13	-	0.00	30.77	-	0.00
5.000	1.7	0.000	0.00	0.00	30.40	-	0.00	31.07	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: 2.2 [mm] at X= 0.00 [m]
Largest negative displacement: 1.7 [mm] at X= 5.00 [m]
Largest bending stress: 14.230 [N/mm^2] at X= 1.53 [m]
Largest positive moment: 1.98 [kN.m/m'] at X= 1.53 [m]
Largest negative moment: -0.21 [kN.m/m'] at X= 3.62 [m]
Largest positive shear force: 2.03 [kN/m'] at X= 0.25 [m]
Largest negative shear force: -2.48 [kN/m'] at X= 2.00 [m]

Anchors at the RIGHT side:

Anchor- or strut-force (INCLINED) no. 1 : 4.830 [kN/m'] at X= 0.250 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 8.651 [kN/m']
Max. total Neutral force: 33.475 [kN/m']
Max. total Passive force: 570.368 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 60.873 [kN/m']

Total horizontal force on sheet pile (water+soil): 60.873 [kN/m']

The passive zone is at the LEFT side mobilized for 10.67 %

-- RIGHT:

Max. total Active force:	42.414 [kN/m']
Max. total Neutral force:	106.849 [kN/m']
Max. total Passive force:	1697.383 [kN/m']
Total force by water stresses:	0.000 [kN/m']
Total mobilized horizontal soil stresses:	62.914 [kN/m']
Total horizontal force on sheet pile (water+soil):	62.914 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

Vertical force along sheet pile wall LEFT:	-0.042 [kN/m']
Vertical force along sheet pile wall RIGHT:	5.203 [kN/m']
Required point foundation resistance sheet wall	5.161 [kN/m']

***** Maximum values over ALL construction stages *****

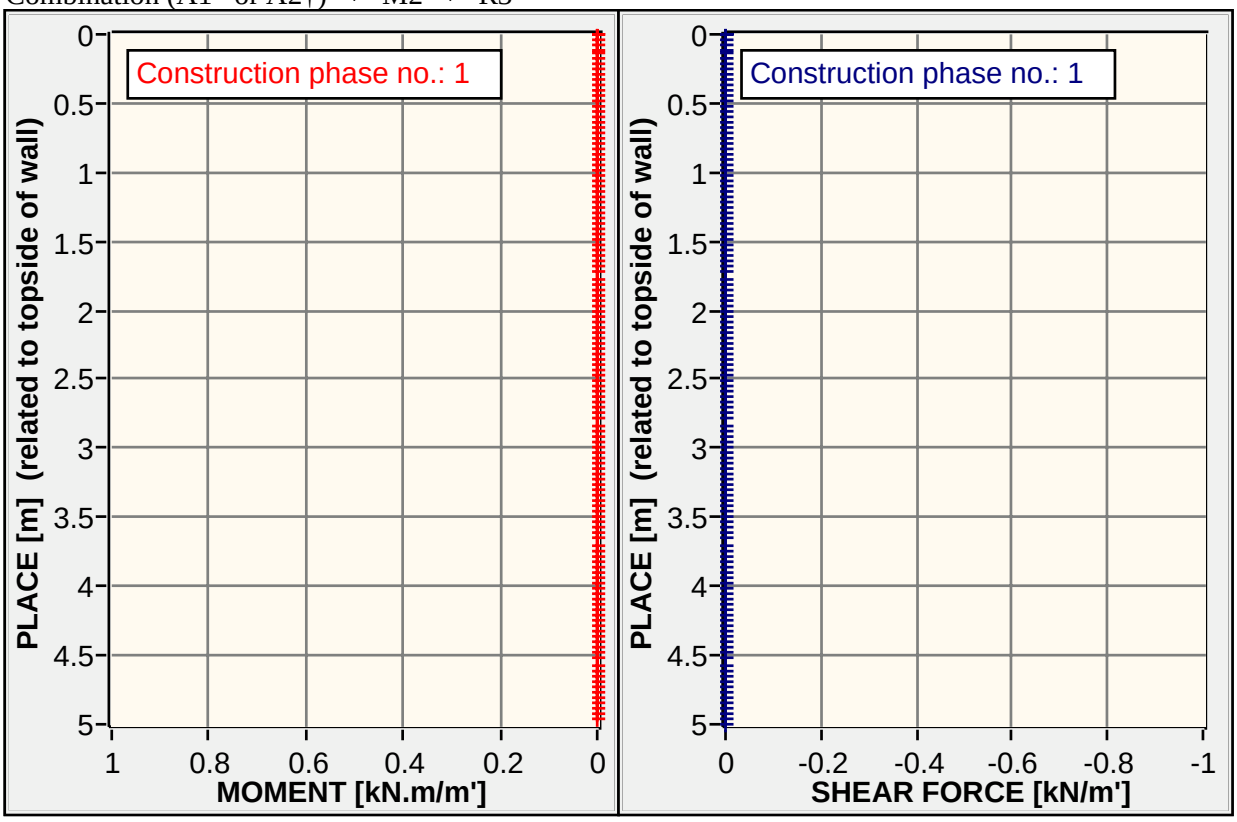
Maximum displacement (absolute):	2.2 [mm]
Maximum moment (absolute):	1.98 [kN.m/m']

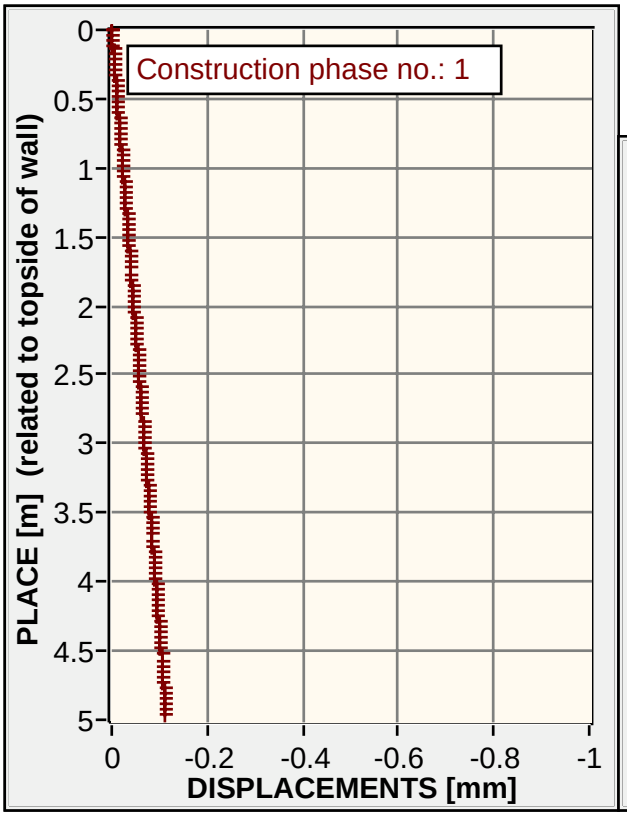
CONSTRUCTION PHASE no: 1

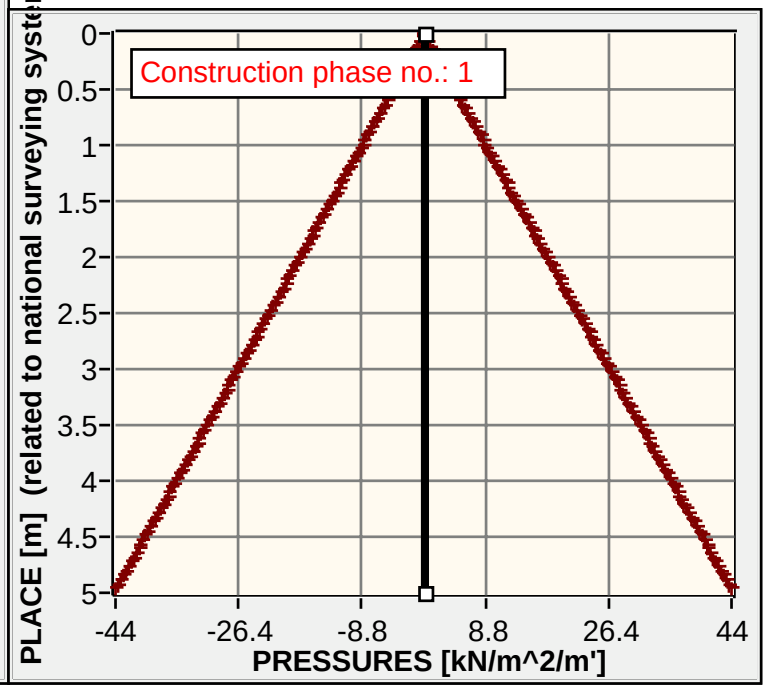
**** O U T P U T RESULTS OF THE CALCULATIONS ****

Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**-0.0**	0.000	0.00	-0.00	0.04	-	0.00	0.04	-	0.00
0.036	-0.0	0.000	0.00	-0.00	0.32	-	0.00	0.32	-	0.00
0.071	-0.0	0.000	0.00	-0.00	0.63	-	0.00	0.63	-	0.00
0.107	-0.0	0.000	0.00	-0.00	0.95	-	0.00	0.95	-	0.00
0.143	-0.0	0.000	0.00	-0.00	1.26	-	0.00	1.26	-	0.00
0.179	-0.0	0.000	0.00	-0.00	1.58	-	0.00	1.58	-	0.00
0.214	-0.0	0.000	0.00	-0.00	1.90	-	0.00	1.90	-	0.00
0.250	-0.0	0.000	0.00	-0.00	2.21	-	0.00	2.21	-	0.00
0.289	-0.0	0.000	0.00	-0.00	2.56	-	0.00	2.56	-	0.00
0.328	-0.0	0.000	0.00	-0.00	2.90	-	0.00	2.90	-	0.00
0.367	-0.0	0.000	0.00	-0.00	3.24	-	0.00	3.24	-	0.00
0.406	-0.0	0.000	0.00	-0.00	3.59	-	0.00	3.59	-	0.00
0.444	-0.0	0.000	0.00	-0.00	3.93	-	0.00	3.93	-	0.00
0.483	-0.0	0.000	0.00	-0.00	4.28	-	0.00	4.28	-	0.00
0.522	-0.0	0.000	0.00	-0.00	4.62	-	0.00	4.62	-	0.00
0.561	-0.0	0.000	0.00	-0.00	4.96	-	0.00	4.96	-	0.00
0.600	-0.0	0.000	0.00	-0.00	5.31	-	0.00	5.31	-	0.00
0.639	-0.0	0.000	0.00	-0.00	5.65	-	0.00	5.65	-	0.00
0.678	-0.0	0.000	0.00	-0.00	6.00	-	0.00	6.00	-	0.00
0.717	-0.0	0.000	0.00	-0.00	6.34	-	0.00	6.34	-	0.00
0.756	-0.0	0.000	0.00	-0.00	6.68	-	0.00	6.68	-	0.00
0.794	-0.0	0.000	0.00	-0.00	7.03	-	0.00	7.03	-	0.00
0.833	-0.0	0.000	0.00	-0.00	7.37	-	0.00	7.37	-	0.00
0.872	-0.0	0.000	0.00	-0.00	7.72	-	0.00	7.72	-	0.00
0.911	-0.0	0.000	0.00	-0.00	8.06	-	0.00	8.06	-	0.00
0.950	-0.0	0.000	0.00	-0.00	8.40	-	0.00	8.40	-	0.00
0.989	-0.0	0.000	0.00	-0.00	8.75	-	0.00	8.75	-	0.00
1.028	-0.0	0.000	0.00	-0.00	9.09	-	0.00	9.09	-	0.00
1.067	-0.0	0.000	0.00	-0.00	9.44	-	0.00	9.44	-	0.00
1.106	-0.0	0.000	0.00	-0.00	9.78	-	0.00	9.78	-	0.00
1.144	-0.0	0.000	0.00	-0.00	10.12	-	0.00	10.12	-	0.00
1.183	-0.0	0.000	0.00	-0.00	10.47	-	0.00	10.47	-	0.00
1.222	-0.0	0.000	0.00	-0.00	10.81	-	0.00	10.81	-	0.00
1.261	-0.0	0.000	0.00	-0.00	11.16	-	0.00	11.16	-	0.00
1.300	-0.0	0.000	0.00	-0.00	11.50	-	0.00	11.50	-	0.00
1.339	-0.0	0.000	0.00	-0.00	11.84	-	0.00	11.84	-	0.00
1.378	-0.0	0.000	0.00	-0.00	12.19	-	0.00	12.19	-	0.00

1.417	-0.0	0.000	0.00	-0.00	12.53	-	0.00	12.53	-	0.00
1.456	-0.0	0.000	0.00	-0.00	12.88	-	0.00	12.88	-	0.00
1.494	-0.0	0.000	0.00	-0.00	13.22	-	0.00	13.22	-	0.00
1.533	-0.0	0.000	0.00	-0.00	13.56	-	0.00	13.56	-	0.00
1.572	-0.0	0.000	0.00	-0.00	13.91	-	0.00	13.91	-	0.00
1.611	-0.0	0.000	0.00	-0.00	14.25	-	0.00	14.25	-	0.00
1.650	-0.0	0.000	0.00	-0.00	14.60	-	0.00	14.60	-	0.00
1.689	-0.0	0.000	0.00	-0.00	14.94	-	0.00	14.94	-	0.00
1.728	-0.0	0.000	0.00	-0.00	15.28	-	0.00	15.28	-	0.00
1.767	-0.0	0.000	0.00	-0.00	15.63	-	0.00	15.63	-	0.00
1.806	-0.0	0.000	0.00	-0.00	15.97	-	0.00	15.97	-	0.00
1.844	-0.0	0.000	0.00	-0.00	16.32	-	0.00	16.32	-	0.00
1.883	-0.0	0.000	0.00	-0.00	16.66	-	0.00	16.66	-	0.00
1.922	-0.0	0.000	0.00	-0.00	17.00	-	0.00	17.00	-	0.00
1.961	-0.0	0.000	0.00	-0.00	17.35	-	0.00	17.35	-	0.00
2.000	-0.0	0.000	0.00	-0.00	17.69	-	0.00	17.69	-	0.00
2.039	-0.0	0.000	0.00	-0.00	18.04	-	0.00	18.04	-	0.00
2.079	-0.0	0.000	0.00	-0.00	18.39	-	0.00	18.39	-	0.00
2.118	-0.0	0.000	0.00	-0.00	18.74	-	0.00	18.74	-	0.00
2.158	-0.0	0.000	0.00	-0.00	19.09	-	0.00	19.09	-	0.00
2.197	-0.1	0.000	0.00	-0.00	19.44	-	0.00	19.44	-	0.00
2.237	-0.1	0.000	0.00	-0.00	19.79	-	0.00	19.79	-	0.00
2.276	-0.1	0.000	0.00	-0.00	20.14	-	0.00	20.14	-	0.00
2.316	-0.1	0.000	0.00	-0.00	20.49	-	0.00	20.49	-	0.00
2.355	-0.1	0.000	0.00	-0.00	20.83	-	0.00	20.83	-	0.00
2.395	-0.1	0.000	0.00	-0.00	21.18	-	0.00	21.18	-	0.00
2.434	-0.1	0.000	0.00	-0.00	21.53	-	0.00	21.53	-	0.00
2.474	-0.1	0.000	0.00	-0.00	21.88	-	0.00	21.88	-	0.00
2.513	-0.1	0.000	0.00	-0.00	22.23	-	0.00	22.23	-	0.00
2.553	-0.1	0.000	0.00	-0.00	22.58	-	0.00	22.58	-	0.00
2.592	-0.1	0.000	0.00	-0.00	22.93	-	0.00	22.93	-	0.00
2.632	-0.1	0.000	0.00	-0.00	23.28	-	0.00	23.28	-	0.00
2.671	-0.1	0.000	0.00	-0.00	23.63	-	0.00	23.63	-	0.00
2.711	-0.1	0.000	0.00	-0.00	23.98	-	0.00	23.98	-	0.00
2.750	-0.1	0.000	0.00	-0.00	24.33	-	0.00	24.33	-	0.00
2.789	-0.1	0.000	0.00	-0.00	24.68	-	0.00	24.68	-	0.00
2.829	-0.1	0.000	0.00	-0.00	25.02	-	0.00	25.02	-	0.00
2.868	-0.1	0.000	0.00	-0.00	25.37	-	0.00	25.37	-	0.00
2.908	-0.1	0.000	0.00	-0.00	25.72	-	0.00	25.72	-	0.00
2.947	-0.1	0.000	0.00	-0.00	26.07	-	0.00	26.07	-	0.00
2.987	-0.1	0.000	0.00	-0.00	26.42	-	0.00	26.42	-	0.00
3.026	-0.1	0.000	0.00	-0.00	26.77	-	0.00	26.77	-	0.00
3.066	-0.1	0.000	0.00	-0.00	27.12	-	0.00	27.12	-	0.00
3.105	-0.1	0.000	0.00	-0.00	27.47	-	0.00	27.47	-	0.00
3.145	-0.1	0.000	0.00	-0.00	27.82	-	0.00	27.82	-	0.00
3.184	-0.1	0.000	0.00	-0.00	28.17	-	0.00	28.17	-	0.00
3.224	-0.1	0.000	0.00	-0.00	28.52	-	0.00	28.52	-	0.00
3.263	-0.1	0.000	0.00	-0.00	28.87	-	0.00	28.87	-	0.00
3.303	-0.1	0.000	0.00	-0.00	29.21	-	0.00	29.21	-	0.00
3.342	-0.1	0.000	0.00	-0.00	29.56	-	0.00	29.56	-	0.00
3.382	-0.1	0.000	0.00	-0.00	29.91	-	0.00	29.91	-	0.00
3.421	-0.1	0.000	0.00	-0.00	30.26	-	0.00	30.26	-	0.00
3.461	-0.1	0.000	0.00	-0.00	30.61	-	0.00	30.61	-	0.00
3.500	-0.1	0.000	0.00	-0.00	30.96	-	0.00	30.96	-	0.00
3.539	-0.1	0.000	0.00	-0.00	31.31	-	0.00	31.31	-	0.00
3.579	-0.1	0.000	0.00	-0.00	31.66	-	0.00	31.66	-	0.00
3.618	-0.1	0.000	0.00	-0.00	32.01	-	0.00	32.01	-	0.00
3.658	-0.1	0.000	0.00	-0.00	32.36	-	0.00	32.36	-	0.00
3.697	-0.1	0.000	0.00	-0.00	32.71	-	0.00	32.71	-	0.00
3.737	-0.1	0.000	0.00	-0.00	33.06	-	0.00	33.06	-	0.00
3.776	-0.1	0.000	0.00	-0.00	33.41	-	0.00	33.41	-	0.00
3.816	-0.1	0.000	0.00	-0.00	33.75	-	0.00	33.75	-	0.00
3.855	-0.1	0.000	0.00	-0.00	34.10	-	0.00	34.10	-	0.00
3.895	-0.1	0.000	0.00	-0.00	34.45	-	0.00	34.45	-	0.00
3.934	-0.1	0.000	0.00	-0.00	34.80	-	0.00	34.80	-	0.00
3.974	-0.1	0.000	0.00	-0.00	35.15	-	0.00	35.15	-	0.00
4.013	-0.1	0.000	0.00	-0.00	35.50	-	0.00	35.50	-	0.00
4.053	-0.1	0.000	0.00	-0.00	35.85	-	0.00	35.85	-	0.00
4.092	-0.1	0.000	0.00	-0.00	36.20	-	0.00	36.20	-	0.00
4.132	-0.1	0.000	0.00	-0.00	36.55	-	0.00	36.55	-	0.00
4.171	-0.1	0.000	0.00	-0.00	36.90	-	0.00	36.90	-	0.00
4.211	-0.1	0.000	0.00	-0.00	37.25	-	0.00	37.25	-	0.00
4.250	-0.1	0.000	0.00	-0.00	37.60	-	0.00	37.60	-	0.00
4.289	-0.1	0.000	0.00	-0.00	37.94	-	0.00	37.94	-	0.00

4.329	-0.1	0.000	0.00	-0.00	38.29	-	0.00	38.29	-	0.00
4.368	-0.1	0.000	0.00	-0.00	38.64	-	0.00	38.64	-	0.00
4.408	-0.1	0.000	0.00	-0.00	38.99	-	0.00	38.99	-	0.00
4.447	-0.1	0.000	0.00	-0.00	39.34	-	0.00	39.34	-	0.00
4.487	-0.1	0.000	0.00	-0.00	39.69	-	0.00	39.69	-	0.00
4.526	-0.1	0.000	0.00	-0.00	40.04	-	0.00	40.04	-	0.00
4.566	-0.1	0.000	0.00	-0.00	40.39	-	0.00	40.39	-	0.00
4.605	-0.1	0.000	0.00	-0.00	40.74	-	0.00	40.74	-	0.00
4.645	-0.1	0.000	0.00	-0.00	41.09	-	0.00	41.09	-	0.00
4.684	-0.1	0.000	0.00	-0.00	41.44	-	0.00	41.44	-	0.00
4.724	-0.1	0.000	0.00	-0.00	41.79	-	0.00	41.79	-	0.00
4.763	-0.1	0.000	0.00	-0.00	42.13	-	0.00	42.13	-	0.00
4.803	-0.1	0.000	0.00	-0.00	42.48	-	0.00	42.48	-	0.00
4.842	-0.1	0.000	0.00	-0.00	42.83	-	0.00	42.83	-	0.00
4.882	-0.1	0.000	0.00	-0.00	43.18	-	0.00	43.18	-	0.00
4.921	-0.1	0.000	0.00	-0.00	43.53	-	0.00	43.53	-	0.00
4.961	-0.1	0.000	0.00	-0.00	43.88	-	0.00	43.88	-	0.00
5.000	-0.1	0.000	0.00	0.00	44.23	-	0.00	44.23	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: -0.0 [mm] at X= 0.00 [m]
Largest negative displacement: -0.1 [mm] at X= 5.00 [m]
Largest bending stress: 0.000 [N/mm^2] at X= 1.49 [m]
SHEET WALL bending; u.c.-value: **0.000**
Largest positive moment: 0.00 [kN.m/m'] at X= 1.49 [m]
Largest negative moment: 0.00 [kN.m/m'] at X= 5.00 [m]
Largest positive shear force: 0.00 [kN/m'] at X= 5.00 [m]
Largest negative shear force: -0.00 [kN/m'] at X= 3.07 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 52.686 [kN/m']
Max. total Neutral force: 112.010 [kN/m']
Max. total Passive force: 1044.580 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 110.574 [kN/m']
Total horizontal force on sheet pile (water+soil): 110.574 [kN/m']

-- RIGHT:

Max. total Active force: 50.875 [kN/m']
Max. total Neutral force: 109.138 [kN/m']
Max. total Passive force: 1020.157 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 110.574 [kN/m']
Total horizontal force on sheet pile (water+soil): 110.574 [kN/m']
The passive zone is the RIGHT side mobilized for 10.84 %
Passive soil resistance; u.c.-value: **0.108**

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

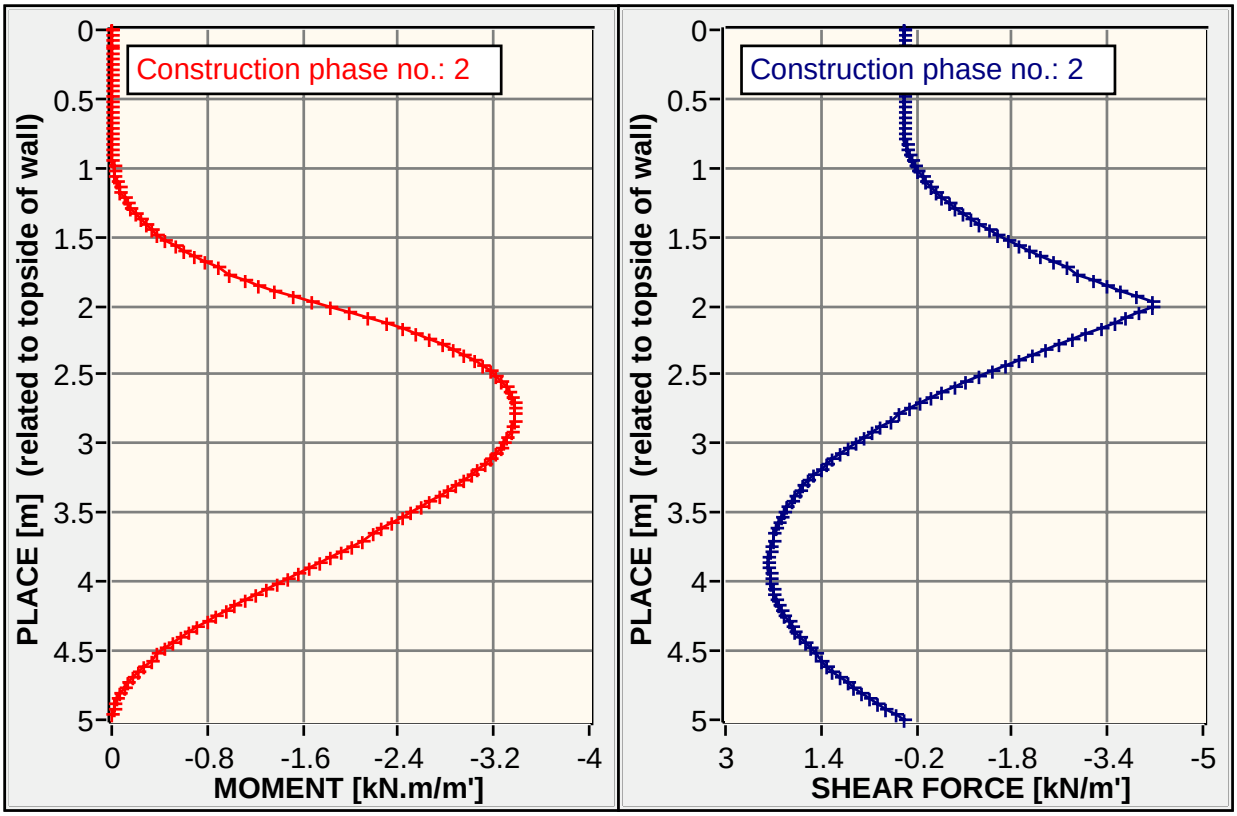
Vertical force along sheet pile wall LEFT: 0.019 [kN/m']
Vertical force along sheet pile wall RIGHT: -0.001 [kN/m']
Required point foundation resistance sheet wall 0.018 [kN/m']

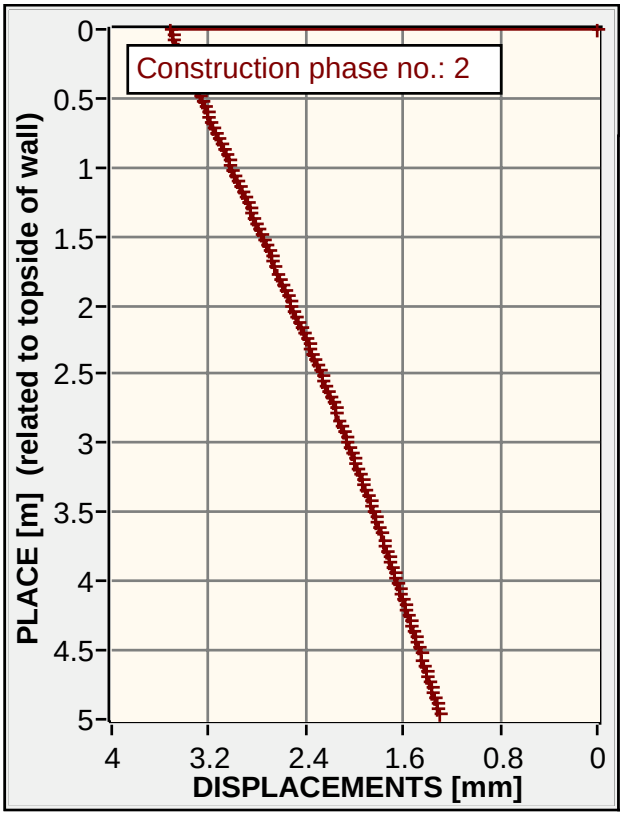
CONSTRUCTION PHASE no: 2

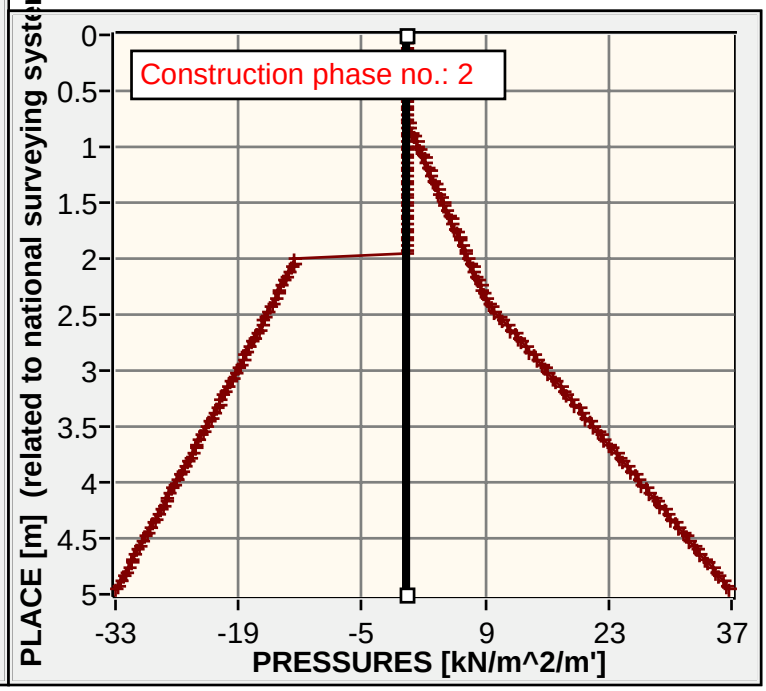
** O U T P U T RESULTS OF THE CALCULATIONS **

Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**3.5**	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.036	3.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.071	3.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.107	3.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.143	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00

0.179	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.214	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.250	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.289	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.328	3.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.367	3.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.406	3.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.444	3.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.483	3.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.522	3.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.561	3.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.600	3.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.639	3.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.678	3.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.717	3.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.756	3.1	0.000	-0.00	-0.00	0.00	-	0.00	0.04	A	0.00
0.794	3.1	0.001	-0.00	-0.01	0.00	-	0.00	0.26	A	0.00
0.833	3.1	0.005	-0.00	-0.02	0.00	-	0.00	0.48	A	0.00
0.872	3.1	0.014	-0.00	-0.04	0.00	-	0.00	0.70	A	0.00
0.911	3.1	0.031	-0.00	-0.08	0.00	-	0.00	0.92	A	0.00
0.950	3.0	0.057	-0.01	-0.12	0.00	-	0.00	1.14	A	0.00
0.989	3.0	0.097	-0.01	-0.16	0.00	-	0.00	1.35	A	0.00
1.028	3.0	0.150	-0.02	-0.22	0.00	-	0.00	1.57	A	0.00
1.067	3.0	0.221	-0.03	-0.29	0.00	-	0.00	1.79	A	0.00
1.106	3.0	0.312	-0.04	-0.36	0.00	-	0.00	2.01	A	0.00
1.144	2.9	0.424	-0.06	-0.44	0.00	-	0.00	2.23	A	0.00
1.183	2.9	0.560	-0.08	-0.53	0.00	-	0.00	2.45	A	0.00
1.222	2.9	0.724	-0.10	-0.63	0.00	-	0.00	2.67	A	0.00
1.261	2.9	0.916	-0.13	-0.74	0.00	-	0.00	2.89	A	0.00
1.300	2.9	1.139	-0.16	-0.86	0.00	-	0.00	3.11	A	0.00
1.339	2.8	1.397	-0.19	-0.98	0.00	-	0.00	3.32	A	0.00
1.378	2.8	1.690	-0.23	-1.12	0.00	-	0.00	3.54	A	0.00
1.417	2.8	2.022	-0.28	-1.26	0.00	-	0.00	3.76	A	0.00
1.456	2.8	2.396	-0.33	-1.41	0.00	-	0.00	3.98	A	0.00
1.494	2.8	2.812	-0.39	-1.57	0.00	-	0.00	4.20	A	0.00
1.533	2.7	3.274	-0.46	-1.74	0.00	-	0.00	4.42	A	0.00
1.572	2.7	3.784	-0.53	-1.91	0.00	-	0.00	4.64	A	0.00
1.611	2.7	4.345	-0.60	-2.10	0.00	-	0.00	4.86	A	0.00
1.650	2.7	4.958	-0.69	-2.29	0.00	-	0.00	5.08	A	0.00
1.689	2.7	5.627	-0.78	-2.49	0.00	-	0.00	5.29	A	0.00
1.728	2.7	6.353	-0.88	-2.70	0.00	-	0.00	5.51	A	0.00
1.767	2.6	7.140	-0.99	-2.92	0.00	-	0.00	5.73	A	0.00
1.806	2.6	7.988	-1.11	-3.15	0.00	-	0.00	5.95	A	0.00
1.844	2.6	8.902	-1.24	-3.38	0.00	-	0.00	6.17	A	0.00
1.883	2.6	9.882	-1.37	-3.63	0.00	-	0.00	6.39	A	0.00
1.922	2.6	10.932	-1.52	-3.88	0.00	-	0.00	6.61	A	0.00
1.961	2.5	12.054	-1.68	-4.14	0.00	-	0.00	6.83	A	0.00
2.000	2.5	13.216	-1.84	-4.17	12.59	-	0.00	7.05	A	0.00
2.039	2.5	14.368	-2.00	-3.95	12.84	-	0.00	7.27	A	0.00
2.079	2.5	15.457	-2.15	-3.73	13.10	-	0.00	7.49	A	0.00
2.118	2.5	16.483	-2.29	-3.50	13.36	-	0.00	7.71	A	0.00
2.158	2.4	17.446	-2.42	-3.28	13.62	-	0.00	7.93	A	0.00
2.197	2.4	18.345	-2.55	-3.06	13.87	-	0.00	8.16	A	0.00
2.237	2.4	19.181	-2.67	-2.83	14.13	-	0.00	8.38	A	0.00
2.276	2.4	19.951	-2.77	-2.60	14.39	-	0.00	8.60	A	0.00
2.316	2.4	20.657	-2.87	-2.37	14.65	-	0.00	8.82	A	0.00
2.355	2.3	21.297	-2.96	-2.14	14.91	-	0.00	9.05	A	0.00
2.395	2.3	21.872	-3.04	-1.91	15.17	-	0.00	9.27	-	0.00
2.434	2.3	22.381	-3.11	-1.68	15.43	-	0.00	9.71	-	0.00
2.474	2.3	22.826	-3.17	-1.46	15.69	-	0.00	10.15	-	0.00
2.513	2.3	23.208	-3.23	-1.24	15.96	-	0.00	10.58	-	0.00
2.553	2.3	23.531	-3.27	-1.03	16.22	-	0.00	11.02	-	0.00
2.592	2.2	23.795	-3.31	-0.83	16.48	-	0.00	11.46	-	0.00
2.632	2.2	24.003	-3.34	-0.64	16.75	-	0.00	11.89	-	0.00
2.671	2.2	24.156	-3.36	-0.45	17.01	-	0.00	12.32	-	0.00
2.711	2.2	24.257	-3.37	-0.27	17.27	-	0.00	12.76	-	0.00
2.750	2.2	24.307	-3.38	-0.09	17.54	-	0.00	13.19	-	0.00
2.789	2.1	24.309	-3.38	0.08	17.80	-	0.00	13.62	-	0.00
2.829	2.1	24.263	-3.37	0.24	18.07	-	0.00	14.06	-	0.00
2.868	2.1	24.173	-3.36	0.39	18.34	-	0.00	14.49	-	0.00
2.908	2.1	24.039	-3.34	0.54	18.61	-	0.00	14.92	-	0.00
2.947	2.1	23.864	-3.32	0.69	18.87	-	0.00	15.35	-	0.00
2.987	2.1	23.650	-3.29	0.82	19.14	-	0.00	15.78	-	0.00
3.026	2.0	23.398	-3.25	0.95	19.41	-	0.00	16.21	-	0.00

3.066	2.0	23.110	-3.21	1.07	19.68	-	0.00	16.64	-	0.00
3.105	2.0	22.788	-3.17	1.19	19.95	-	0.00	17.07	-	0.00
3.145	2.0	22.434	-3.12	1.30	20.22	-	0.00	17.49	-	0.00
3.184	2.0	22.049	-3.06	1.41	20.49	-	0.00	17.92	-	0.00
3.224	2.0	21.635	-3.01	1.50	20.76	-	0.00	18.35	-	0.00
3.263	1.9	21.194	-2.95	1.60	21.03	-	0.00	18.78	-	0.00
3.303	1.9	20.728	-2.88	1.68	21.31	-	0.00	19.20	-	0.00
3.342	1.9	20.238	-2.81	1.76	21.58	-	0.00	19.63	-	0.00
3.382	1.9	19.727	-2.74	1.84	21.85	-	0.00	20.05	-	0.00
3.421	1.9	19.195	-2.67	1.90	22.13	-	0.00	20.48	-	0.00
3.461	1.9	18.645	-2.59	1.97	22.40	-	0.00	20.90	-	0.00
3.500	1.8	18.078	-2.51	2.02	22.67	-	0.00	21.33	-	0.00
3.539	1.8	17.496	-2.43	2.07	22.95	-	0.00	21.75	-	0.00
3.579	1.8	16.900	-2.35	2.12	23.23	-	0.00	22.17	-	0.00
3.618	1.8	16.292	-2.26	2.16	23.50	-	0.00	22.59	-	0.00
3.658	1.8	15.675	-2.18	2.19	23.78	-	0.00	23.02	-	0.00
3.697	1.8	15.049	-2.09	2.22	24.05	-	0.00	23.44	-	0.00
3.737	1.8	14.416	-2.00	2.24	24.33	-	0.00	23.86	-	0.00
3.776	1.7	13.777	-1.92	2.25	24.61	-	0.00	24.28	-	0.00
3.816	1.7	13.135	-1.83	2.26	24.88	-	0.00	24.70	-	0.00
3.855	1.7	12.491	-1.74	2.27	25.16	-	0.00	25.12	-	0.00
3.895	1.7	11.847	-1.65	2.27	25.44	-	0.00	25.54	-	0.00
3.934	1.7	11.204	-1.56	2.26	25.72	-	0.00	25.96	-	0.00
3.974	1.7	10.563	-1.47	2.25	26.00	-	0.00	26.38	-	0.00
4.013	1.6	9.927	-1.38	2.23	26.27	-	0.00	26.80	-	0.00
4.053	1.6	9.297	-1.29	2.21	26.55	-	0.00	27.22	-	0.00
4.092	1.6	8.674	-1.21	2.18	26.83	-	0.00	27.64	-	0.00
4.132	1.6	8.060	-1.12	2.14	27.11	-	0.00	28.06	-	0.00
4.171	1.6	7.457	-1.04	2.10	27.39	-	0.00	28.48	-	0.00
4.211	1.6	6.867	-0.95	2.06	27.67	-	0.00	28.90	-	0.00
4.250	1.6	6.290	-0.87	2.00	27.95	-	0.00	29.32	-	0.00
4.289	1.5	5.728	-0.80	1.95	28.23	-	0.00	29.74	-	0.00
4.329	1.5	5.183	-0.72	1.89	28.51	-	0.00	30.15	-	0.00
4.368	1.5	4.657	-0.65	1.82	28.79	-	0.00	30.57	-	0.00
4.408	1.5	4.150	-0.58	1.74	29.07	-	0.00	30.99	-	0.00
4.447	1.5	3.665	-0.51	1.67	29.35	-	0.00	31.41	-	0.00
4.487	1.5	3.204	-0.45	1.58	29.63	-	0.00	31.83	-	0.00
4.526	1.5	2.767	-0.38	1.49	29.91	-	0.00	32.25	-	0.00
4.566	1.4	2.355	-0.33	1.40	30.19	-	0.00	32.66	-	0.00
4.605	1.4	1.972	-0.27	1.30	30.47	-	0.00	33.08	-	0.00
4.645	1.4	1.618	-0.22	1.19	30.75	-	0.00	33.50	-	0.00
4.684	1.4	1.295	-0.18	1.08	31.03	-	0.00	33.92	-	0.00
4.724	1.4	1.004	-0.14	0.96	31.32	-	0.00	34.33	-	0.00
4.763	1.4	0.746	-0.10	0.84	31.60	-	0.00	34.75	-	0.00
4.803	1.4	0.525	-0.07	0.72	31.88	-	0.00	35.17	-	0.00
4.842	1.3	0.340	-0.05	0.58	32.16	-	0.00	35.59	-	0.00
4.882	1.3	0.193	-0.03	0.44	32.44	-	0.00	36.00	-	0.00
4.921	1.3	0.087	-0.01	0.30	32.72	-	0.00	36.42	-	0.00
4.961	1.3	0.022	-0.00	0.15	33.00	-	0.00	36.84	-	0.00
5.000	1.3	0.000	0.00	0.00	33.28	-	0.00	37.26	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: 3.5 [mm] at X= 0.00 [m]
Largest negative displacement: 1.3 [mm] at X= 5.00 [m]
Largest bending stress: 24.309 [N/mm^2] at X= 2.79 [m]
SHEET WALL bending; u.c.-value: **0.068**
Largest positive moment: 0.00 [kN.m/m'] at X= 5.00 [m]
Largest negative moment: -3.38 [kN.m/m'] at X= 2.79 [m]
Largest positive shear force: 2.27 [kN/m'] at X= 3.86 [m]
Largest negative shear force: -4.17 [kN/m'] at X= 2.00 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****
-- LEFT:

Max. total Active force: 14.897 [kN/m']
Max. total Neutral force: 40.665 [kN/m']
Max. total Passive force: 398.549 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 68.539 [kN/m']

Total horizontal force on sheet pile (water+soil): 68.539 [kN/m']
The passive zone is at the LEFT side mobilized for 17.20 %

Passive soil resistance; u.c.-value: **0.172**

-- RIGHT:

Max. total Active force:	50.875 [kN/m']
Max. total Neutral force:	109.138 [kN/m']
Max. total Passive force:	1020.157 [kN/m']
Total force by water stresses:	0.000 [kN/m']
Total mobilized horizontal soil stresses:	68.541 [kN/m']
Total horizontal force on sheet pile (water+soil):	68.541 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

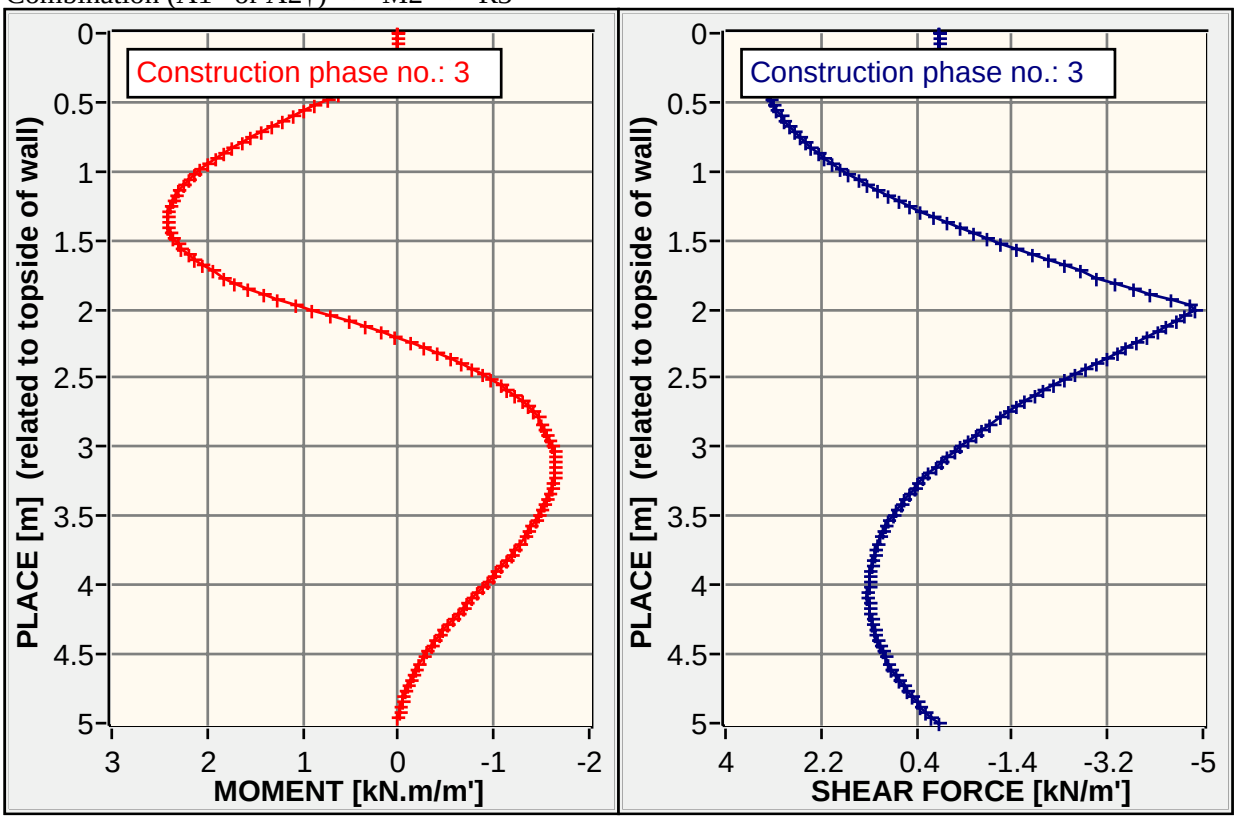
Vertical force along sheet pile wall LEFT:	-0.071 [kN/m']
Vertical force along sheet pile wall RIGHT:	1.591 [kN/m']
Required point foundation resistance sheet wall	1.520 [kN/m']

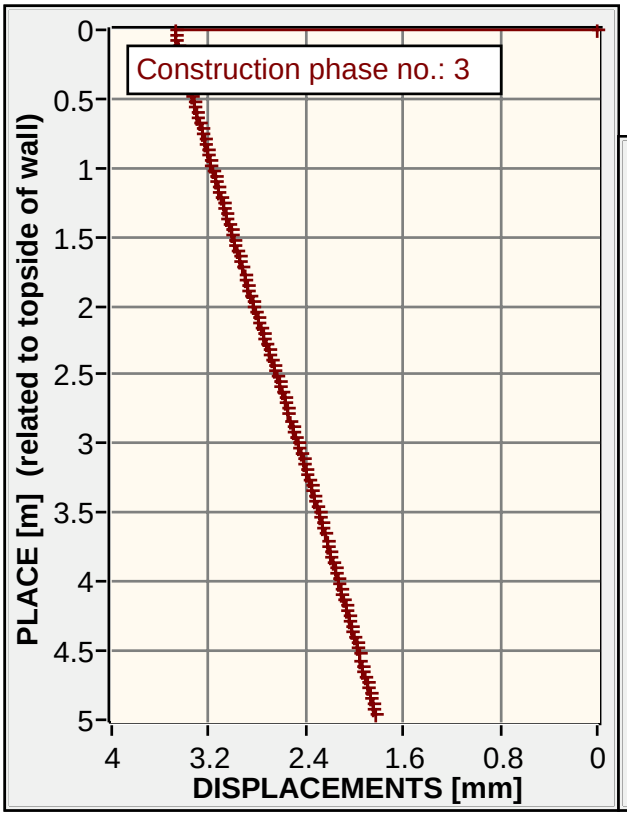
CONSTRUCTION PHASE no: 3

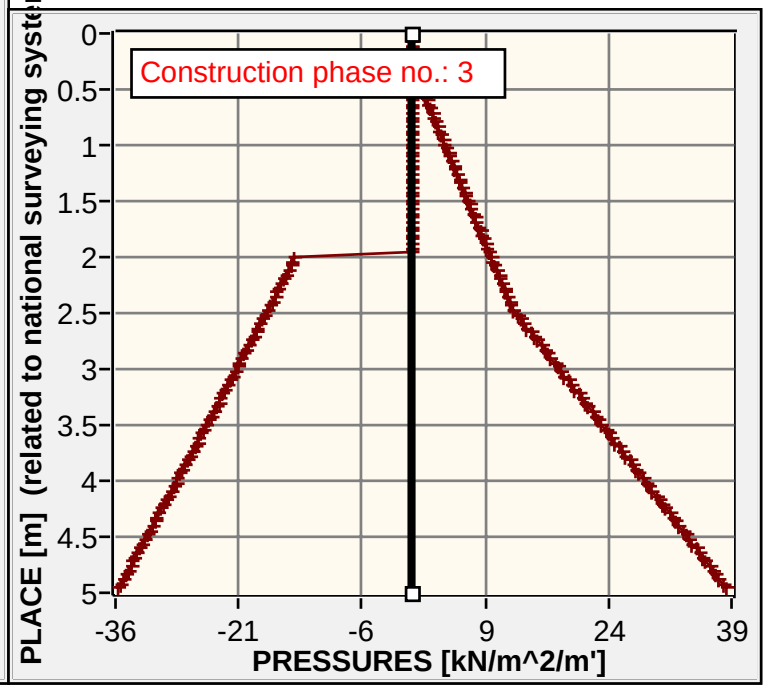
**** O U T P U T RESULTS OF THE CALCULATIONS ****

Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**3.5**	0.000	-0.00	-0.00	0.00	-	0.00	0.18	-	0.00
0.036	3.5	0.001	-0.00	-0.01	0.00	-	0.00	0.15	-	0.00
0.071	3.5	0.003	-0.00	-0.01	0.00	-	0.00	0.11	-	0.00
0.107	3.5	0.006	-0.00	-0.01	0.00	-	0.00	0.08	-	0.00
0.143	3.4	0.010	-0.00	-0.02	0.00	-	0.00	0.04	-	0.00
0.179	3.4	0.014	-0.00	-0.02	0.00	-	0.00	0.01	-	0.00
0.214	3.4	0.018	-0.00	-0.02	0.00	-	0.00	0.00	A	0.00
0.250	3.4	0.023	-0.00	3.27	0.00	-	0.00	0.00	A	0.00
0.289	3.4	0.890	0.12	3.26	0.00	-	0.00	0.08	A	0.00
0.328	3.4	1.802	0.25	3.26	0.00	-	0.00	0.30	A	0.00
0.367	3.4	2.711	0.38	3.24	0.00	-	0.00	0.52	A	0.00
0.406	3.4	3.614	0.50	3.22	0.00	-	0.00	0.74	A	0.00
0.444	3.3	4.509	0.63	3.18	0.00	-	0.00	0.96	A	0.00
0.483	3.3	5.394	0.75	3.14	0.00	-	0.00	1.18	A	0.00
0.522	3.3	6.265	0.87	3.09	0.00	-	0.00	1.39	A	0.00
0.561	3.3	7.122	0.99	3.03	0.00	-	0.00	1.61	A	0.00
0.600	3.3	7.961	1.11	2.97	0.00	-	0.00	1.83	A	0.00
0.639	3.3	8.780	1.22	2.89	0.00	-	0.00	2.05	A	0.00
0.678	3.3	9.577	1.33	2.81	0.00	-	0.00	2.27	A	0.00
0.717	3.3	10.349	1.44	2.71	0.00	-	0.00	2.49	A	0.00
0.756	3.3	11.094	1.54	2.61	0.00	-	0.00	2.71	A	0.00
0.794	3.2	11.810	1.64	2.50	0.00	-	0.00	2.93	A	0.00
0.833	3.2	12.494	1.74	2.39	0.00	-	0.00	3.15	A	0.00
0.872	3.2	13.143	1.83	2.26	0.00	-	0.00	3.36	A	0.00
0.911	3.2	13.756	1.91	2.12	0.00	-	0.00	3.58	A	0.00
0.950	3.2	14.330	1.99	1.98	0.00	-	0.00	3.80	A	0.00
0.989	3.2	14.863	2.07	1.83	0.00	-	0.00	4.02	A	0.00
1.028	3.2	15.351	2.13	1.67	0.00	-	0.00	4.24	A	0.00
1.067	3.2	15.794	2.20	1.50	0.00	-	0.00	4.46	A	0.00
1.106	3.1	16.188	2.25	1.32	0.00	-	0.00	4.68	A	0.00
1.144	3.1	16.532	2.30	1.13	0.00	-	0.00	4.90	A	0.00
1.183	3.1	16.822	2.34	0.94	0.00	-	0.00	5.12	A	0.00
1.222	3.1	17.056	2.37	0.74	0.00	-	0.00	5.33	A	0.00
1.261	3.1	17.232	2.40	0.53	0.00	-	0.00	5.55	A	0.00
1.300	3.1	17.348	2.41	0.31	0.00	-	0.00	5.77	A	0.00
1.339	3.1	17.401	2.42	0.08	0.00	-	0.00	5.99	A	0.00
1.378	3.0	17.389	2.42	-0.16	0.00	-	0.00	6.21	A	0.00

1.417	3.0	17.310	2.41	-0.41	0.00	-	0.00	6.43	A	0.00
1.456	3.0	17.160	2.39	-0.66	0.00	-	0.00	6.65	A	0.00
1.494	3.0	16.938	2.35	-0.92	0.00	-	0.00	6.87	A	0.00
1.533	3.0	16.642	2.31	-1.19	0.00	-	0.00	7.09	A	0.00
1.572	3.0	16.268	2.26	-1.47	0.00	-	0.00	7.30	A	0.00
1.611	3.0	15.815	2.20	-1.76	0.00	-	0.00	7.52	A	0.00
1.650	3.0	15.280	2.12	-2.06	0.00	-	0.00	7.74	A	0.00
1.689	2.9	14.661	2.04	-2.37	0.00	-	0.00	7.96	A	0.00
1.728	2.9	13.955	1.94	-2.68	0.00	-	0.00	8.18	A	0.00
1.767	2.9	13.160	1.83	-3.00	0.00	-	0.00	8.40	A	0.00
1.806	2.9	12.274	1.71	-3.33	0.00	-	0.00	8.62	A	0.00
1.844	2.9	11.294	1.57	-3.67	0.00	-	0.00	8.84	A	0.00
1.883	2.9	10.218	1.42	-4.02	0.00	-	0.00	9.06	A	0.00
1.922	2.9	9.043	1.26	-4.38	0.00	-	0.00	9.27	A	0.00
1.961	2.8	7.768	1.08	-4.74	0.00	-	0.00	9.49	A	0.00
2.000	2.8	6.427	0.89	-4.84	14.13	-	0.00	9.71	A	0.00
2.039	2.8	5.078	0.71	-4.66	14.42	-	0.00	9.93	A	0.00
2.079	2.8	3.779	0.53	-4.49	14.70	-	0.00	10.16	A	0.00
2.118	2.8	2.531	0.35	-4.31	14.98	-	0.00	10.38	A	0.00
2.158	2.8	1.334	0.19	-4.12	15.26	-	0.00	10.60	A	0.00
2.197	2.8	0.190	0.03	-3.94	15.54	-	0.00	10.82	A	0.00
2.237	2.7	0.902	-0.13	-3.75	15.82	-	0.00	11.04	A	0.00
2.276	2.7	1.940	-0.27	-3.56	16.10	-	0.00	11.27	A	0.00
2.316	2.7	2.924	-0.41	-3.37	16.38	-	0.00	11.49	A	0.00
2.355	2.7	3.853	-0.54	-3.17	16.67	-	0.00	11.71	A	0.00
2.395	2.7	4.726	-0.66	-2.98	16.95	-	0.00	11.93	A	0.00
2.434	2.7	5.543	-0.77	-2.78	17.23	-	0.00	12.16	A	0.00
2.474	2.7	6.303	-0.88	-2.58	17.51	-	0.00	12.47	-	0.00
2.513	2.6	7.008	-0.97	-2.38	17.79	-	0.00	12.88	-	0.00
2.553	2.6	7.657	-1.06	-2.19	18.07	-	0.00	13.30	-	0.00
2.592	2.6	8.252	-1.15	-2.00	18.36	-	0.00	13.72	-	0.00
2.632	2.6	8.796	-1.22	-1.82	18.64	-	0.00	14.13	-	0.00
2.671	2.6	9.288	-1.29	-1.65	18.92	-	0.00	14.55	-	0.00
2.711	2.6	9.732	-1.35	-1.48	19.20	-	0.00	14.96	-	0.00
2.750	2.6	10.129	-1.41	-1.31	19.49	-	0.00	15.38	-	0.00
2.789	2.5	10.479	-1.46	-1.15	19.77	-	0.00	15.79	-	0.00
2.829	2.5	10.785	-1.50	-1.00	20.05	-	0.00	16.21	-	0.00
2.868	2.5	11.047	-1.54	-0.85	20.34	-	0.00	16.62	-	0.00
2.908	2.5	11.268	-1.57	-0.71	20.62	-	0.00	17.04	-	0.00
2.947	2.5	11.449	-1.59	-0.57	20.91	-	0.00	17.45	-	0.00
2.987	2.5	11.591	-1.61	-0.43	21.19	-	0.00	17.87	-	0.00
3.026	2.5	11.696	-1.63	-0.31	21.48	-	0.00	18.28	-	0.00
3.066	2.4	11.765	-1.64	-0.18	21.76	-	0.00	18.69	-	0.00
3.105	2.4	11.800	-1.64	-0.06	22.05	-	0.00	19.11	-	0.00
3.145	2.4	11.802	-1.64	0.05	22.33	-	0.00	19.52	-	0.00
3.184	2.4	11.772	-1.64	0.16	22.62	-	0.00	19.93	-	0.00
3.224	2.4	11.712	-1.63	0.26	22.90	-	0.00	20.34	-	0.00
3.263	2.4	11.623	-1.62	0.36	23.19	-	0.00	20.76	-	0.00
3.303	2.4	11.508	-1.60	0.45	23.47	-	0.00	21.17	-	0.00
3.342	2.3	11.366	-1.58	0.54	23.76	-	0.00	21.58	-	0.00
3.382	2.3	11.200	-1.56	0.63	24.05	-	0.00	21.99	-	0.00
3.421	2.3	11.011	-1.53	0.70	24.34	-	0.00	22.40	-	0.00
3.461	2.3	10.800	-1.50	0.78	24.62	-	0.00	22.81	-	0.00
3.500	2.3	10.569	-1.47	0.85	24.91	-	0.00	23.22	-	0.00
3.539	2.3	10.319	-1.43	0.91	25.20	-	0.00	23.64	-	0.00
3.579	2.3	10.051	-1.40	0.97	25.49	-	0.00	24.05	-	0.00
3.618	2.3	9.767	-1.36	1.03	25.78	-	0.00	24.46	-	0.00
3.658	2.2	9.469	-1.32	1.08	26.06	-	0.00	24.87	-	0.00
3.697	2.2	9.157	-1.27	1.12	26.35	-	0.00	25.27	-	0.00
3.737	2.2	8.833	-1.23	1.16	26.64	-	0.00	25.68	-	0.00
3.776	2.2	8.498	-1.18	1.20	26.93	-	0.00	26.09	-	0.00
3.816	2.2	8.154	-1.13	1.23	27.22	-	0.00	26.50	-	0.00
3.855	2.2	7.802	-1.08	1.25	27.51	-	0.00	26.91	-	0.00
3.895	2.2	7.443	-1.03	1.27	27.80	-	0.00	27.32	-	0.00
3.934	2.2	7.078	-0.98	1.29	28.09	-	0.00	27.73	-	0.00
3.974	2.1	6.710	-0.93	1.30	28.38	-	0.00	28.14	-	0.00
4.013	2.1	6.339	-0.88	1.31	28.67	-	0.00	28.54	-	0.00
4.053	2.1	5.966	-0.83	1.31	28.96	-	0.00	28.95	-	0.00
4.092	2.1	5.594	-0.78	1.31	29.25	-	0.00	29.36	-	0.00
4.132	2.1	5.222	-0.73	1.30	29.54	-	0.00	29.77	-	0.00
4.171	2.1	4.853	-0.67	1.29	29.83	-	0.00	30.18	-	0.00
4.211	2.1	4.488	-0.62	1.28	30.12	-	0.00	30.58	-	0.00
4.250	2.1	4.128	-0.57	1.26	30.41	-	0.00	30.99	-	0.00
4.289	2.0	3.775	-0.52	1.23	30.70	-	0.00	31.40	-	0.00

4.329	2.0	3.430	-0.48	1.20	31.00	-	0.00	31.81	-	0.00
4.368	2.0	3.093	-0.43	1.17	31.29	-	0.00	32.21	-	0.00
4.408	2.0	2.767	-0.38	1.13	31.58	-	0.00	32.62	-	0.00
4.447	2.0	2.452	-0.34	1.09	31.87	-	0.00	33.03	-	0.00
4.487	2.0	2.151	-0.30	1.04	32.16	-	0.00	33.43	-	0.00
4.526	2.0	1.864	-0.26	0.98	32.45	-	0.00	33.84	-	0.00
4.566	2.0	1.592	-0.22	0.93	32.74	-	0.00	34.25	-	0.00
4.605	1.9	1.337	-0.19	0.87	33.04	-	0.00	34.65	-	0.00
4.645	1.9	1.100	-0.15	0.80	33.33	-	0.00	35.06	-	0.00
4.684	1.9	0.883	-0.12	0.73	33.62	-	0.00	35.47	-	0.00
4.724	1.9	0.687	-0.10	0.65	33.91	-	0.00	35.87	-	0.00
4.763	1.9	0.512	-0.07	0.57	34.20	-	0.00	36.28	-	0.00
4.803	1.9	0.361	-0.05	0.49	34.49	-	0.00	36.69	-	0.00
4.842	1.9	0.234	-0.03	0.40	34.78	-	0.00	37.10	-	0.00
4.882	1.9	0.134	-0.02	0.31	35.08	-	0.00	37.50	-	0.00
4.921	1.8	0.060	-0.01	0.21	35.37	-	0.00	37.91	-	0.00
4.961	1.8	0.015	-0.00	0.11	35.66	-	0.00	38.32	-	0.00
5.000	1.8	0.000	0.00	0.00	35.95	-	0.00	38.72	-	0.00

Distance relative to top sheet pile wall !
Largest positive displacement: 3.5 [mm] at X= 0.00 [m]
Largest negative displacement: 1.8 [mm] at X= 5.00 [m]
Largest bending stress: 17.401 [N/mm^2] at X= 1.34 [m]
SHEET WALL bending; u.c.-value: **0.049**
Largest positive moment: 2.42 [kN.m/m'] at X= 1.34 [m]
Largest negative moment: -1.64 [kN.m/m'] at X= 3.14 [m]
Largest positive shear force: 3.27 [kN/m'] at X= 0.25 [m]
Largest negative shear force: -4.84 [kN/m'] at X= 2.00 [m]

Anchors at the RIGHT side:
Anchor- or strut-force (INCLINED) no. 1 : 7.766 [kN/m'] at X= 0.250 [m]
Normal force ANCHOR; u.c.-value: **0.006**

**** Specific numbers for horizontal stability of the soil (effective stresses) ****
-- LEFT:
Max. total Active force: 14.897 [kN/m']
Max. total Neutral force: 40.665 [kN/m']
Max. total Passive force: 398.549 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 75.154 [kN/m']
Total horizontal force on sheet pile (water+soil): 75.154 [kN/m']
The passive zone is at the LEFT side mobilized for 18.86 %
Passive soil resistance; u.c.-value: **0.189**

-- RIGHT:
Max. total Active force: 62.842 [kN/m']
Max. total Neutral force: 129.800 [kN/m']
Max. total Passive force: 1195.864 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 78.436 [kN/m']
Total horizontal force on sheet pile (water+soil): 78.436 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****
Vertical force along sheet pile wall LEFT: -0.084 [kN/m']
Vertical force along sheet pile wall RIGHT: 9.726 [kN/m']
Required point foundation resistance sheet wall 9.642 [kN/m']

*** Maximum values over ALL construction stages ***
Maximum displacement (absolute): 3.5 [mm]
Maximum moment (absolute): 3.38 [kN.m/m']
Maximal u.c-value SHEET WALL: **0.068**
Maximal u.c.-value ANCHOR(s): **0.006**
Maximal u.c.-value SOIL LEFT passive: **0.189**

***** End of the calculation**

ALLEGATO 2 - Sheet Pile Wall program (PCSheetPileWall)

Version: 1.36
Date is:lunedì/4 luglio/2016, at: 16.20 hour

Sheet pile wall with anchor bulkhead.

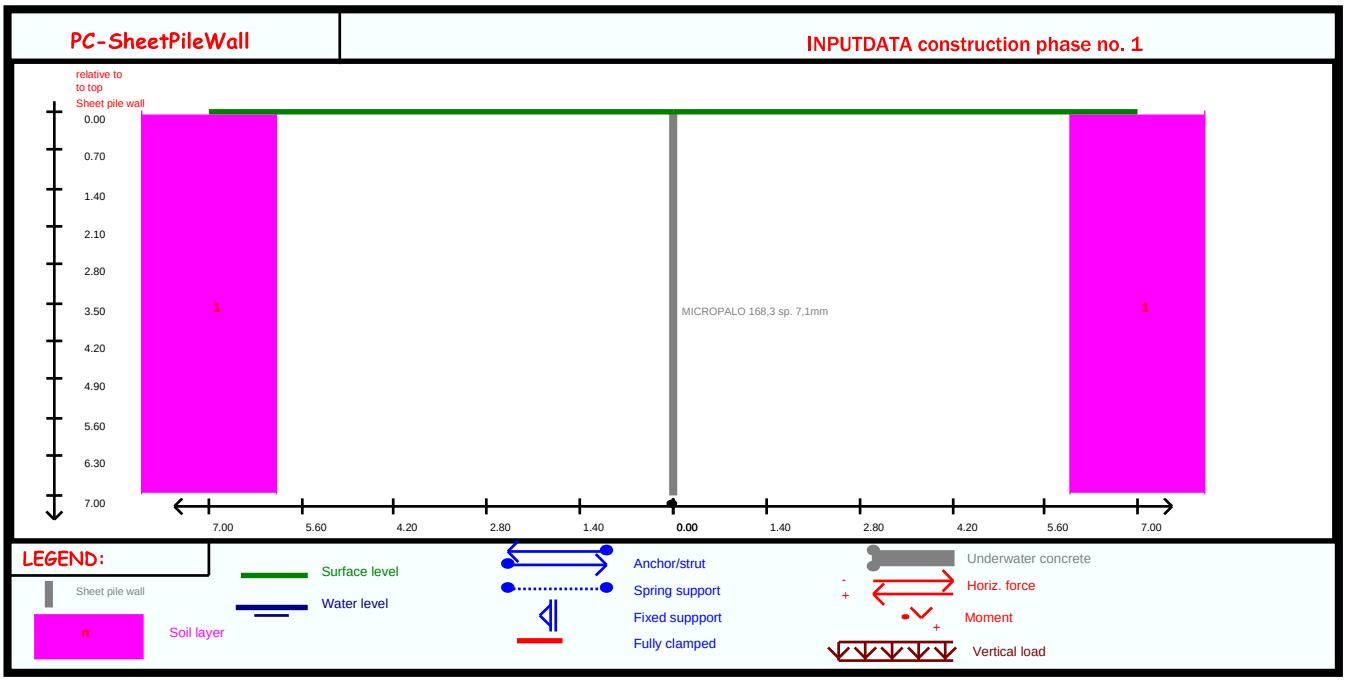
Saved as: C:\Users\pr43502\Desktop\mori.ShtOut

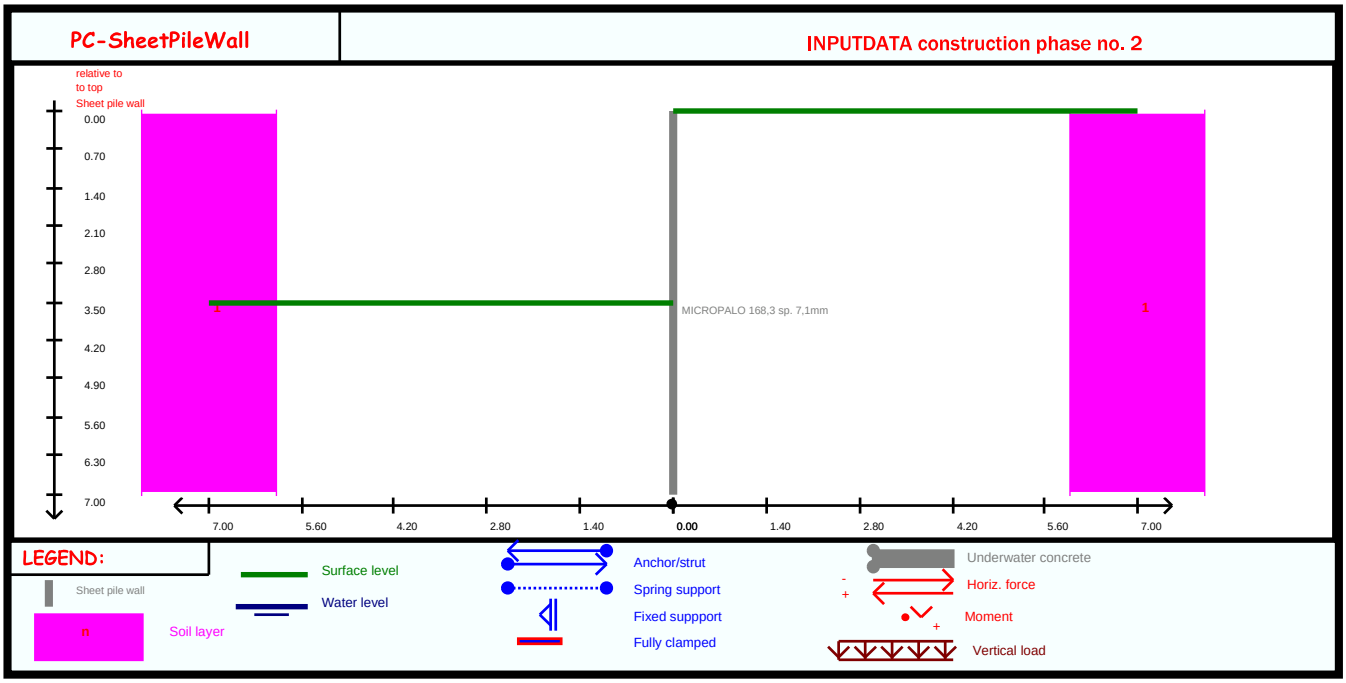
**** INPUT DATA ****

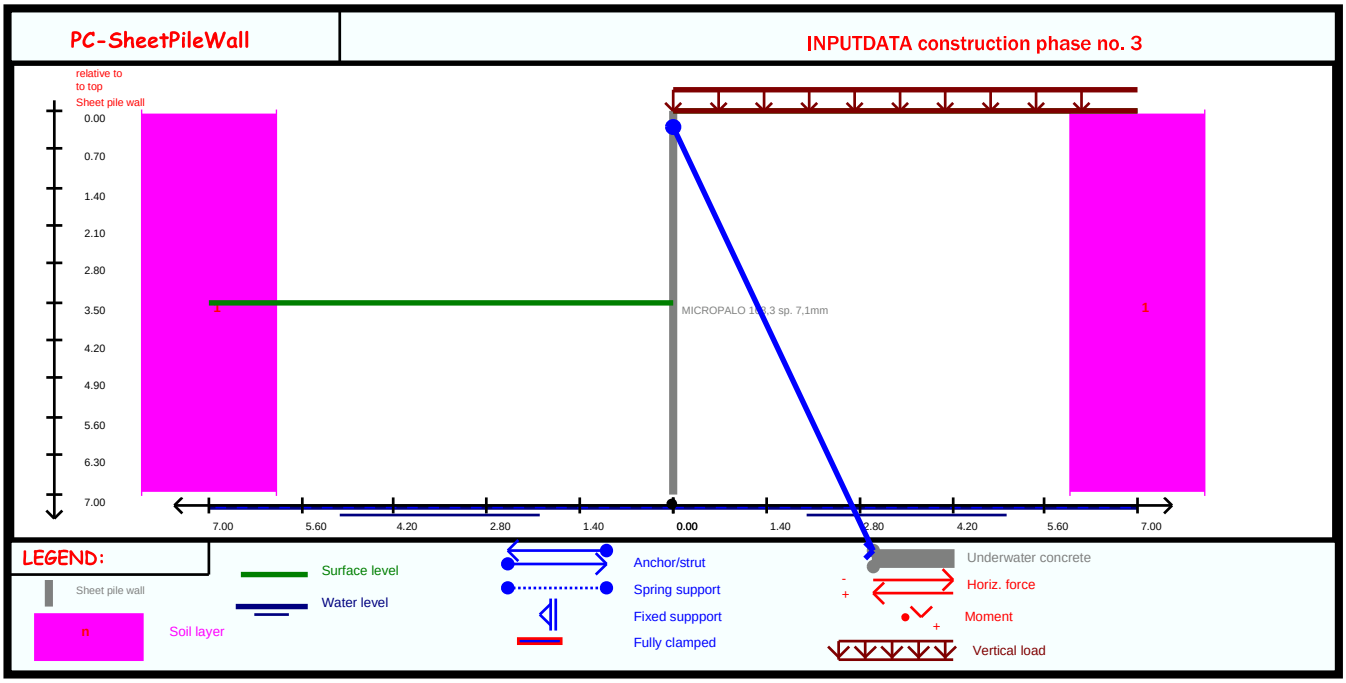
*** Partial factors according EN 1997-1 ***

- Partial factors for actions; Table A.3
A1: Permanent ` : 1.00
A1: Variable : 1.50
A2: Permanent ` : 1.00
A2: Variable : 1.30
- Partial factors for soil material parameters; Table A.4
M2: Angle of shearing resistance: 1.25
M2: Effective cohesion : 1.25
M2: Weight density : 1.00
- Partial soil resistance factors; Table A.13
R3: Bearing capacity : 1.00
R3: Sliding resistance : 1.00
R3: Earth resistance : 1.00
Steel sheet wall
Material coefficient: 1.00
Design approach: 3
Combination: (A1* or A2†) "+" M2 "+" R3
*on structural actions
†on geotechnical actions
For the limit situation ALL previous phases calculated WITH partial factors

--PROPERTIES OF THE SHEET PILE WALL







Top of the sheet pile wall is the zero-level (positive to below) !
Youngs-modulus E [kN/m^2] : 2.10000E+08

Section no.: 1

MICROPALO 168,3 sp. 7,1mm

Moment of inertia I [m^4]	:	2.33920E-04
Size elastic modulus [m^3/m']	:	1.39000E-04
Size plastic modulus [m^3/m']	:	3.69200E-04
Size yield stress [N/mm^2]	:	355
Stress checks with plastic modulus		
Length of the section [m]	:	7.000
Factor effective width [-]	:	1.000
Interlock factor [-]	:	1.000

--> Total length sheet pile wall [m] : 7.000

--ANCHORTYPES

Type nr.	Y-modulus [kN/m^2]	Area [m^2]	Yield force [kN/m']	Pre-stressing [kN/m']
1	2.10000E+08	3.59000E-03	1213.000	0.000

--SOILDATA BY LAYER

Stiffness of soil is described with one spring constant
Depth of the soil layers relative to the top of the sheet pile wall!
For soil in the passive condition CURVED slip planes will be taken into account

Soil layers at the left side.

No.	Top [m]	Vol.wght.DRY [kN/m^3]	Vol.wght.SAT [kN/m^3]	Phi ---------	Delta act. [degrees]	Delta pas. ----------	Cohesion [kN/m^2]
1	0.000	19.500	21.500	37.000	10.000	10.000	5.000

No.	Extra vertical strs. above-[kN/m^2]-under	Extra water strs. above-[kN/m^2]-under	Spring constant above-[kN/m^3]-under
1	0.000 0.000	0.000 0.000	5000 5000

Soil layers at the right side.

No.	Top [m]	Vol.wght.DRY [kN/m^3]	Vol.wght.SAT [kN/m^3]	Phi ---------	Delta act. [degrees]	Delta pas. ----------	Cohesion [kN/m^2]
1	0.000	19.000	21.500	37.000	10.000	10.000	5.000

No.	Extra vertical strs. above-[kN/m^2]-under	Extra water strs. above-[kN/m^2]-under	Spring constant above-[kN/m^3]-under
1	0.000 0.000	0.000 0.000	5000 5000

Volume weight (ground)water [kN/m^3]: 9.810

***CONSTRUCTION STAGE no. 1

--LEVELS

Levels relative to the top of the sheet pile wall (positive downwards).

Surface level left side [m] : 0.000
Surface level right side [m] : 0.000

LEFT side
Water level [m] : 20.000
Variable part (ground) water level [m] : 0.000
RIGHT side
Water level [m] : 20.000
Variable part (ground) water level [m] : 0.000

***CONSTRUCTION STAGE no. 2

--LEVELS

Levels relative to the top of the sheet pile wall (positive downwards).

```
Surface level left side [m]              :    3.500
Surface level right side [m]             :    0.000

LEFT side
Water level     [m]                      :   20.000
Variable part (ground) water level [m]   :    0.000
RIGHT side
Water level   [m]                        :   20.000
Variable part (ground) water level [m]   :    0.000
```

*** C O N S T R U C T I O N S T A G E no. 3

-- L E V E L S

Levels relative to the top of the sheet pile wall (positive downwards).

```
Surface level left side [m]              :    3.500
Surface level right side [m]             :    0.000

LEFT side
Water level     [m]                      :   20.000
Variable part (ground) water level [m]   :    0.000
RIGHT side
Water level   [m]                        :   20.000
Variable part (ground) water level [m]   :    0.000
```

-- A N C H O R S at the RIGHT side --

Place relative to the top of the sheet pile wall

Type no.	Depth [m]	Length [m]	Angle [degrees]
1	0.250	8.000	65.000

-- V E R T I C A L L O A D S RIGHT SIDE

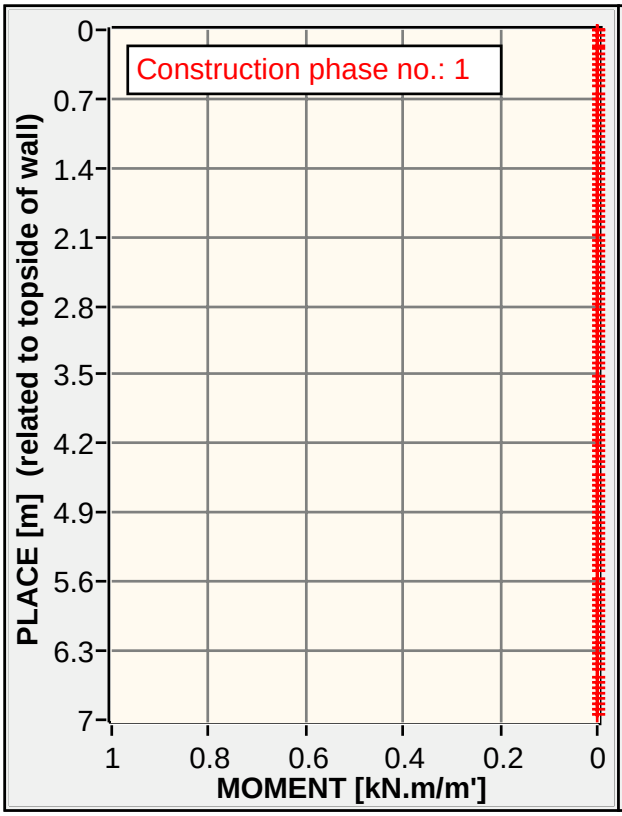
**** Equal distributed load**

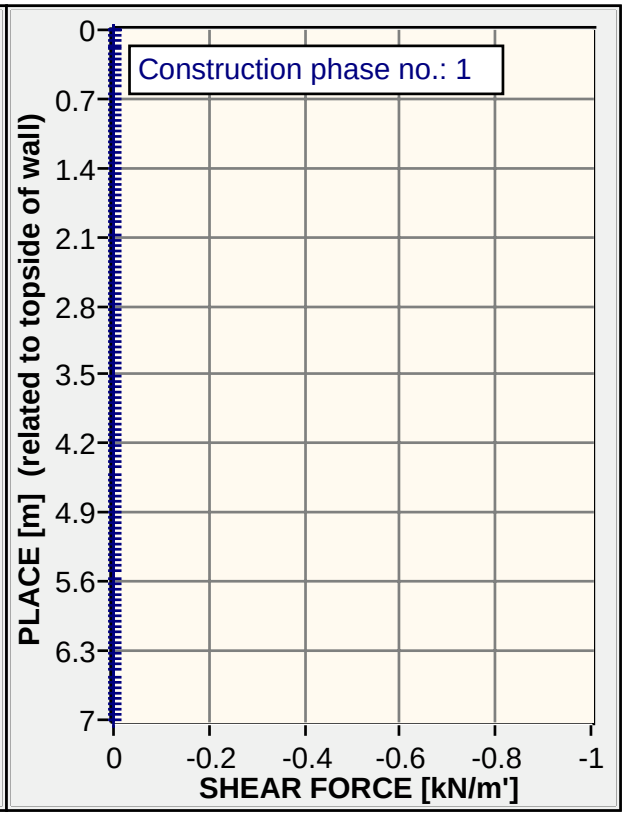
```
Size of the load    [kN/m^2/m']           9.000
Variable load(s)
```

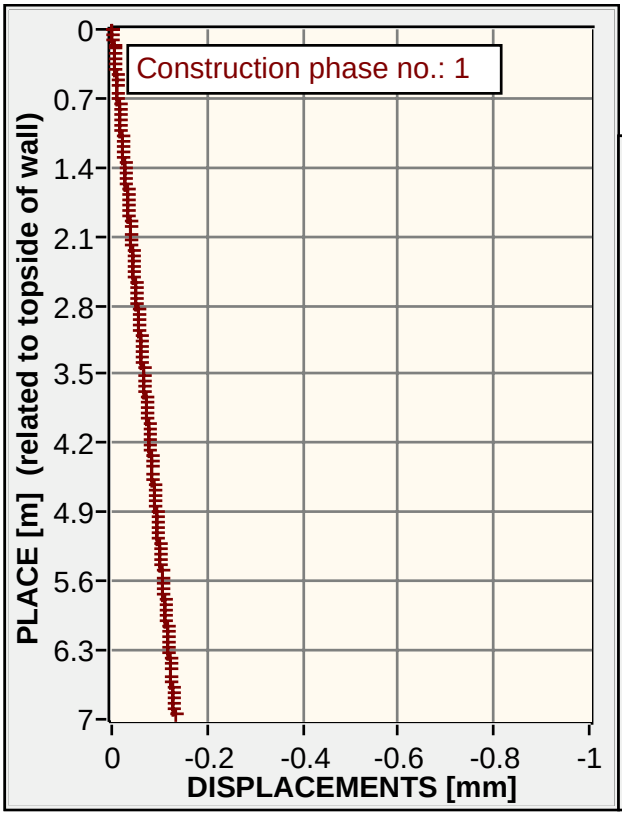
CONSTRUCTION PHASE no: 1

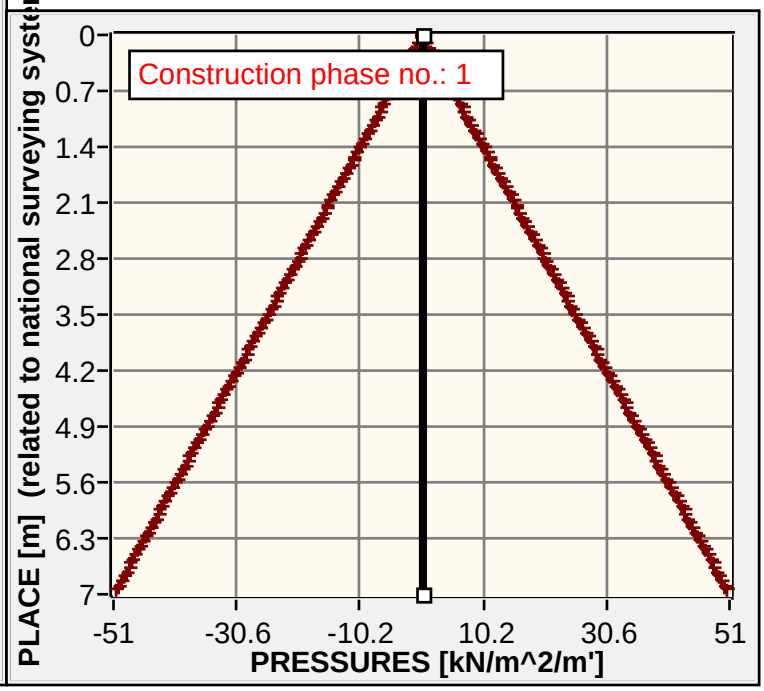
** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded









Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**-0.0**	0.000	0.00	-0.00	0.03	-	0.00	0.03	-	0.00
0.050	-0.0	0.000	0.00	-0.00	0.36	-	0.00	0.36	-	0.00
0.100	-0.0	0.000	0.00	-0.00	0.73	-	0.00	0.73	-	0.00
0.150	-0.0	0.000	0.00	-0.00	1.09	-	0.00	1.09	-	0.00
0.200	-0.0	0.000	0.00	-0.00	1.46	-	0.00	1.46	-	0.00

0.250	-0.0	0.000	0.00	-0.00	1.82	-	0.00	1.82	-	0.00
0.305	-0.0	0.000	0.00	-0.00	2.22	-	0.00	2.22	-	0.00
0.360	-0.0	0.000	0.00	-0.00	2.62	-	0.00	2.62	-	0.00
0.415	-0.0	0.000	0.00	-0.00	3.02	-	0.00	3.02	-	0.00
0.470	-0.0	0.000	0.00	-0.00	3.42	-	0.00	3.42	-	0.00
0.525	-0.0	0.000	0.00	-0.00	3.83	-	0.00	3.83	-	0.00
0.581	-0.0	0.000	0.00	-0.00	4.23	-	0.00	4.23	-	0.00
0.636	-0.0	0.000	0.00	-0.00	4.63	-	0.00	4.63	-	0.00
0.691	-0.0	0.000	0.00	-0.00	5.03	-	0.00	5.03	-	0.00
0.746	-0.0	0.000	0.00	-0.00	5.43	-	0.00	5.43	-	0.00
0.801	-0.0	0.000	0.00	-0.00	5.83	-	0.00	5.83	-	0.00
0.856	-0.0	0.000	0.00	-0.00	6.23	-	0.00	6.23	-	0.00
0.911	-0.0	0.000	0.00	-0.00	6.63	-	0.00	6.63	-	0.00
0.966	-0.0	0.000	0.00	-0.00	7.03	-	0.00	7.03	-	0.00
1.021	-0.0	0.000	0.00	-0.00	7.44	-	0.00	7.44	-	0.00
1.076	-0.0	0.000	0.00	-0.00	7.84	-	0.00	7.84	-	0.00
1.131	-0.0	0.000	0.00	-0.00	8.24	-	0.00	8.24	-	0.00
1.186	-0.0	0.000	0.00	-0.00	8.64	-	0.00	8.64	-	0.00
1.242	-0.0	0.000	0.00	-0.00	9.04	-	0.00	9.04	-	0.00
1.297	-0.0	0.000	0.00	-0.00	9.44	-	0.00	9.44	-	0.00
1.352	-0.0	0.000	0.00	-0.00	9.84	-	0.00	9.84	-	0.00
1.407	-0.0	0.000	0.00	-0.00	10.24	-	0.00	10.24	-	0.00
1.462	-0.0	0.000	0.00	-0.00	10.65	-	0.00	10.65	-	0.00
1.517	-0.0	0.000	0.00	-0.00	11.05	-	0.00	11.05	-	0.00
1.572	-0.0	0.000	0.00	-0.00	11.45	-	0.00	11.45	-	0.00
1.627	-0.0	0.000	0.00	-0.00	11.85	-	0.00	11.85	-	0.00
1.682	-0.0	0.000	0.00	-0.00	12.25	-	0.00	12.25	-	0.00
1.737	-0.0	0.000	0.00	-0.00	12.65	-	0.00	12.65	-	0.00
1.792	-0.0	0.000	0.00	-0.00	13.05	-	0.00	13.05	-	0.00
1.847	-0.0	0.000	0.00	-0.00	13.45	-	0.00	13.45	-	0.00
1.903	-0.0	0.000	0.00	-0.00	13.85	-	0.00	13.85	-	0.00
1.958	-0.0	0.000	0.00	-0.00	14.26	-	0.00	14.26	-	0.00
2.013	-0.0	0.000	0.00	-0.00	14.66	-	0.00	14.66	-	0.00
2.068	-0.0	0.000	0.00	-0.00	15.06	-	0.00	15.06	-	0.00
2.123	-0.0	0.000	0.00	-0.00	15.46	-	0.00	15.46	-	0.00
2.178	-0.0	0.000	0.00	-0.00	15.86	-	0.00	15.86	-	0.00
2.233	-0.0	0.000	0.00	-0.00	16.26	-	0.00	16.26	-	0.00
2.288	-0.0	0.000	0.00	-0.00	16.66	-	0.00	16.66	-	0.00
2.343	-0.0	0.000	0.00	-0.00	17.06	-	0.00	17.06	-	0.00
2.398	-0.0	0.000	0.00	-0.00	17.46	-	0.00	17.46	-	0.00
2.453	-0.0	0.000	0.00	-0.00	17.87	-	0.00	17.87	-	0.00
2.508	-0.0	0.000	0.00	-0.00	18.27	-	0.00	18.27	-	0.00
2.564	-0.0	0.000	0.00	-0.00	18.67	-	0.00	18.67	-	0.00
2.619	-0.0	0.000	0.00	-0.00	19.07	-	0.00	19.07	-	0.00
2.674	-0.1	0.000	0.00	-0.00	19.47	-	0.00	19.47	-	0.00
2.729	-0.1	0.000	0.00	-0.00	19.87	-	0.00	19.87	-	0.00
2.784	-0.1	0.000	0.00	-0.00	20.27	-	0.00	20.27	-	0.00
2.839	-0.1	0.000	0.00	-0.00	20.67	-	0.00	20.67	-	0.00
2.894	-0.1	0.000	0.00	-0.00	21.07	-	0.00	21.07	-	0.00
2.949	-0.1	0.000	0.00	-0.00	21.48	-	0.00	21.48	-	0.00
3.004	-0.1	0.000	0.00	-0.00	21.88	-	0.00	21.88	-	0.00
3.059	-0.1	0.000	0.00	-0.00	22.28	-	0.00	22.28	-	0.00
3.114	-0.1	0.000	0.00	-0.00	22.68	-	0.00	22.68	-	0.00
3.169	-0.1	0.000	0.00	-0.00	23.08	-	0.00	23.08	-	0.00
3.225	-0.1	0.000	0.00	-0.00	23.48	-	0.00	23.48	-	0.00
3.280	-0.1	0.000	0.00	-0.00	23.88	-	0.00	23.88	-	0.00
3.335	-0.1	0.000	0.00	-0.00	24.28	-	0.00	24.28	-	0.00
3.390	-0.1	0.000	0.00	-0.00	24.68	-	0.00	24.68	-	0.00
3.445	-0.1	0.000	0.00	-0.00	25.09	-	0.00	25.09	-	0.00
3.500	-0.1	0.000	0.00	-0.00	25.49	-	0.00	25.49	-	0.00
3.556	-0.1	0.000	0.00	-0.00	25.89	-	0.00	25.89	-	0.00
3.611	-0.1	0.000	0.00	-0.00	26.30	-	0.00	26.30	-	0.00
3.667	-0.1	0.000	0.00	-0.00	26.70	-	0.00	26.70	-	0.00
3.722	-0.1	0.000	0.00	-0.00	27.10	-	0.00	27.10	-	0.00
3.778	-0.1	0.000	0.00	-0.00	27.51	-	0.00	27.51	-	0.00
3.833	-0.1	0.000	0.00	-0.00	27.91	-	0.00	27.91	-	0.00
3.889	-0.1	0.000	0.00	-0.00	28.32	-	0.00	28.32	-	0.00
3.944	-0.1	0.000	0.00	-0.00	28.72	-	0.00	28.72	-	0.00
4.000	-0.1	0.000	0.00	-0.00	29.13	-	0.00	29.13	-	0.00
4.056	-0.1	0.000	0.00	-0.00	29.53	-	0.00	29.53	-	0.00
4.111	-0.1	0.000	0.00	-0.00	29.94	-	0.00	29.94	-	0.00
4.167	-0.1	0.000	0.00	-0.00	30.34	-	0.00	30.34	-	0.00
4.222	-0.1	0.000	0.00	-0.00	30.75	-	0.00	30.75	-	0.00
4.278	-0.1	0.000	0.00	-0.00	31.15	-	0.00	31.15	-	0.00

4.333	-0.1	0.000	0.00	-0.00	31.55	-	0.00	31.55	-	0.00
4.389	-0.1	0.000	0.00	-0.00	31.96	-	0.00	31.96	-	0.00
4.444	-0.1	0.000	0.00	-0.00	32.36	-	0.00	32.36	-	0.00
4.500	-0.1	0.000	0.00	-0.00	32.77	-	0.00	32.77	-	0.00
4.556	-0.1	0.000	0.00	-0.00	33.17	-	0.00	33.17	-	0.00
4.611	-0.1	0.000	0.00	-0.00	33.58	-	0.00	33.58	-	0.00
4.667	-0.1	0.000	0.00	-0.00	33.98	-	0.00	33.98	-	0.00
4.722	-0.1	0.000	0.00	-0.00	34.39	-	0.00	34.39	-	0.00
4.778	-0.1	0.000	0.00	-0.00	34.79	-	0.00	34.79	-	0.00
4.833	-0.1	0.000	0.00	-0.00	35.20	-	0.00	35.20	-	0.00
4.889	-0.1	0.000	0.00	-0.00	35.60	-	0.00	35.60	-	0.00
4.944	-0.1	0.000	0.00	-0.00	36.00	-	0.00	36.00	-	0.00
5.000	-0.1	0.000	0.00	-0.00	36.41	-	0.00	36.41	-	0.00
5.056	-0.1	0.000	0.00	-0.00	36.81	-	0.00	36.81	-	0.00
5.111	-0.1	0.000	0.00	-0.00	37.22	-	0.00	37.22	-	0.00
5.167	-0.1	0.000	0.00	-0.00	37.62	-	0.00	37.62	-	0.00
5.222	-0.1	0.000	0.00	-0.00	38.03	-	0.00	38.03	-	0.00
5.278	-0.1	0.000	0.00	-0.00	38.43	-	0.00	38.43	-	0.00
5.333	-0.1	0.000	0.00	-0.00	38.84	-	0.00	38.84	-	0.00
5.389	-0.1	0.000	0.00	-0.00	39.24	-	0.00	39.24	-	0.00
5.444	-0.1	0.000	0.00	-0.00	39.65	-	0.00	39.65	-	0.00
5.500	-0.1	0.000	0.00	-0.00	40.05	-	0.00	40.05	-	0.00
5.556	-0.1	0.000	0.00	-0.00	40.45	-	0.00	40.45	-	0.00
5.611	-0.1	0.000	0.00	-0.00	40.86	-	0.00	40.86	-	0.00
5.667	-0.1	0.000	0.00	-0.00	41.26	-	0.00	41.26	-	0.00
5.722	-0.1	0.000	0.00	-0.00	41.67	-	0.00	41.67	-	0.00
5.778	-0.1	0.000	0.00	-0.00	42.07	-	0.00	42.07	-	0.00
5.833	-0.1	0.000	0.00	-0.00	42.48	-	0.00	42.48	-	0.00
5.889	-0.1	0.000	0.00	-0.00	42.88	-	0.00	42.88	-	0.00
5.944	-0.1	0.000	0.00	-0.00	43.29	-	0.00	43.29	-	0.00
6.000	-0.1	0.000	0.00	-0.00	43.69	-	0.00	43.69	-	0.00
6.056	-0.1	0.000	0.00	-0.00	44.10	-	0.00	44.10	-	0.00
6.111	-0.1	0.000	0.00	-0.00	44.50	-	0.00	44.50	-	0.00
6.167	-0.1	0.000	0.00	-0.00	44.90	-	0.00	44.90	-	0.00
6.222	-0.1	0.000	0.00	-0.00	45.31	-	0.00	45.31	-	0.00
6.278	-0.1	0.000	0.00	-0.00	45.71	-	0.00	45.71	-	0.00
6.333	-0.1	0.000	0.00	-0.00	46.12	-	0.00	46.12	-	0.00
6.389	-0.1	0.000	0.00	-0.00	46.52	-	0.00	46.52	-	0.00
6.444	-0.1	0.000	0.00	-0.00	46.93	-	0.00	46.93	-	0.00
6.500	-0.1	0.000	0.00	-0.00	47.33	-	0.00	47.33	-	0.00
6.556	-0.1	0.000	0.00	-0.00	47.74	-	0.00	47.74	-	0.00
6.611	-0.1	0.000	0.00	-0.00	48.14	-	0.00	48.14	-	0.00
6.667	-0.1	0.000	0.00	-0.00	48.55	-	0.00	48.55	-	0.00
6.722	-0.1	0.000	0.00	-0.00	48.95	-	0.00	48.95	-	0.00
6.778	-0.1	0.000	0.00	-0.00	49.35	-	0.00	49.35	-	0.00
6.833	-0.1	0.000	0.00	-0.00	49.76	-	0.00	49.76	-	0.00
6.889	-0.1	0.000	0.00	-0.00	50.16	-	0.00	50.16	-	0.00
6.944	-0.1	0.000	0.00	-0.00	50.57	-	0.00	50.57	-	0.00
7.000	-0.1	0.000	0.00	0.00	50.97	-	0.00	50.97	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: -0.0 [mm] at X= 0.00 [m]
Largest negative displacement: -0.1 [mm] at X= 7.00 [m]
Largest bending stress: 0.000 [N/mm^2] at X= 1.63 [m]
Largest positive moment: 0.00 [kN.m/m'] at X= 1.63 [m]
Largest negative moment: 0.00 [kN.m/m'] at X= 7.00 [m]
Largest positive shear force: 0.00 [kN/m'] at X= 7.00 [m]
Largest negative shear force: -0.00 [kN/m'] at X= 3.28 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 79.558 [kN/m']
Max. total Neutral force: 180.721 [kN/m']
Max. total Passive force: 2828.227 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 178.404 [kN/m']

Total horizontal force on sheet pile (water+soil): 178.404 [kN/m']

-- RIGHT:

Max. total Active force: 76.814 [kN/m']
Max. total Neutral force: 176.087 [kN/m']

```
Max. total Passive force:                                  2760.972 [kN/m']
Total force by water stresses:                                0.000 [kN/m']
Total mobilized horizontal soil stresses:                   178.404 [kN/m']
                                                           ---------------
Total horizontal force on sheet pile (water+soil):          178.404 [kN/m']
The passive zone is the RIGHT side mobilized for  6.46 %
```

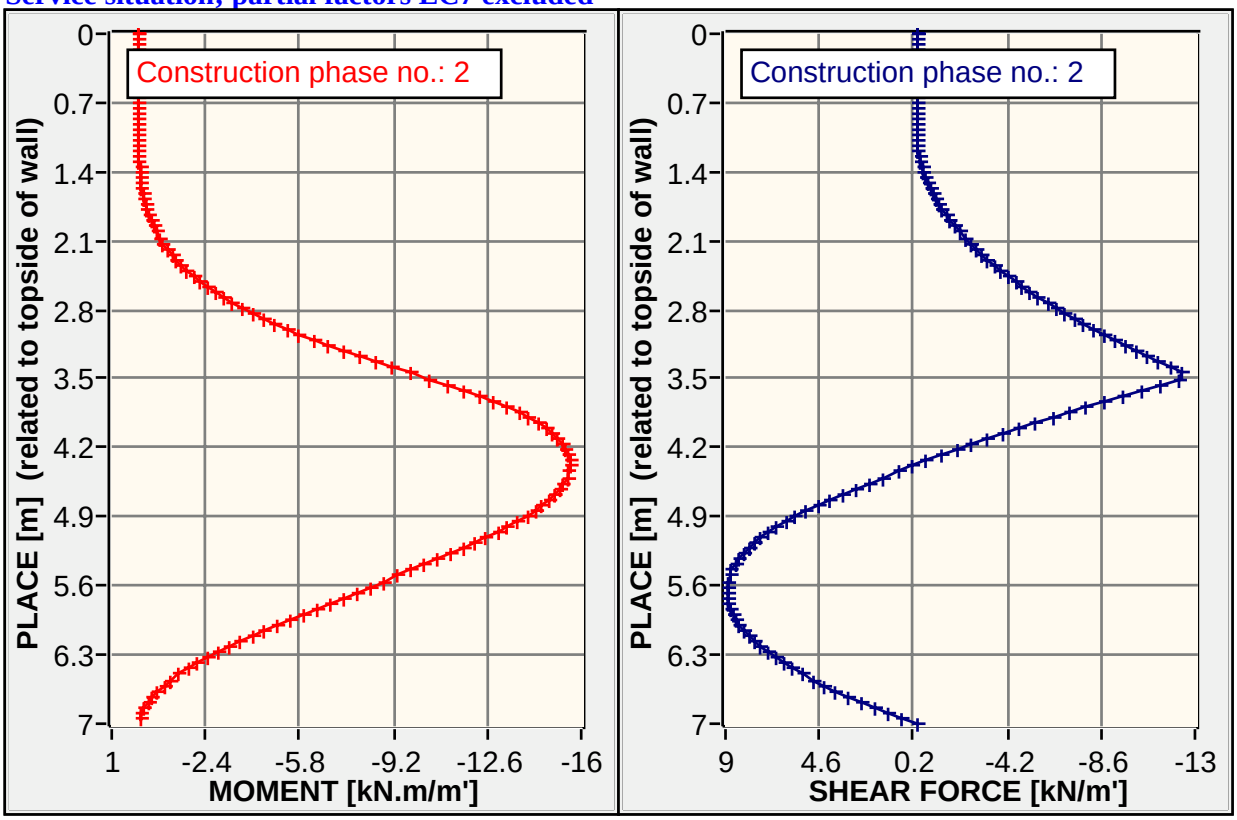
**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

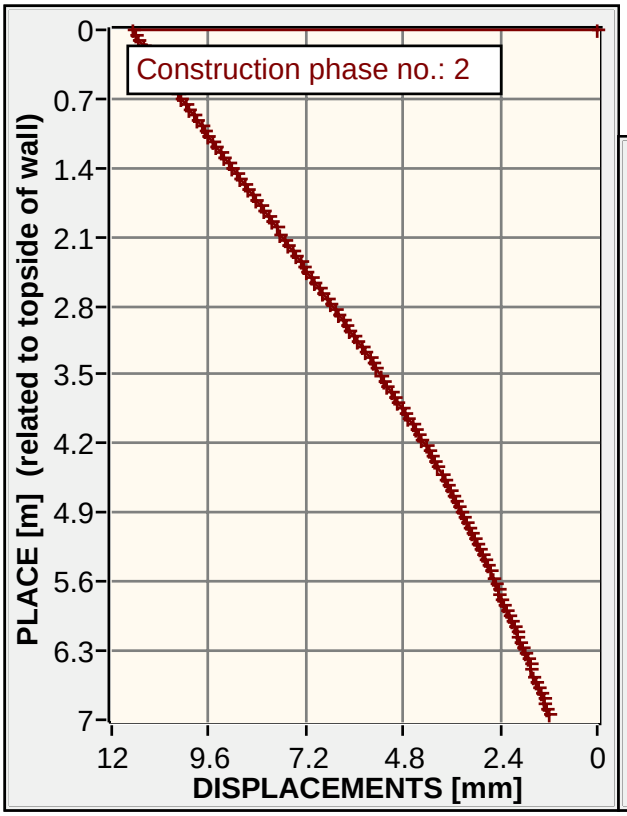
```
Vertical force along sheet pile wall LEFT:                    0.026 [kN/m']
Vertical force along sheet pile wall RIGHT:                  -0.001 [kN/m']
                                                           ---------------
Required point foundation resistance sheet wall               0.025 [kN/m']
```

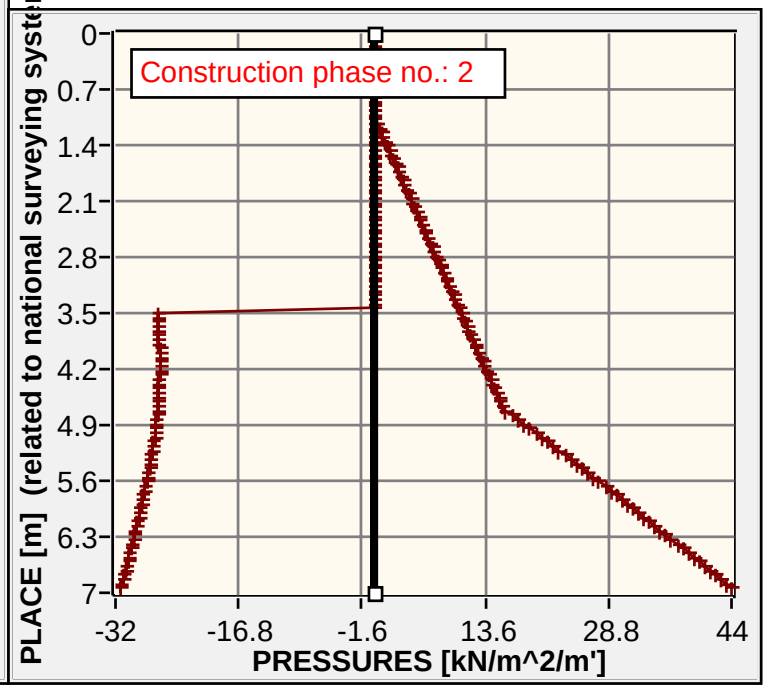
CONSTRUCTION PHASE no: 2

** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**11.5**	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.050	11.4	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.100	11.3	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.150	11.2	0.000	0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.200	11.1	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.250	11.1	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.305	11.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.360	10.9	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.415	10.8	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.470	10.7	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.525	10.6	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.581	10.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.636	10.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.691	10.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.746	10.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.801	10.1	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.856	10.0	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.911	9.9	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.966	9.8	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
1.021	9.7	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
1.076	9.6	0.000	-0.00	-0.00	0.00	-	0.00	0.07	A	0.00
1.131	9.5	0.003	-0.00	-0.01	0.00	-	0.00	0.31	A	0.00
1.186	9.4	0.013	-0.00	-0.04	0.00	-	0.00	0.55	A	0.00
1.242	9.3	0.035	-0.00	-0.07	0.00	-	0.00	0.79	A	0.00
1.297	9.2	0.074	-0.01	-0.12	0.00	-	0.00	1.03	A	0.00
1.352	9.1	0.136	-0.02	-0.19	0.00	-	0.00	1.27	A	0.00
1.407	9.0	0.225	-0.03	-0.26	0.00	-	0.00	1.51	A	0.00
1.462	8.9	0.348	-0.05	-0.35	0.00	-	0.00	1.75	A	0.00
1.517	8.8	0.509	-0.07	-0.46	0.00	-	0.00	1.99	A	0.00
1.572	8.7	0.713	-0.10	-0.57	0.00	-	0.00	2.23	A	0.00
1.627	8.6	0.966	-0.13	-0.70	0.00	-	0.00	2.47	A	0.00
1.682	8.5	1.273	-0.18	-0.85	0.00	-	0.00	2.71	A	0.00
1.737	8.4	1.639	-0.23	-1.00	0.00	-	0.00	2.95	A	0.00
1.792	8.3	2.070	-0.29	-1.17	0.00	-	0.00	3.19	A	0.00
1.847	8.2	2.570	-0.36	-1.35	0.00	-	0.00	3.43	A	0.00
1.903	8.1	3.145	-0.44	-1.55	0.00	-	0.00	3.67	A	0.00
1.958	8.0	3.800	-0.53	-1.76	0.00	-	0.00	3.91	A	0.00

2.013	7.9	4.541	-0.63	-1.98	0.00	-	0.00	4.15	A	0.00
2.068	7.8	5.372	-0.75	-2.22	0.00	-	0.00	4.39	A	0.00
2.123	7.7	6.299	-0.88	-2.46	0.00	-	0.00	4.63	A	0.00
2.178	7.6	7.328	-1.02	-2.73	0.00	-	0.00	4.87	A	0.00
2.233	7.5	8.462	-1.18	-3.00	0.00	-	0.00	5.11	A	0.00
2.288	7.4	9.708	-1.35	-3.29	0.00	-	0.00	5.35	A	0.00
2.343	7.4	11.071	-1.54	-3.59	0.00	-	0.00	5.59	A	0.00
2.398	7.3	12.555	-1.75	-3.90	0.00	-	0.00	5.83	A	0.00
2.453	7.2	14.167	-1.97	-4.23	0.00	-	0.00	6.07	A	0.00
2.508	7.1	15.912	-2.21	-4.57	0.00	-	0.00	6.31	A	0.00
2.564	7.0	17.794	-2.47	-4.93	0.00	-	0.00	6.55	A	0.00
2.619	6.9	19.819	-2.75	-5.29	0.00	-	0.00	6.79	A	0.00
2.674	6.8	21.993	-3.06	-5.67	0.00	-	0.00	7.03	A	0.00
2.729	6.7	24.319	-3.38	-6.07	0.00	-	0.00	7.27	A	0.00
2.784	6.6	26.805	-3.73	-6.47	0.00	-	0.00	7.51	A	0.00
2.839	6.5	29.454	-4.09	-6.90	0.00	-	0.00	7.75	A	0.00
2.894	6.4	32.272	-4.49	-7.33	0.00	-	0.00	7.99	A	0.00
2.949	6.3	35.265	-4.90	-7.78	0.00	-	0.00	8.23	A	0.00
3.004	6.2	38.437	-5.34	-8.23	0.00	-	0.00	8.47	A	0.00
3.059	6.1	41.794	-5.81	-8.71	0.00	-	0.00	8.71	A	0.00
3.114	6.0	45.341	-6.30	-9.19	0.00	-	0.00	8.95	A	0.00
3.169	5.9	49.084	-6.82	-9.69	0.00	-	0.00	9.19	A	0.00
3.225	5.8	53.027	-7.37	-10.21	0.00	-	0.00	9.43	A	0.00
3.280	5.7	57.176	-7.95	-10.73	0.00	-	0.00	9.67	A	0.00
3.335	5.6	61.535	-8.55	-11.27	0.00	-	0.00	9.91	A	0.00
3.390	5.5	66.111	-9.19	-11.82	0.00	-	0.00	10.14	A	0.00
3.445	5.5	70.909	-9.86	-12.39	0.00	-	0.00	10.38	A	0.00
3.500	5.4	75.785	-10.53	-12.23	26.81	-	0.00	10.62	A	0.00
3.556	5.3	80.492	-11.19	-11.34	26.76	-	0.00	10.87	A	0.00
3.611	5.2	84.846	-11.79	-10.46	26.72	-	0.00	11.11	A	0.00
3.667	5.1	88.853	-12.35	-9.60	26.69	-	0.00	11.35	A	0.00
3.722	5.0	92.520	-12.86	-8.76	26.65	-	0.00	11.59	A	0.00
3.778	4.9	95.852	-13.32	-7.93	26.62	-	0.00	11.83	A	0.00
3.833	4.8	98.856	-13.74	-7.11	26.60	-	0.00	12.08	A	0.00
3.889	4.7	101.537	-14.11	-6.31	26.58	-	0.00	12.32	A	0.00
3.944	4.7	103.901	-14.44	-5.53	26.56	-	0.00	12.56	A	0.00
4.000	4.6	105.955	-14.73	-4.76	26.55	-	0.00	12.80	A	0.00
4.056	4.5	107.703	-14.97	-4.00	26.54	-	0.00	13.04	A	0.00
4.111	4.4	109.152	-15.17	-3.26	26.54	-	0.00	13.28	A	0.00
4.167	4.3	110.306	-15.33	-2.53	26.54	-	0.00	13.53	A	0.00
4.222	4.2	111.171	-15.45	-1.81	26.55	-	0.00	13.77	A	0.00
4.278	4.2	111.753	-15.53	-1.11	26.56	-	0.00	14.01	A	0.00
4.333	4.1	112.055	-15.58	-0.42	26.58	-	0.00	14.25	A	0.00
4.389	4.0	112.084	-15.58	0.26	26.60	-	0.00	14.49	A	0.00
4.444	3.9	111.844	-15.55	0.93	26.62	-	0.00	14.74	A	0.00
4.500	3.9	111.341	-15.48	1.58	26.66	-	0.00	14.98	A	0.00
4.556	3.8	110.578	-15.37	2.22	26.69	-	0.00	15.22	A	0.00
4.611	3.7	109.560	-15.23	2.86	26.73	-	0.00	15.46	A	0.00
4.667	3.6	108.291	-15.05	3.48	26.78	-	0.00	15.70	A	0.00
4.722	3.6	106.777	-14.84	4.08	26.83	-	0.00	16.13	-	0.00
4.778	3.5	105.026	-14.60	4.66	26.88	-	0.00	16.88	-	0.00
4.833	3.4	103.053	-14.32	5.19	26.94	-	0.00	17.63	-	0.00
4.889	3.4	100.873	-14.02	5.69	27.01	-	0.00	18.37	-	0.00
4.944	3.3	98.501	-13.69	6.15	27.08	-	0.00	19.11	-	0.00
5.000	3.2	95.952	-13.34	6.58	27.15	-	0.00	19.85	-	0.00
5.056	3.2	93.241	-12.96	6.97	27.23	-	0.00	20.58	-	0.00
5.111	3.1	90.383	-12.56	7.32	27.31	-	0.00	21.31	-	0.00
5.167	3.0	87.391	-12.15	7.63	27.39	-	0.00	22.03	-	0.00
5.222	3.0	84.280	-11.71	7.91	27.48	-	0.00	22.75	-	0.00
5.278	2.9	81.064	-11.27	8.16	27.58	-	0.00	23.47	-	0.00
5.333	2.8	77.757	-10.81	8.37	27.67	-	0.00	24.18	-	0.00
5.389	2.8	74.373	-10.34	8.55	27.77	-	0.00	24.89	-	0.00
5.444	2.7	70.924	-9.86	8.69	27.87	-	0.00	25.60	-	0.00
5.500	2.6	67.425	-9.37	8.80	27.98	-	0.00	26.30	-	0.00
5.556	2.6	63.889	-8.88	8.87	28.09	-	0.00	27.00	-	0.00
5.611	2.5	60.329	-8.39	8.92	28.20	-	0.00	27.70	-	0.00
5.667	2.5	56.757	-7.89	8.93	28.31	-	0.00	28.39	-	0.00
5.722	2.4	53.187	-7.39	8.91	28.43	-	0.00	29.09	-	0.00
5.778	2.3	49.632	-6.90	8.86	28.55	-	0.00	29.78	-	0.00
5.833	2.3	46.104	-6.41	8.77	28.67	-	0.00	30.47	-	0.00
5.889	2.2	42.616	-5.92	8.66	28.80	-	0.00	31.15	-	0.00
5.944	2.2	39.180	-5.45	8.51	28.92	-	0.00	31.83	-	0.00
6.000	2.1	35.808	-4.98	8.34	29.05	-	0.00	32.52	-	0.00
6.056	2.1	32.514	-4.52	8.13	29.18	-	0.00	33.20	-	0.00

6.111	2.0	29.309	-4.07	7.89	29.31	-	0.00	33.88	-	0.00
6.167	2.0	26.206	-3.64	7.62	29.44	-	0.00	34.55	-	0.00
6.222	1.9	23.216	-3.23	7.32	29.57	-	0.00	35.23	-	0.00
6.278	1.8	20.351	-2.83	6.99	29.70	-	0.00	35.91	-	0.00
6.333	1.8	17.625	-2.45	6.63	29.84	-	0.00	36.58	-	0.00
6.389	1.7	15.048	-2.09	6.24	29.97	-	0.00	37.26	-	0.00
6.444	1.7	12.634	-1.76	5.82	30.11	-	0.00	37.93	-	0.00
6.500	1.6	10.392	-1.44	5.37	30.24	-	0.00	38.60	-	0.00
6.556	1.6	8.337	-1.16	4.89	30.38	-	0.00	39.28	-	0.00
6.611	1.5	6.479	-0.90	4.38	30.52	-	0.00	39.95	-	0.00
6.667	1.5	4.830	-0.67	3.84	30.65	-	0.00	40.62	-	0.00
6.722	1.4	3.403	-0.47	3.28	30.79	-	0.00	41.29	-	0.00
6.778	1.4	2.209	-0.31	2.68	30.93	-	0.00	41.96	-	0.00
6.833	1.3	1.259	-0.18	2.05	31.07	-	0.00	42.63	-	0.00
6.889	1.2	0.567	-0.08	1.39	31.20	-	0.00	43.31	-	0.00
6.944	1.2	0.143	-0.02	0.71	31.34	-	0.00	43.98	-	0.00
7.000	1.1	0.000	0.00	0.00	31.48	-	0.00	44.65	-	0.00

Distance relative to top sheet pile wall !

```
Largest positive displacement:      11.5 [mm]     at X=  0.00 [m]
Largest negative displacement:       1.1 [mm]     at X=  7.00 [m]
Largest bending stress:          112.084 [N/mm^2] at X=  4.39 [m]
Largest positive moment:            0.00 [kN.m/m']   at X=  0.05 [m]
Largest negative moment:          -15.58 [kN.m/m']   at X=  4.39 [m]
Largest positive shear force:       8.93 [kN/m']     at X=  5.67 [m]
Largest negative shear force:     -12.39 [kN/m']     at X=  3.44 [m]
```

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

```
Max. total Active force:                                  13.606 [kN/m']
Max. total Neutral force:                                 45.880 [kN/m']
Max. total Passive force:                                759.248 [kN/m']
Total force by water stresses:                             0.000 [kN/m']
Total mobilized horizontal soil stresses:                 99.056 [kN/m']
                                                         ----------------
Total horizontal force on sheet pile (water+soil):        99.056 [kN/m']
The passive zone is at the LEFT side mobilized for 13.05 %
```

-- RIGHT:

```
Max. total Active force:                                  76.814 [kN/m']
Max. total Neutral force:                                176.087 [kN/m']
Max. total Passive force:                               2760.972 [kN/m']
Total force by water stresses:                             0.000 [kN/m']
Total mobilized horizontal soil stresses:                 99.067 [kN/m']
                                                         ----------------
Total horizontal force on sheet pile (water+soil):        99.067 [kN/m']
```

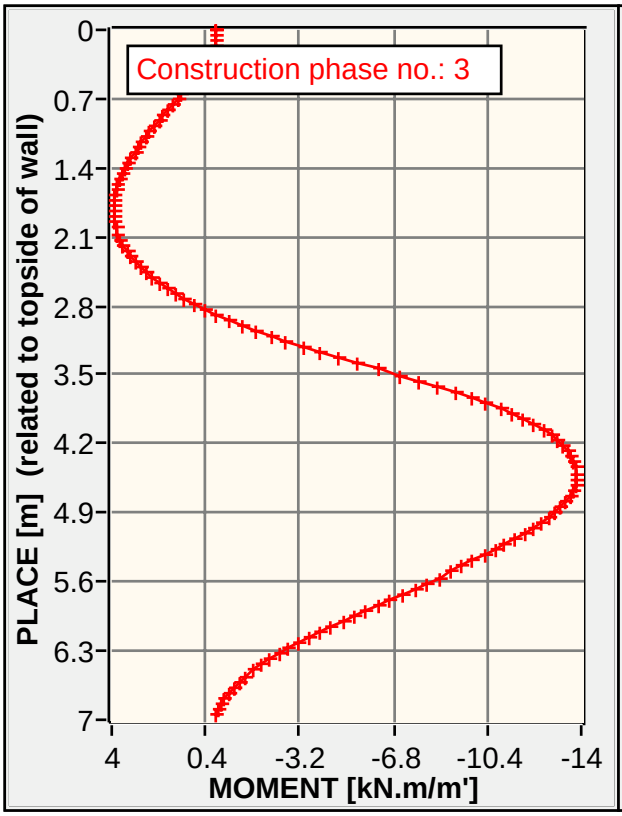
**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

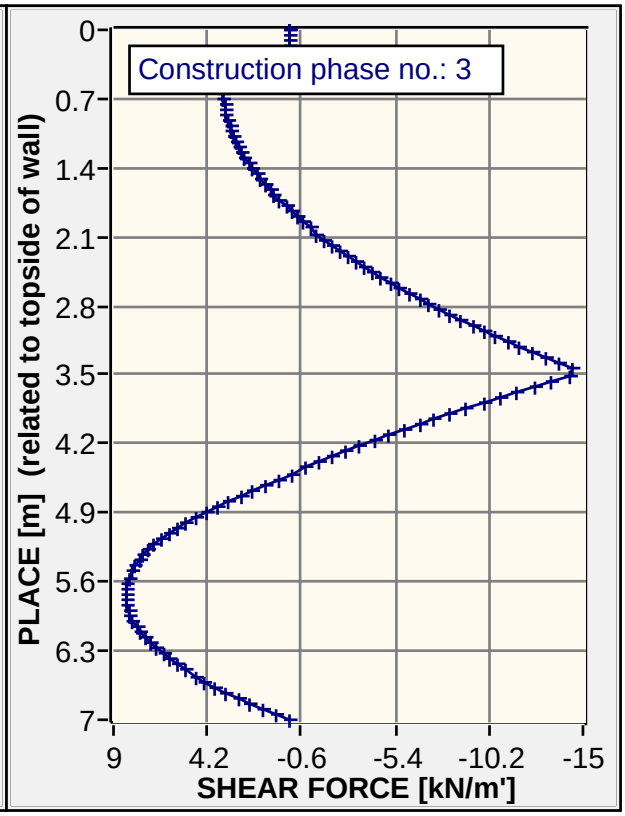
```
Vertical force along sheet pile wall LEFT:                -0.092 [kN/m']
Vertical force along sheet pile wall RIGHT:                5.301 [kN/m']
                                                          --------------
Required point foundation resistance sheet wall            5.209 [kN/m']
```

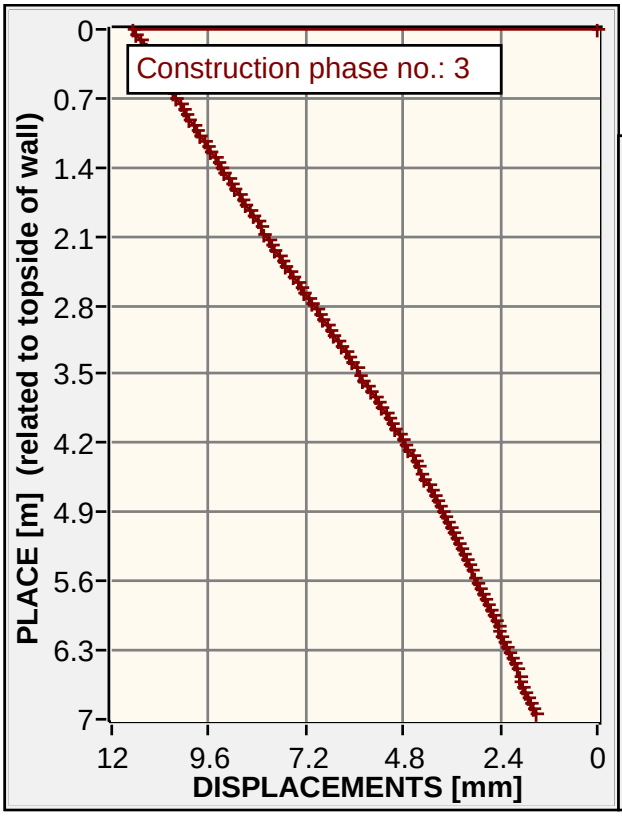
CONSTRUCTION PHASE no: 3

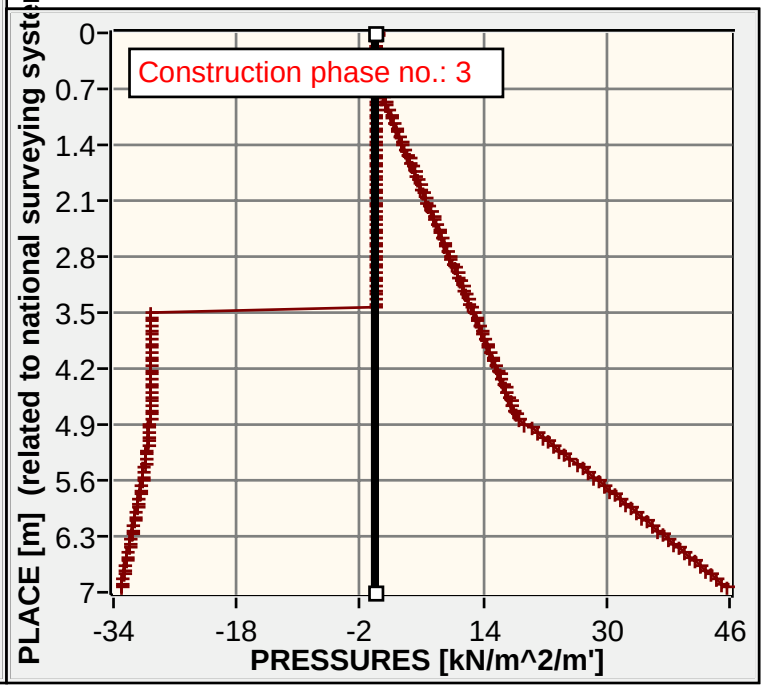
** O U T P U T RESULTS OF THE CALCULATIONS **

Service situation; partial factors EC7 excluded









Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**11.5**	0.000	-0.00	-0.00	0.00	-	0.00	0.22	-	0.00
0.050	11.4	0.002	-0.00	-0.01	0.00	-	0.00	0.17	-	0.00
0.100	11.3	0.006	-0.00	-0.02	0.00	-	0.00	0.10	-	0.00
0.150	11.2	0.013	-0.00	-0.02	0.00	-	0.00	0.04	-	0.00
0.200	11.2	0.021	-0.00	-0.02	0.00	-	0.00	0.00	A	0.00

0.250	11.1	0.031	-0.00	3.37	0.00	-	0.00	0.00	A	0.00
0.305	11.0	1.304	0.18	3.37	0.00	-	0.00	0.00	A	0.00
0.360	10.9	2.638	0.37	3.37	0.00	-	0.00	0.00	A	0.00
0.415	10.8	3.972	0.55	3.37	0.00	-	0.00	0.00	A	0.00
0.470	10.7	5.306	0.74	3.37	0.00	-	0.00	0.00	A	0.00
0.525	10.7	6.641	0.92	3.37	0.00	-	0.00	0.00	A	0.00
0.581	10.6	7.975	1.11	3.37	0.00	-	0.00	0.00	A	0.00
0.636	10.5	9.308	1.29	3.37	0.00	-	0.00	0.22	A	0.00
0.691	10.4	10.636	1.48	3.35	0.00	-	0.00	0.46	A	0.00
0.746	10.3	11.954	1.66	3.32	0.00	-	0.00	0.70	A	0.00
0.801	10.2	13.257	1.84	3.27	0.00	-	0.00	0.94	A	0.00
0.856	10.1	14.540	2.02	3.21	0.00	-	0.00	1.18	A	0.00
0.911	10.1	15.797	2.20	3.14	0.00	-	0.00	1.42	A	0.00
0.966	10.0	17.023	2.37	3.06	0.00	-	0.00	1.66	A	0.00
1.021	9.9	18.212	2.53	2.96	0.00	-	0.00	1.90	A	0.00
1.076	9.8	19.361	2.69	2.85	0.00	-	0.00	2.14	A	0.00
1.131	9.7	20.462	2.84	2.72	0.00	-	0.00	2.38	A	0.00
1.186	9.6	21.512	2.99	2.59	0.00	-	0.00	2.62	A	0.00
1.242	9.5	22.505	3.13	2.43	0.00	-	0.00	2.86	A	0.00
1.297	9.5	23.436	3.26	2.27	0.00	-	0.00	3.10	A	0.00
1.352	9.4	24.298	3.38	2.09	0.00	-	0.00	3.33	A	0.00
1.407	9.3	25.089	3.49	1.90	0.00	-	0.00	3.57	A	0.00
1.462	9.2	25.801	3.59	1.70	0.00	-	0.00	3.81	A	0.00
1.517	9.1	26.429	3.67	1.48	0.00	-	0.00	4.05	A	0.00
1.572	9.0	26.970	3.75	1.25	0.00	-	0.00	4.29	A	0.00
1.627	8.9	27.416	3.81	1.01	0.00	-	0.00	4.53	A	0.00
1.682	8.8	27.764	3.86	0.75	0.00	-	0.00	4.77	A	0.00
1.737	8.8	28.007	3.89	0.48	0.00	-	0.00	5.01	A	0.00
1.792	8.7	28.141	3.91	0.20	0.00	-	0.00	5.25	A	0.00
1.847	8.6	28.160	3.91	-0.09	0.00	-	0.00	5.49	A	0.00
1.903	8.5	28.060	3.90	-0.40	0.00	-	0.00	5.73	A	0.00
1.958	8.4	27.834	3.87	-0.73	0.00	-	0.00	5.97	A	0.00
2.013	8.3	27.478	3.82	-1.06	0.00	-	0.00	6.21	A	0.00
2.068	8.2	26.986	3.75	-1.41	0.00	-	0.00	6.45	A	0.00
2.123	8.1	26.354	3.66	-1.77	0.00	-	0.00	6.69	A	0.00
2.178	8.0	25.575	3.55	-2.15	0.00	-	0.00	6.93	A	0.00
2.233	8.0	24.645	3.43	-2.54	0.00	-	0.00	7.17	A	0.00
2.288	7.9	23.558	3.27	-2.94	0.00	-	0.00	7.41	A	0.00
2.343	7.8	22.310	3.10	-3.35	0.00	-	0.00	7.65	A	0.00
2.398	7.7	20.895	2.90	-3.78	0.00	-	0.00	7.89	A	0.00
2.453	7.6	19.307	2.68	-4.22	0.00	-	0.00	8.13	A	0.00
2.508	7.5	17.542	2.44	-4.68	0.00	-	0.00	8.37	A	0.00
2.564	7.4	15.594	2.17	-5.14	0.00	-	0.00	8.61	A	0.00
2.619	7.3	13.458	1.87	-5.62	0.00	-	0.00	8.85	A	0.00
2.674	7.2	11.129	1.55	-6.12	0.00	-	0.00	9.09	A	0.00
2.729	7.1	8.602	1.20	-6.63	0.00	-	0.00	9.33	A	0.00
2.784	7.0	5.871	0.82	-7.15	0.00	-	0.00	9.57	A	0.00
2.839	7.0	2.931	0.41	-7.68	0.00	-	0.00	9.81	A	0.00
2.894	6.9	0.223	-0.03	-8.23	0.00	-	0.00	10.05	A	0.00
2.949	6.8	3.596	-0.50	-8.79	0.00	-	0.00	10.29	A	0.00
3.004	6.7	7.194	-1.00	-9.36	0.00	-	0.00	10.53	A	0.00
3.059	6.6	11.022	-1.53	-9.95	0.00	-	0.00	10.77	A	0.00
3.114	6.5	15.085	-2.10	-10.55	0.00	-	0.00	11.01	A	0.00
3.169	6.4	19.388	-2.69	-11.16	0.00	-	0.00	11.25	A	0.00
3.225	6.3	23.937	-3.33	-11.79	0.00	-	0.00	11.49	A	0.00
3.280	6.2	28.737	-3.99	-12.43	0.00	-	0.00	11.73	A	0.00
3.335	6.1	33.792	-4.70	-13.08	0.00	-	0.00	11.97	A	0.00
3.390	6.0	39.109	-5.44	-13.74	0.00	-	0.00	12.21	A	0.00
3.445	5.9	44.692	-6.21	-14.42	0.00	-	0.00	12.45	A	0.00
3.500	5.9	50.386	-7.00	-14.31	29.30	-	0.00	12.69	A	0.00
3.556	5.8	55.921	-7.77	-13.39	29.26	-	0.00	12.93	A	0.00
3.611	5.7	61.094	-8.49	-12.49	29.22	-	0.00	13.17	A	0.00
3.667	5.6	65.910	-9.16	-11.61	29.18	-	0.00	13.41	A	0.00
3.722	5.5	70.377	-9.78	-10.74	29.15	-	0.00	13.65	A	0.00
3.778	5.4	74.499	-10.36	-9.89	29.12	-	0.00	13.90	A	0.00
3.833	5.3	78.283	-10.88	-9.05	29.09	-	0.00	14.14	A	0.00
3.889	5.2	81.735	-11.36	-8.23	29.07	-	0.00	14.38	A	0.00
3.944	5.2	84.860	-11.80	-7.42	29.05	-	0.00	14.62	A	0.00
4.000	5.1	87.665	-12.19	-6.62	29.03	-	0.00	14.86	A	0.00
4.056	5.0	90.156	-12.53	-5.84	29.02	-	0.00	15.10	A	0.00
4.111	4.9	92.338	-12.83	-5.08	29.01	-	0.00	15.35	A	0.00
4.167	4.8	94.216	-13.10	-4.32	29.01	-	0.00	15.59	A	0.00
4.222	4.7	95.795	-13.32	-3.59	29.01	-	0.00	15.83	A	0.00
4.278	4.7	97.083	-13.49	-2.86	29.01	-	0.00	16.07	A	0.00

4.333	4.6	98.083	-13.63	-2.15	29.02	-	0.00	16.31	A	0.00
4.389	4.5	98.800	-13.73	-1.45	29.03	-	0.00	16.56	A	0.00
4.444	4.4	99.241	-13.79	-0.76	29.05	-	0.00	16.80	A	0.00
4.500	4.3	99.409	-13.82	-0.09	29.07	-	0.00	17.04	A	0.00
4.556	4.3	99.311	-13.80	0.58	29.10	-	0.00	17.28	A	0.00
4.611	4.2	98.950	-13.75	1.23	29.13	-	0.00	17.52	A	0.00
4.667	4.1	98.331	-13.67	1.87	29.16	-	0.00	17.76	A	0.00
4.722	4.0	97.459	-13.55	2.49	29.20	-	0.00	18.01	A	0.00
4.778	4.0	96.338	-13.39	3.11	29.24	-	0.00	18.25	A	0.00
4.833	3.9	94.974	-13.20	3.71	29.29	-	0.00	18.69	-	0.00
4.889	3.8	93.374	-12.98	4.28	29.34	-	0.00	19.45	-	0.00
4.944	3.7	91.555	-12.73	4.81	29.39	-	0.00	20.20	-	0.00
5.000	3.7	89.532	-12.44	5.30	29.45	-	0.00	20.95	-	0.00
5.056	3.6	87.320	-12.14	5.75	29.52	-	0.00	21.70	-	0.00
5.111	3.5	84.934	-11.81	6.17	29.58	-	0.00	22.44	-	0.00
5.167	3.5	82.389	-11.45	6.55	29.65	-	0.00	23.18	-	0.00
5.222	3.4	79.701	-11.08	6.89	29.73	-	0.00	23.91	-	0.00
5.278	3.3	76.883	-10.69	7.19	29.81	-	0.00	24.64	-	0.00
5.333	3.3	73.951	-10.28	7.46	29.89	-	0.00	25.37	-	0.00
5.389	3.2	70.918	-9.86	7.70	29.97	-	0.00	26.10	-	0.00
5.444	3.1	67.799	-9.42	7.89	30.06	-	0.00	26.82	-	0.00
5.500	3.1	64.608	-8.98	8.06	30.15	-	0.00	27.54	-	0.00
5.556	3.0	61.359	-8.53	8.18	30.24	-	0.00	28.25	-	0.00
5.611	3.0	58.066	-8.07	8.28	30.34	-	0.00	28.97	-	0.00
5.667	2.9	54.742	-7.61	8.34	30.44	-	0.00	29.68	-	0.00
5.722	2.8	51.401	-7.14	8.36	30.54	-	0.00	30.39	-	0.00
5.778	2.8	48.057	-6.68	8.35	30.64	-	0.00	31.09	-	0.00
5.833	2.7	44.723	-6.22	8.31	30.75	-	0.00	31.80	-	0.00
5.889	2.6	41.412	-5.76	8.24	30.85	-	0.00	32.50	-	0.00
5.944	2.6	38.137	-5.30	8.13	30.96	-	0.00	33.20	-	0.00
6.000	2.5	34.913	-4.85	7.99	31.07	-	0.00	33.90	-	0.00
6.056	2.5	31.750	-4.41	7.82	31.18	-	0.00	34.59	-	0.00
6.111	2.4	28.664	-3.98	7.61	31.30	-	0.00	35.29	-	0.00
6.167	2.3	25.666	-3.57	7.37	31.41	-	0.00	35.98	-	0.00
6.222	2.3	22.770	-3.16	7.10	31.53	-	0.00	36.68	-	0.00
6.278	2.2	19.988	-2.78	6.80	31.64	-	0.00	37.37	-	0.00
6.333	2.2	17.333	-2.41	6.47	31.76	-	0.00	38.06	-	0.00
6.389	2.1	14.818	-2.06	6.10	31.88	-	0.00	38.75	-	0.00
6.444	2.1	12.455	-1.73	5.70	32.00	-	0.00	39.44	-	0.00
6.500	2.0	10.258	-1.43	5.27	32.12	-	0.00	40.13	-	0.00
6.556	1.9	8.238	-1.15	4.81	32.24	-	0.00	40.82	-	0.00
6.611	1.9	6.409	-0.89	4.32	32.36	-	0.00	41.51	-	0.00
6.667	1.8	4.784	-0.66	3.80	32.48	-	0.00	42.20	-	0.00
6.722	1.8	3.373	-0.47	3.24	32.60	-	0.00	42.89	-	0.00
6.778	1.7	2.192	-0.30	2.65	32.72	-	0.00	43.57	-	0.00
6.833	1.7	1.251	-0.17	2.03	32.84	-	0.00	44.26	-	0.00
6.889	1.6	0.564	-0.08	1.38	32.97	-	0.00	44.95	-	0.00
6.944	1.5	0.142	-0.02	0.70	33.09	-	0.00	45.64	-	0.00
7.000	1.5	0.000	0.00	0.00	33.21	-	0.00	46.33	-	0.00

Distance relative to top sheet pile wall !

```
Largest positive displacement:      11.5 [mm]      at X=  0.00 [m]
Largest negative displacement:       1.5 [mm]      at X=  7.00 [m]
Largest bending stress:            99.409 [N/mm^2] at X=  4.50 [m]
Largest positive moment:            3.91 [kN.m/m']   at X=  1.85 [m]
Largest negative moment:          -13.82 [kN.m/m']   at X=  4.50 [m]
Largest positive shear force:       8.36 [kN/m']     at X=  5.72 [m]
Largest negative shear force:     -14.42 [kN/m']     at X=  3.44 [m]
```

Anchors at the RIGHT side:

```
Anchor- or strut-force (INCLINED) no.  1 :     8.028 [kN/m'] at X=  0.250 [m]
```

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

```
Max. total Active force:                                  13.606 [kN/m']
Max. total Neutral force:                                 45.880 [kN/m']
Max. total Passive force:                                759.248 [kN/m']
Total force by water stresses:                             0.000 [kN/m']
Total mobilized horizontal soil stresses:                106.823 [kN/m']
                                                        ----------------
Total horizontal force on sheet pile (water+soil):       106.823 [kN/m']
The passive zone is at the LEFT side mobilized for 14.07 %
```

-- RIGHT:

Max. total Active force:	89.551 [kN/m']
Max. total Neutral force:	199.905 [kN/m']
Max. total Passive force:	3106.655 [kN/m']
Total force by water stresses:	0.000 [kN/m']
Total mobilized horizontal soil stresses:	110.225 [kN/m']
Total horizontal force on sheet pile (water+soil):	110.225 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

Vertical force along sheet pile wall LEFT:	-0.103 [kN/m']
Vertical force along sheet pile wall RIGHT:	14.369 [kN/m']
Required point foundation resistance sheet wall	14.265 [kN/m']

***** Maximum values over ALL construction stages *****

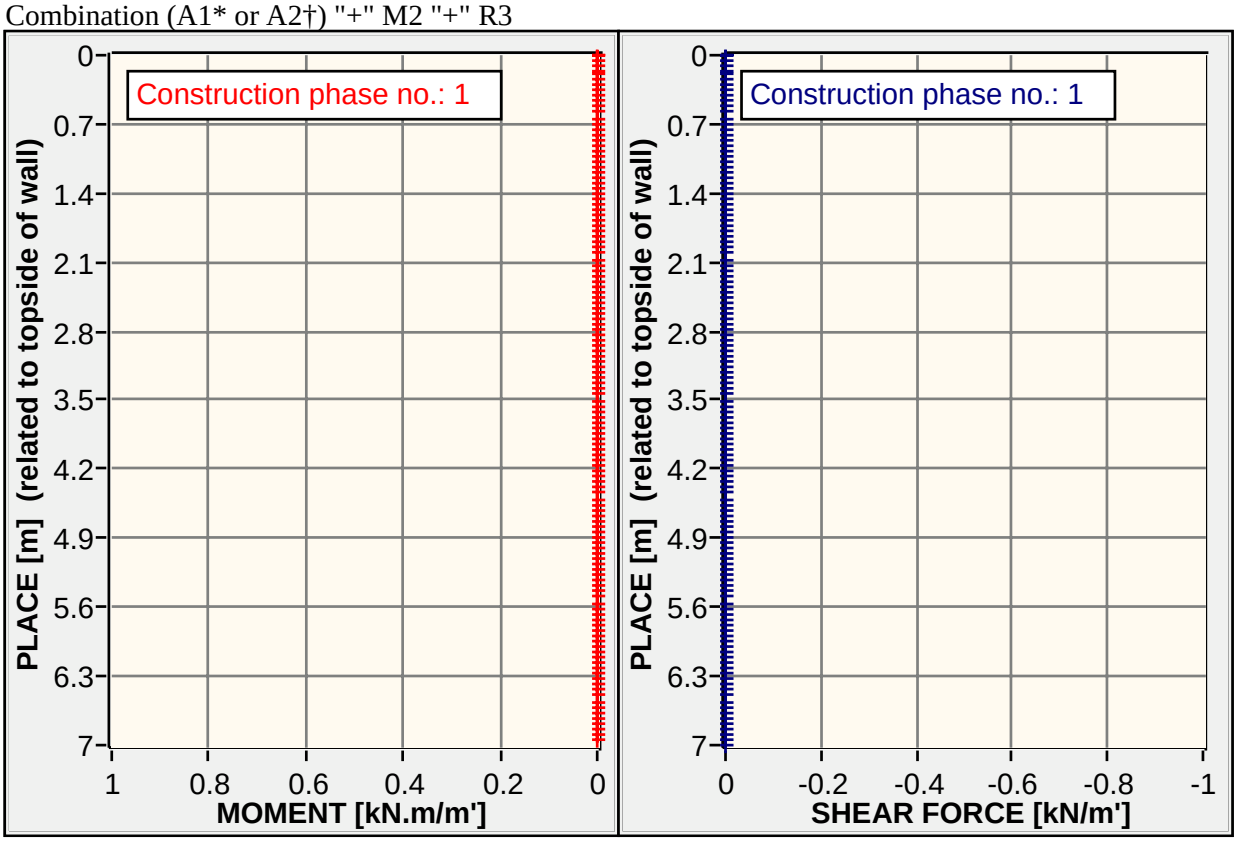
Maximum displacement (absolute):	11.5 [mm]
Maximum moment (absolute):	15.58 [kN.m/m']

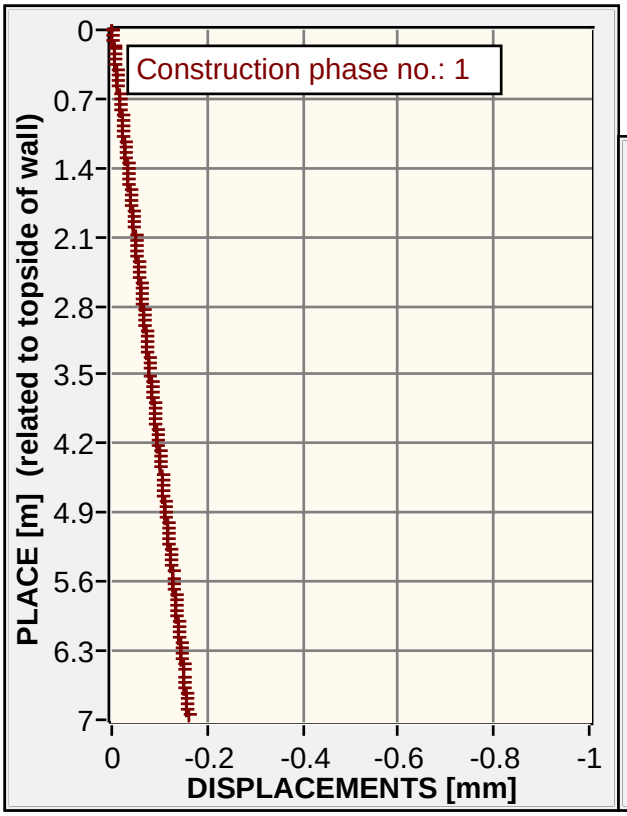
CONSTRUCTION PHASE no: 1

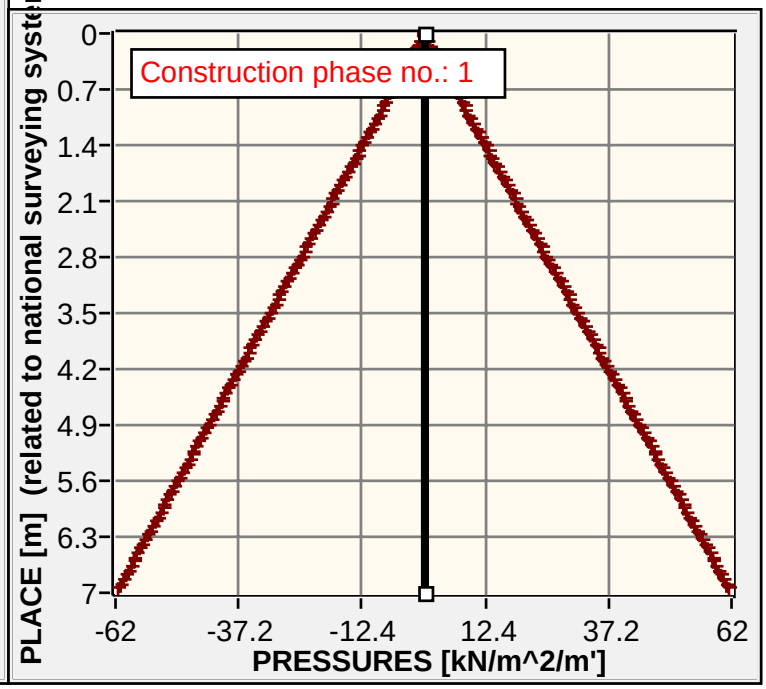
**** O U T P U T RESULTS OF THE CALCULATIONS ****

Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**-0.0**	0.000	0.00	-0.00	0.04	-	0.00	0.04	-	0.00
0.050	-0.0	0.000	0.00	-0.00	0.44	-	0.00	0.44	-	0.00
0.100	-0.0	0.000	0.00	-0.00	0.88	-	0.00	0.88	-	0.00
0.150	-0.0	0.000	0.00	-0.00	1.33	-	0.00	1.33	-	0.00
0.200	-0.0	0.000	0.00	-0.00	1.77	-	0.00	1.77	-	0.00
0.250	-0.0	0.000	0.00	-0.00	2.21	-	0.00	2.21	-	0.00
0.305	-0.0	0.000	0.00	-0.00	2.70	-	0.00	2.70	-	0.00
0.360	-0.0	0.000	0.00	-0.00	3.19	-	0.00	3.19	-	0.00
0.415	-0.0	0.000	0.00	-0.00	3.67	-	0.00	3.67	-	0.00
0.470	-0.0	0.000	0.00	-0.00	4.16	-	0.00	4.16	-	0.00
0.525	-0.0	0.000	0.00	-0.00	4.65	-	0.00	4.65	-	0.00
0.581	-0.0	0.000	0.00	-0.00	5.14	-	0.00	5.14	-	0.00
0.636	-0.0	0.000	0.00	-0.00	5.62	-	0.00	5.62	-	0.00
0.691	-0.0	0.000	0.00	-0.00	6.11	-	0.00	6.11	-	0.00
0.746	-0.0	0.000	0.00	-0.00	6.60	-	0.00	6.60	-	0.00
0.801	-0.0	0.000	0.00	-0.00	7.08	-	0.00	7.08	-	0.00
0.856	-0.0	0.000	0.00	-0.00	7.57	-	0.00	7.57	-	0.00
0.911	-0.0	0.000	0.00	-0.00	8.06	-	0.00	8.06	-	0.00
0.966	-0.0	0.000	0.00	-0.00	8.55	-	0.00	8.55	-	0.00
1.021	-0.0	0.000	0.00	-0.00	9.03	-	0.00	9.03	-	0.00
1.076	-0.0	0.000	0.00	-0.00	9.52	-	0.00	9.52	-	0.00
1.131	-0.0	0.000	0.00	-0.00	10.01	-	0.00	10.01	-	0.00
1.186	-0.0	0.000	0.00	-0.00	10.50	-	0.00	10.50	-	0.00
1.242	-0.0	0.000	0.00	-0.00	10.98	-	0.00	10.98	-	0.00
1.297	-0.0	0.000	0.00	-0.00	11.47	-	0.00	11.47	-	0.00
1.352	-0.0	0.000	0.00	-0.00	11.96	-	0.00	11.96	-	0.00
1.407	-0.0	0.000	0.00	-0.00	12.44	-	0.00	12.44	-	0.00
1.462	-0.0	0.000	0.00	-0.00	12.93	-	0.00	12.93	-	0.00
1.517	-0.0	0.000	0.00	-0.00	13.42	-	0.00	13.42	-	0.00
1.572	-0.0	0.000	0.00	-0.00	13.91	-	0.00	13.91	-	0.00
1.627	-0.0	0.000	0.00	-0.00	14.39	-	0.00	14.39	-	0.00
1.682	-0.0	0.000	0.00	-0.00	14.88	-	0.00	14.88	-	0.00
1.737	-0.0	0.000	0.00	-0.00	15.37	-	0.00	15.37	-	0.00
1.792	-0.0	0.000	0.00	-0.00	15.86	-	0.00	15.86	-	0.00
1.847	-0.0	0.000	0.00	-0.00	16.34	-	0.00	16.34	-	0.00
1.903	-0.0	0.000	0.00	-0.00	16.83	-	0.00	16.83	-	0.00
1.958	-0.0	0.000	0.00	-0.00	17.32	-	0.00	17.32	-	0.00

2.013	-0.0	0.000	0.00	-0.00	17.80	-	0.00	17.80	-	0.00
2.068	-0.0	0.000	0.00	-0.00	18.29	-	0.00	18.29	-	0.00
2.123	-0.0	0.000	0.00	-0.00	18.78	-	0.00	18.78	-	0.00
2.178	-0.1	0.000	0.00	-0.00	19.27	-	0.00	19.27	-	0.00
2.233	-0.1	0.000	0.00	-0.00	19.75	-	0.00	19.75	-	0.00
2.288	-0.1	0.000	0.00	-0.00	20.24	-	0.00	20.24	-	0.00
2.343	-0.1	0.000	0.00	-0.00	20.73	-	0.00	20.73	-	0.00
2.398	-0.1	0.000	0.00	-0.00	21.22	-	0.00	21.22	-	0.00
2.453	-0.1	0.000	0.00	-0.00	21.70	-	0.00	21.70	-	0.00
2.508	-0.1	0.000	0.00	-0.00	22.19	-	0.00	22.19	-	0.00
2.564	-0.1	0.000	0.00	-0.00	22.68	-	0.00	22.68	-	0.00
2.619	-0.1	0.000	0.00	-0.00	23.16	-	0.00	23.16	-	0.00
2.674	-0.1	0.000	0.00	-0.00	23.65	-	0.00	23.65	-	0.00
2.729	-0.1	0.000	0.00	-0.00	24.14	-	0.00	24.14	-	0.00
2.784	-0.1	0.000	0.00	-0.00	24.63	-	0.00	24.63	-	0.00
2.839	-0.1	0.000	0.00	-0.00	25.11	-	0.00	25.11	-	0.00
2.894	-0.1	0.000	0.00	-0.00	25.60	-	0.00	25.60	-	0.00
2.949	-0.1	0.000	0.00	-0.00	26.09	-	0.00	26.09	-	0.00
3.004	-0.1	0.000	0.00	-0.00	26.58	-	0.00	26.58	-	0.00
3.059	-0.1	0.000	0.00	-0.00	27.06	-	0.00	27.06	-	0.00
3.114	-0.1	0.000	0.00	-0.00	27.55	-	0.00	27.55	-	0.00
3.169	-0.1	0.000	0.00	-0.00	28.04	-	0.00	28.04	-	0.00
3.225	-0.1	0.000	0.00	-0.00	28.52	-	0.00	28.52	-	0.00
3.280	-0.1	0.000	0.00	-0.00	29.01	-	0.00	29.01	-	0.00
3.335	-0.1	0.000	0.00	-0.00	29.50	-	0.00	29.50	-	0.00
3.390	-0.1	0.000	0.00	-0.00	29.99	-	0.00	29.99	-	0.00
3.445	-0.1	0.000	0.00	-0.00	30.47	-	0.00	30.47	-	0.00
3.500	-0.1	0.000	0.00	-0.00	30.96	-	0.00	30.96	-	0.00
3.556	-0.1	0.000	0.00	-0.00	31.45	-	0.00	31.45	-	0.00
3.611	-0.1	0.000	0.00	-0.00	31.94	-	0.00	31.94	-	0.00
3.667	-0.1	0.000	0.00	-0.00	32.44	-	0.00	32.44	-	0.00
3.722	-0.1	0.000	0.00	-0.00	32.93	-	0.00	32.93	-	0.00
3.778	-0.1	0.000	0.00	-0.00	33.42	-	0.00	33.42	-	0.00
3.833	-0.1	0.000	0.00	-0.00	33.91	-	0.00	33.91	-	0.00
3.889	-0.1	0.000	0.00	-0.00	34.40	-	0.00	34.40	-	0.00
3.944	-0.1	0.000	0.00	-0.00	34.89	-	0.00	34.89	-	0.00
4.000	-0.1	0.000	0.00	-0.00	35.38	-	0.00	35.38	-	0.00
4.056	-0.1	0.000	0.00	-0.00	35.88	-	0.00	35.88	-	0.00
4.111	-0.1	0.000	0.00	-0.00	36.37	-	0.00	36.37	-	0.00
4.167	-0.1	0.000	0.00	-0.00	36.86	-	0.00	36.86	-	0.00
4.222	-0.1	0.000	0.00	-0.00	37.35	-	0.00	37.35	-	0.00
4.278	-0.1	0.000	0.00	-0.00	37.84	-	0.00	37.84	-	0.00
4.333	-0.1	0.000	0.00	-0.00	38.33	-	0.00	38.33	-	0.00
4.389	-0.1	0.000	0.00	-0.00	38.82	-	0.00	38.82	-	0.00
4.444	-0.1	0.000	0.00	-0.00	39.32	-	0.00	39.32	-	0.00
4.500	-0.1	0.000	0.00	-0.00	39.81	-	0.00	39.81	-	0.00
4.556	-0.1	0.000	0.00	-0.00	40.30	-	0.00	40.30	-	0.00
4.611	-0.1	0.000	0.00	-0.00	40.79	-	0.00	40.79	-	0.00
4.667	-0.1	0.000	0.00	-0.00	41.28	-	0.00	41.28	-	0.00
4.722	-0.1	0.000	0.00	-0.00	41.77	-	0.00	41.77	-	0.00
4.778	-0.1	0.000	0.00	-0.00	42.26	-	0.00	42.26	-	0.00
4.833	-0.1	0.000	0.00	-0.00	42.76	-	0.00	42.76	-	0.00
4.889	-0.1	0.000	0.00	-0.00	43.25	-	0.00	43.25	-	0.00
4.944	-0.1	0.000	0.00	-0.00	43.74	-	0.00	43.74	-	0.00
5.000	-0.1	0.000	0.00	-0.00	44.23	-	0.00	44.23	-	0.00
5.056	-0.1	0.000	0.00	-0.00	44.72	-	0.00	44.72	-	0.00
5.111	-0.1	0.000	0.00	-0.00	45.21	-	0.00	45.21	-	0.00
5.167	-0.1	0.000	0.00	-0.00	45.70	-	0.00	45.70	-	0.00
5.222	-0.1	0.000	0.00	-0.00	46.20	-	0.00	46.20	-	0.00
5.278	-0.1	0.000	0.00	-0.00	46.69	-	0.00	46.69	-	0.00
5.333	-0.1	0.000	0.00	-0.00	47.18	-	0.00	47.18	-	0.00
5.389	-0.1	0.000	0.00	-0.00	47.67	-	0.00	47.67	-	0.00
5.444	-0.1	0.000	0.00	-0.00	48.16	-	0.00	48.16	-	0.00
5.500	-0.1	0.000	0.00	-0.00	48.65	-	0.00	48.65	-	0.00
5.556	-0.1	0.000	0.00	-0.00	49.14	-	0.00	49.14	-	0.00
5.611	-0.1	0.000	0.00	-0.00	49.64	-	0.00	49.64	-	0.00
5.667	-0.1	0.000	0.00	-0.00	50.13	-	0.00	50.13	-	0.00
5.722	-0.1	0.000	0.00	-0.00	50.62	-	0.00	50.62	-	0.00
5.778	-0.1	0.000	0.00	-0.00	51.11	-	0.00	51.11	-	0.00
5.833	-0.1	0.000	0.00	-0.00	51.60	-	0.00	51.60	-	0.00
5.889	-0.1	0.000	0.00	-0.00	52.09	-	0.00	52.09	-	0.00
5.944	-0.1	0.000	0.00	-0.00	52.58	-	0.00	52.58	-	0.00
6.000	-0.1	0.000	0.00	-0.00	53.08	-	0.00	53.08	-	0.00
6.056	-0.1	0.000	0.00	-0.00	53.57	-	0.00	53.57	-	0.00

6.111	-0.1	0.000	0.00	-0.00	54.06	-	0.00	54.06	-	0.00
6.167	-0.1	0.000	0.00	-0.00	54.55	-	0.00	54.55	-	0.00
6.222	-0.1	0.000	0.00	-0.00	55.04	-	0.00	55.04	-	0.00
6.278	-0.1	0.000	0.00	-0.00	55.53	-	0.00	55.53	-	0.00
6.333	-0.1	0.000	0.00	-0.00	56.02	-	0.00	56.02	-	0.00
6.389	-0.1	0.000	0.00	-0.00	56.52	-	0.00	56.52	-	0.00
6.444	-0.1	0.000	0.00	-0.00	57.01	-	0.00	57.01	-	0.00
6.500	-0.1	0.000	0.00	-0.00	57.50	-	0.00	57.50	-	0.00
6.556	-0.2	0.000	0.00	-0.00	57.99	-	0.00	57.99	-	0.00
6.611	-0.2	0.000	0.00	-0.00	58.48	-	0.00	58.48	-	0.00
6.667	-0.2	0.000	0.00	-0.00	58.97	-	0.00	58.97	-	0.00
6.722	-0.2	0.000	0.00	-0.00	59.46	-	0.00	59.46	-	0.00
6.778	-0.2	0.000	0.00	-0.00	59.96	-	0.00	59.96	-	0.00
6.833	-0.2	0.000	0.00	-0.00	60.45	-	0.00	60.45	-	0.00
6.889	-0.2	0.000	0.00	-0.00	60.94	-	0.00	60.94	-	0.00
6.944	-0.2	0.000	0.00	-0.00	61.43	-	0.00	61.43	-	0.00
7.000	-0.2	0.000	0.00	0.00	61.92	-	0.00	61.92	-	0.00

Distance relative to top sheet pile wall !

```
Largest positive displacement:      -0.0 [mm]     at X=  0.00 [m]
Largest negative displacement:      -0.2 [mm]     at X=  7.00 [m]
Largest bending stress:           0.000 [N/mm^2] at X=  1.63 [m]
```

SHEET WALL bending; u.c.-value: **0.000**

```
Largest positive moment:            0.00 [kN.m/m']   at X=  1.63 [m]
Largest negative moment:            0.00 [kN.m/m']   at X=  7.00 [m]
Largest positive shear force:       0.00 [kN/m']     at X=  7.00 [m]
Largest negative shear force:      -0.00 [kN/m']     at X=  3.28 [m]
```

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

```
Max. total Active force:                                  113.583 [kN/m']
Max. total Neutral force:                                 219.540 [kN/m']
Max. total Passive force:                                1995.848 [kN/m']
Total force by water stresses:                              0.000 [kN/m']
Total mobilized horizontal soil stresses:                 216.725 [kN/m']
                                                         ----------------
Total horizontal force on sheet pile (water+soil):        216.725 [kN/m']
```

-- RIGHT:

```
Max. total Active force:                                  109.993 [kN/m']
Max. total Neutral force:                                 213.911 [kN/m']
Max. total Passive force:                                1947.978 [kN/m']
Total force by water stresses:                              0.000 [kN/m']
Total mobilized horizontal soil stresses:                 216.725 [kN/m']
                                                         ----------------
Total horizontal force on sheet pile (water+soil):        216.725 [kN/m']
The passive zone is the RIGHT side mobilized for 11.13 %
```

Passive soil resistance; u.c.-value: **0.111**

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

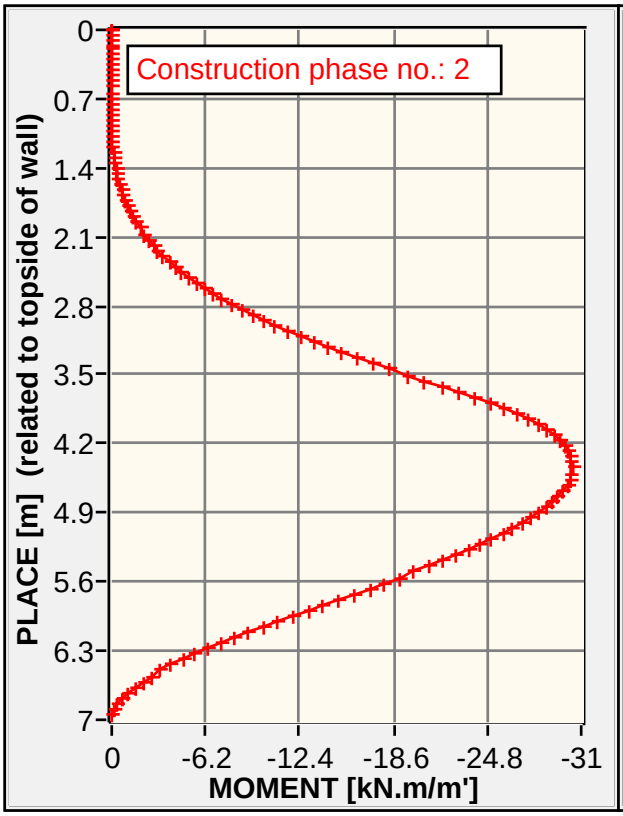
```
Vertical force along sheet pile wall LEFT:                  0.030 [kN/m']
Vertical force along sheet pile wall RIGHT:                -0.002 [kN/m']
                                                          ---------------
Required point foundation resistance sheet wall             0.028 [kN/m']
```

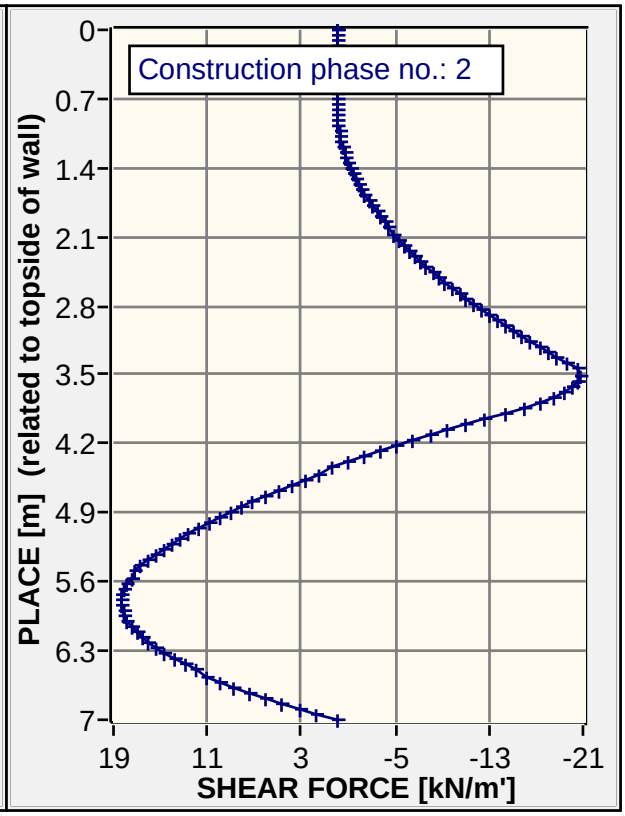
CONSTRUCTION PHASE no: 2

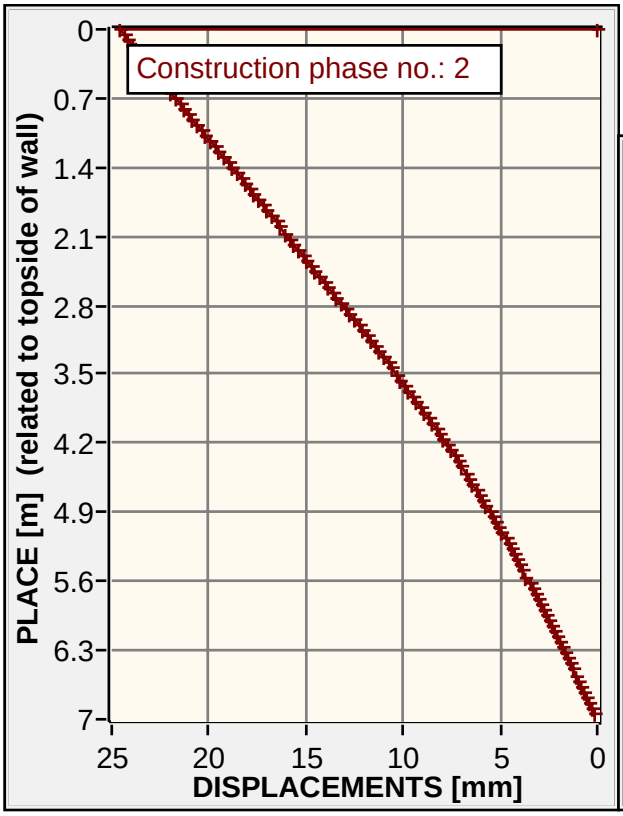
** O U T P U T RESULTS OF THE CALCULATIONS **

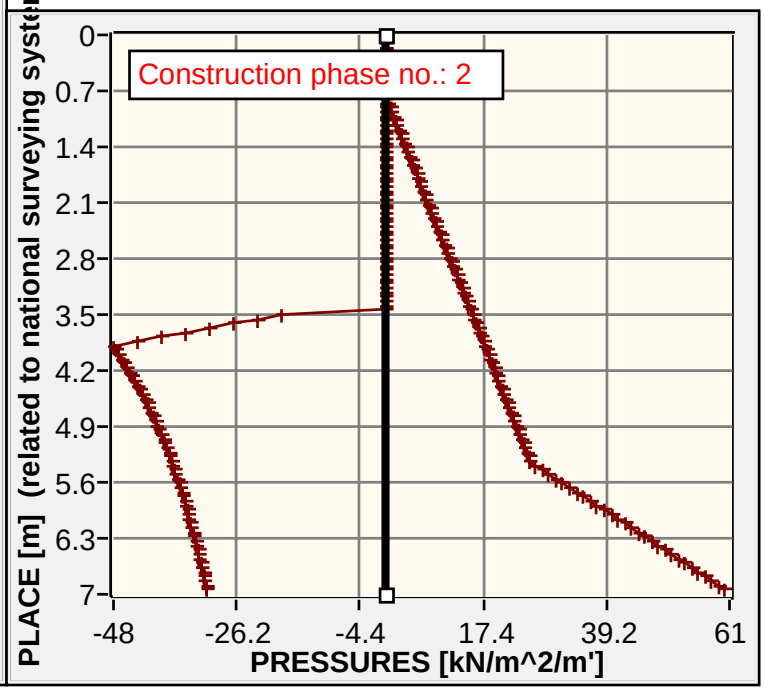
Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3









Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**24.5**	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.050	24.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.100	24.1	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.150	23.9	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.200	23.7	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00

0.250	23.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.305	23.3	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.360	23.1	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.415	22.8	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.470	22.6	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.525	22.4	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.581	22.2	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.636	21.9	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.691	21.7	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.746	21.5	0.000	-0.00	0.00	0.00	-	0.00	0.00	A	0.00
0.801	21.3	0.002	-0.00	-0.01	0.00	-	0.00	0.30	A	0.00
0.856	21.0	0.010	-0.00	-0.03	0.00	-	0.00	0.61	A	0.00
0.911	20.8	0.031	-0.00	-0.07	0.00	-	0.00	0.92	A	0.00
0.966	20.6	0.073	-0.01	-0.13	0.00	-	0.00	1.23	A	0.00
1.021	20.4	0.141	-0.02	-0.21	0.00	-	0.00	1.54	A	0.00
1.076	20.1	0.242	-0.03	-0.30	0.00	-	0.00	1.85	A	0.00
1.131	19.9	0.385	-0.05	-0.41	0.00	-	0.00	2.16	A	0.00
1.186	19.7	0.574	-0.08	-0.54	0.00	-	0.00	2.47	A	0.00
1.242	19.5	0.817	-0.11	-0.69	0.00	-	0.00	2.78	A	0.00
1.297	19.2	1.120	-0.16	-0.85	0.00	-	0.00	3.09	A	0.00
1.352	19.0	1.491	-0.21	-1.03	0.00	-	0.00	3.40	A	0.00
1.407	18.8	1.936	-0.27	-1.22	0.00	-	0.00	3.71	A	0.00
1.462	18.6	2.462	-0.34	-1.43	0.00	-	0.00	4.02	A	0.00
1.517	18.3	3.076	-0.43	-1.66	0.00	-	0.00	4.33	A	0.00
1.572	18.1	3.784	-0.53	-1.91	0.00	-	0.00	4.64	A	0.00
1.627	17.9	4.593	-0.64	-2.17	0.00	-	0.00	4.95	A	0.00
1.682	17.7	5.511	-0.77	-2.46	0.00	-	0.00	5.26	A	0.00
1.737	17.4	6.543	-0.91	-2.75	0.00	-	0.00	5.57	A	0.00
1.792	17.2	7.697	-1.07	-3.07	0.00	-	0.00	5.88	A	0.00
1.847	17.0	8.978	-1.25	-3.40	0.00	-	0.00	6.19	A	0.00
1.903	16.8	10.395	-1.44	-3.75	0.00	-	0.00	6.50	A	0.00
1.958	16.5	11.954	-1.66	-4.12	0.00	-	0.00	6.81	A	0.00
2.013	16.3	13.662	-1.90	-4.50	0.00	-	0.00	7.12	A	0.00
2.068	16.1	15.525	-2.16	-4.90	0.00	-	0.00	7.43	A	0.00
2.123	15.9	17.549	-2.44	-5.32	0.00	-	0.00	7.74	A	0.00
2.178	15.6	19.743	-2.74	-5.75	0.00	-	0.00	8.05	A	0.00
2.233	15.4	22.113	-3.07	-6.21	0.00	-	0.00	8.36	A	0.00
2.288	15.2	24.665	-3.43	-6.67	0.00	-	0.00	8.67	A	0.00
2.343	15.0	27.406	-3.81	-7.16	0.00	-	0.00	8.98	A	0.00
2.398	14.7	30.343	-4.22	-7.66	0.00	-	0.00	9.29	A	0.00
2.453	14.5	33.483	-4.65	-8.18	0.00	-	0.00	9.60	A	0.00
2.508	14.3	36.832	-5.12	-8.72	0.00	-	0.00	9.91	A	0.00
2.564	14.1	40.398	-5.62	-9.27	0.00	-	0.00	10.22	A	0.00
2.619	13.8	44.187	-6.14	-9.85	0.00	-	0.00	10.53	A	0.00
2.674	13.6	48.205	-6.70	-10.43	0.00	-	0.00	10.84	A	0.00
2.729	13.4	52.460	-7.29	-11.04	0.00	-	0.00	11.15	A	0.00
2.784	13.2	56.959	-7.92	-11.66	0.00	-	0.00	11.46	A	0.00
2.839	13.0	61.707	-8.58	-12.30	0.00	-	0.00	11.77	A	0.00
2.894	12.7	66.713	-9.27	-12.96	0.00	-	0.00	12.08	A	0.00
2.949	12.5	71.982	-10.01	-13.63	0.00	-	0.00	12.39	A	0.00
3.004	12.3	77.521	-10.78	-14.32	0.00	-	0.00	12.70	A	0.00
3.059	12.1	83.338	-11.58	-15.03	0.00	-	0.00	13.01	A	0.00
3.114	11.9	89.439	-12.43	-15.76	0.00	-	0.00	13.32	A	0.00
3.169	11.6	95.830	-13.32	-16.50	0.00	-	0.00	13.63	A	0.00
3.225	11.4	102.519	-14.25	-17.26	0.00	-	0.00	13.94	A	0.00
3.280	11.2	109.512	-15.22	-18.03	0.00	-	0.00	14.25	A	0.00
3.335	11.0	116.816	-16.24	-18.83	0.00	-	0.00	14.56	A	0.00
3.390	10.8	124.438	-17.30	-19.64	0.00	-	0.00	14.87	A	0.00
3.445	10.6	132.385	-18.40	-20.47	0.00	-	0.00	15.18	A	0.00
3.500	10.4	140.562	-19.54	-20.80	18.43	P	0.00	15.49	A	0.00
3.556	10.1	148.822	-20.69	-20.53	22.66	P	0.00	15.80	A	0.00
3.611	9.9	156.930	-21.81	-20.04	26.90	P	0.00	16.11	A	0.00
3.667	9.7	164.798	-22.91	-19.33	31.13	P	0.00	16.43	A	0.00
3.722	9.5	172.340	-23.96	-18.41	35.36	P	0.00	16.74	A	0.00
3.778	9.3	179.468	-24.95	-17.26	39.60	P	0.00	17.05	A	0.00
3.833	9.1	186.096	-25.87	-15.90	43.83	P	0.00	17.36	A	0.00
3.889	8.9	192.134	-26.71	-14.32	47.99	-	0.00	17.68	A	0.00
3.944	8.7	197.522	-27.46	-12.66	47.48	-	0.00	17.99	A	0.00
4.000	8.5	202.254	-28.11	-11.05	46.98	-	0.00	18.30	A	0.00
4.056	8.3	206.350	-28.68	-9.48	46.49	-	0.00	18.62	A	0.00
4.111	8.1	209.827	-29.17	-7.95	46.01	-	0.00	18.93	A	0.00
4.167	7.9	212.703	-29.57	-6.47	45.54	-	0.00	19.24	A	0.00
4.222	7.7	214.994	-29.88	-5.03	45.07	-	0.00	19.55	A	0.00
4.278	7.5	216.719	-30.12	-3.63	44.62	-	0.00	19.87	A	0.00

4.333	7.3	217.894	-30.29	-2.28	44.17	-	0.00	20.18	A	0.00
4.389	7.2	218.537	-30.38	-0.97	43.74	-	0.00	20.49	A	0.00
4.444	7.0	218.663	-30.39	0.31	43.31	-	0.00	20.80	A	0.00
4.500	6.8	218.290	-30.34	1.54	42.89	-	0.00	21.12	A	0.00
4.556	6.6	217.432	-30.22	2.73	42.49	-	0.00	21.43	A	0.00
4.611	6.4	216.108	-30.04	3.88	42.09	-	0.00	21.74	A	0.00
4.667	6.2	214.331	-29.79	4.99	41.70	-	0.00	22.05	A	0.00
4.722	6.1	212.118	-29.48	6.06	41.32	-	0.00	22.37	A	0.00
4.778	5.9	209.484	-29.12	7.09	40.95	-	0.00	22.68	A	0.00
4.833	5.7	206.445	-28.70	8.09	40.59	-	0.00	22.99	A	0.00
4.889	5.6	203.014	-28.22	9.05	40.24	-	0.00	23.31	A	0.00
4.944	5.4	199.207	-27.69	9.97	39.90	-	0.00	23.62	A	0.00
5.000	5.2	195.039	-27.11	10.86	39.57	-	0.00	23.93	A	0.00
5.056	5.1	190.524	-26.48	11.71	39.24	-	0.00	24.24	A	0.00
5.111	4.9	185.675	-25.81	12.52	38.92	-	0.00	24.56	A	0.00
5.167	4.7	180.508	-25.09	13.31	38.61	-	0.00	24.87	A	0.00
5.222	4.6	175.035	-24.33	14.05	38.31	-	0.00	25.18	A	0.00
5.278	4.4	169.271	-23.53	14.76	38.02	-	0.00	25.49	A	0.00
5.333	4.3	163.229	-22.69	15.44	37.73	-	0.00	25.81	A	0.00
5.389	4.1	156.921	-21.81	16.08	37.46	-	0.00	26.52	-	0.00
5.444	4.0	150.372	-20.90	16.64	37.18	-	0.00	27.78	-	0.00
5.500	3.8	143.614	-19.96	17.12	36.92	-	0.00	29.02	-	0.00
5.556	3.6	136.680	-19.00	17.52	36.66	-	0.00	30.27	-	0.00
5.611	3.5	129.605	-18.02	17.83	36.41	-	0.00	31.50	-	0.00
5.667	3.3	122.420	-17.02	18.07	36.16	-	0.00	32.73	-	0.00
5.722	3.2	115.160	-16.01	18.22	35.92	-	0.00	33.96	-	0.00
5.778	3.1	107.856	-14.99	18.28	35.68	-	0.00	35.18	-	0.00
5.833	2.9	100.540	-13.98	18.27	35.45	-	0.00	36.39	-	0.00
5.889	2.8	93.246	-12.96	18.18	35.22	-	0.00	37.60	-	0.00
5.944	2.6	86.005	-11.95	18.01	34.99	-	0.00	38.81	-	0.00
6.000	2.5	78.848	-10.96	17.76	34.77	-	0.00	40.01	-	0.00
6.056	2.3	71.808	-9.98	17.42	34.56	-	0.00	41.21	-	0.00
6.111	2.2	64.915	-9.02	17.02	34.34	-	0.00	42.41	-	0.00
6.167	2.0	58.202	-8.09	16.53	34.13	-	0.00	43.60	-	0.00
6.222	1.9	51.699	-7.19	15.96	33.92	-	0.00	44.80	-	0.00
6.278	1.8	45.437	-6.32	15.32	33.72	-	0.00	45.98	-	0.00
6.333	1.6	39.448	-5.48	14.60	33.51	-	0.00	47.17	-	0.00
6.389	1.5	33.761	-4.69	13.80	33.31	-	0.00	48.36	-	0.00
6.444	1.3	28.409	-3.95	12.93	33.11	-	0.00	49.54	-	0.00
6.500	1.2	23.421	-3.26	11.98	32.91	-	0.00	50.72	-	0.00
6.556	1.1	18.829	-2.62	10.95	32.71	-	0.00	51.90	-	0.00
6.611	0.9	14.663	-2.04	9.85	32.52	-	0.00	53.08	-	0.00
6.667	0.8	10.954	-1.52	8.67	32.32	-	0.00	54.26	-	0.00
6.722	0.6	7.732	-1.07	7.41	32.12	-	0.00	55.44	-	0.00
6.778	0.5	5.028	-0.70	6.07	31.93	-	0.00	56.62	-	0.00
6.833	0.4	2.872	-0.40	4.66	31.73	-	0.00	57.80	-	0.00
6.889	0.2	1.295	-0.18	3.18	31.53	-	0.00	58.98	-	0.00
6.944	0.1	0.328	-0.05	1.61	31.34	-	0.00	60.16	-	0.00
7.000	-0.0	0.000	0.00	0.00	31.14	-	0.00	61.34	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: 24.5 [mm] at X= 0.00 [m]
Largest negative displacement: -0.0 [mm] at X= 7.00 [m]
Largest bending stress: 218.663 [N/mm^2] at X= 4.44 [m]
SHEET WALL bending; u.c.-value: **0.616**
Largest positive moment: 0.00 [kN.m/m'] at X= 7.00 [m]
Largest negative moment: -30.39 [kN.m/m'] at X= 4.44 [m]
Largest positive shear force: 18.28 [kN/m'] at X= 5.78 [m]
Largest negative shear force: -20.80 [kN/m'] at X= 3.50 [m]

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 22.178 [kN/m']
Max. total Neutral force: 55.735 [kN/m']
Max. total Passive force: 531.739 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 131.662 [kN/m']

Total horizontal force on sheet pile (water+soil): 131.662 [kN/m']
The passive zone is at the LEFT side mobilized for 24.76 %
Passive soil resistance; u.c.-value: **0.248**

-- RIGHT:

Max. total Active force:	109.993 [kN/m']
Max. total Neutral force:	213.911 [kN/m']
Max. total Passive force:	1947.978 [kN/m']
Total force by water stresses:	0.000 [kN/m']
Total mobilized horizontal soil stresses:	131.687 [kN/m']
Total horizontal force on sheet pile (water+soil):	131.687 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

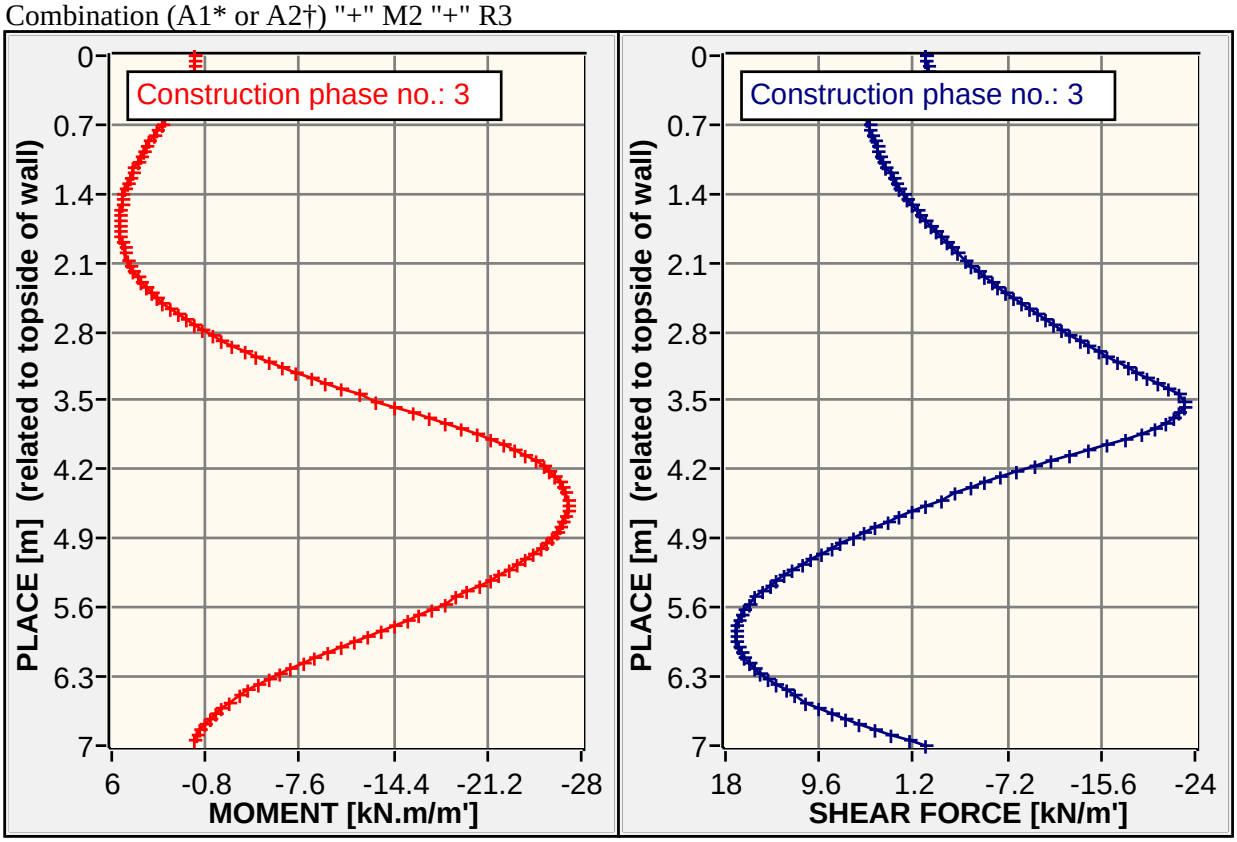
Vertical force along sheet pile wall LEFT:	-2.260 [kN/m']
Vertical force along sheet pile wall RIGHT:	10.689 [kN/m']
Required point foundation resistance sheet wall	8.429 [kN/m']

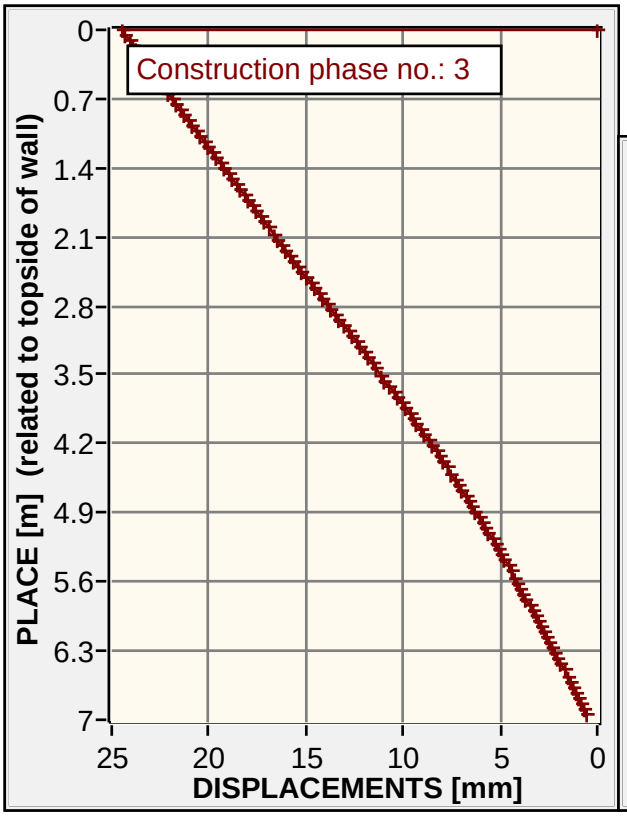
CONSTRUCTION PHASE no: 3

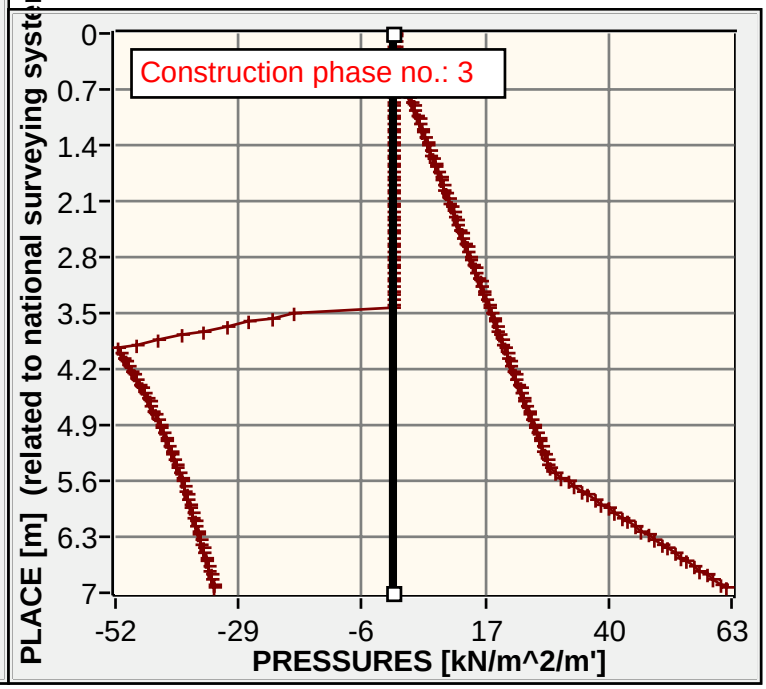
** O U T P U T RESULTS OF THE CALCULATIONS **

Limit situation; partial factors according EC7 for ALL phases included

Combination (A1* or A2†) "+" M2 "+" R3







Distance relative to top sheet pile wall !

Dist. [m]	Displ. [mm]	Stress [N/mm^2]	Moment [kN.m]	Shearfc. [kN]	EffectstL [kN/m^2]	A/P	WaterstL [kN/m^2]	EffectstR [kN/m^2]	A/P	WaterstR [kN/m^2]
0.004	**24.5**	0.000	-0.00	-0.00	0.00	-	0.00	0.34	-	0.00
0.050	24.3	0.003	-0.00	-0.01	0.00	-	0.00	0.25	-	0.00
0.100	24.1	0.010	-0.00	-0.02	0.00	-	0.00	0.16	-	0.00
0.150	23.9	0.020	-0.00	-0.03	0.00	-	0.00	0.06	-	0.00
0.200	23.7	0.033	-0.00	-0.03	0.00	-	0.00	0.00	A	0.00
0.250	23.5	0.049	-0.01	5.64	0.00	-	0.00	0.00	A	0.00
0.305	23.3	2.181	0.30	5.64	0.00	-	0.00	0.17	A	0.00
0.360	23.1	4.407	0.61	5.62	0.00	-	0.00	0.48	A	0.00
0.415	22.9	6.622	0.92	5.58	0.00	-	0.00	0.79	A	0.00
0.470	22.7	8.820	1.23	5.53	0.00	-	0.00	1.10	A	0.00
0.525	22.5	10.994	1.53	5.46	0.00	-	0.00	1.41	A	0.00
0.581	22.3	13.137	1.83	5.38	0.00	-	0.00	1.72	A	0.00
0.636	22.1	15.242	2.12	5.27	0.00	-	0.00	2.03	A	0.00
0.691	21.9	17.303	2.41	5.15	0.00	-	0.00	2.34	A	0.00
0.746	21.7	19.313	2.68	5.01	0.00	-	0.00	2.65	A	0.00
0.801	21.5	21.265	2.96	4.86	0.00	-	0.00	2.96	A	0.00
0.856	21.3	23.152	3.22	4.69	0.00	-	0.00	3.27	A	0.00
0.911	21.1	24.968	3.47	4.50	0.00	-	0.00	3.58	A	0.00
0.966	20.9	26.705	3.71	4.29	0.00	-	0.00	3.89	A	0.00
1.021	20.7	28.358	3.94	4.07	0.00	-	0.00	4.20	A	0.00
1.076	20.5	29.919	4.16	3.83	0.00	-	0.00	4.51	A	0.00
1.131	20.3	31.381	4.36	3.57	0.00	-	0.00	4.82	A	0.00
1.186	20.0	32.738	4.55	3.30	0.00	-	0.00	5.13	A	0.00
1.242	19.8	33.984	4.72	3.01	0.00	-	0.00	5.44	A	0.00
1.297	19.6	35.110	4.88	2.70	0.00	-	0.00	5.75	A	0.00
1.352	19.4	36.110	5.02	2.37	0.00	-	0.00	6.06	A	0.00
1.407	19.2	36.979	5.14	2.03	0.00	-	0.00	6.37	A	0.00
1.462	19.0	37.708	5.24	1.67	0.00	-	0.00	6.68	A	0.00
1.517	18.8	38.291	5.32	1.30	0.00	-	0.00	6.99	A	0.00
1.572	18.6	38.722	5.38	0.90	0.00	-	0.00	7.30	A	0.00
1.627	18.4	38.993	5.42	0.49	0.00	-	0.00	7.61	A	0.00
1.682	18.2	39.098	5.43	0.06	0.00	-	0.00	7.92	A	0.00
1.737	18.0	39.030	5.43	-0.38	0.00	-	0.00	8.23	A	0.00
1.792	17.7	38.783	5.39	-0.84	0.00	-	0.00	8.54	A	0.00
1.847	17.5	38.349	5.33	-1.32	0.00	-	0.00	8.85	A	0.00
1.903	17.3	37.721	5.24	-1.82	0.00	-	0.00	9.16	A	0.00
1.958	17.1	36.894	5.13	-2.33	0.00	-	0.00	9.47	A	0.00

2.013	16.9	35.860	4.98	-2.86	0.00	-	0.00	9.78	A	0.00
2.068	16.7	34.612	4.81	-3.41	0.00	-	0.00	10.09	A	0.00
2.123	16.5	33.144	4.61	-3.97	0.00	-	0.00	10.40	A	0.00
2.178	16.3	31.449	4.37	-4.56	0.00	-	0.00	10.71	A	0.00
2.233	16.0	29.520	4.10	-5.15	0.00	-	0.00	11.02	A	0.00
2.288	15.8	27.350	3.80	-5.77	0.00	-	0.00	11.33	A	0.00
2.343	15.6	24.933	3.47	-6.40	0.00	-	0.00	11.64	A	0.00
2.398	15.4	22.261	3.09	-7.05	0.00	-	0.00	11.95	A	0.00
2.453	15.2	19.329	2.69	-7.72	0.00	-	0.00	12.26	A	0.00
2.508	15.0	16.129	2.24	-8.40	0.00	-	0.00	12.57	A	0.00
2.564	14.8	12.655	1.76	-9.11	0.00	-	0.00	12.88	A	0.00
2.619	14.5	8.899	1.24	-9.82	0.00	-	0.00	13.19	A	0.00
2.674	14.3	4.856	0.67	-10.56	0.00	-	0.00	13.50	A	0.00
2.729	14.1	0.517	0.07	-11.31	0.00	-	0.00	13.81	A	0.00
2.784	13.9	4.123	-0.57	-12.08	0.00	-	0.00	14.12	A	0.00
2.839	13.7	9.071	-1.26	-12.87	0.00	-	0.00	14.43	A	0.00
2.894	13.5	14.335	-1.99	-13.67	0.00	-	0.00	14.74	A	0.00
2.949	13.3	19.920	-2.77	-14.49	0.00	-	0.00	15.05	A	0.00
3.004	13.0	25.834	-3.59	-15.33	0.00	-	0.00	15.36	A	0.00
3.059	12.8	32.083	-4.46	-16.18	0.00	-	0.00	15.67	A	0.00
3.114	12.6	38.674	-5.38	-17.06	0.00	-	0.00	15.98	A	0.00
3.169	12.4	45.615	-6.34	-17.95	0.00	-	0.00	16.29	A	0.00
3.225	12.2	52.911	-7.35	-18.85	0.00	-	0.00	16.60	A	0.00
3.280	12.0	60.569	-8.42	-19.77	0.00	-	0.00	16.91	A	0.00
3.335	11.8	68.597	-9.53	-20.72	0.00	-	0.00	17.22	A	0.00
3.390	11.6	77.001	-10.70	-21.67	0.00	-	0.00	17.53	A	0.00
3.445	11.3	85.787	-11.92	-22.65	0.00	-	0.00	17.84	A	0.00
3.500	11.1	94.863	-13.19	-23.13	18.43	P	0.00	18.15	A	0.00
3.556	10.9	104.087	-14.47	-23.01	22.66	P	0.00	18.47	A	0.00
3.611	10.7	113.219	-15.74	-22.66	26.90	P	0.00	18.78	A	0.00
3.667	10.5	122.171	-16.98	-22.10	31.13	P	0.00	19.09	A	0.00
3.722	10.3	130.855	-18.19	-21.33	35.36	P	0.00	19.40	A	0.00
3.778	10.1	139.185	-19.35	-20.33	39.60	P	0.00	19.72	A	0.00
3.833	9.9	147.074	-20.44	-19.12	43.83	P	0.00	20.03	A	0.00
3.889	9.7	154.434	-21.47	-17.69	48.06	P	0.00	20.34	A	0.00
3.944	9.5	161.181	-22.40	-16.06	51.37	-	0.00	20.66	A	0.00
4.000	9.3	167.264	-23.25	-14.38	50.85	-	0.00	20.97	A	0.00
4.056	9.1	172.684	-24.00	-12.74	50.35	-	0.00	21.28	A	0.00
4.111	8.9	177.458	-24.67	-11.15	49.85	-	0.00	21.59	A	0.00
4.167	8.7	181.605	-25.24	-9.60	49.37	-	0.00	21.91	A	0.00
4.222	8.5	185.142	-25.73	-8.10	48.89	-	0.00	22.22	A	0.00
4.278	8.3	188.087	-26.14	-6.64	48.41	-	0.00	22.53	A	0.00
4.333	8.1	190.457	-26.47	-5.22	47.95	-	0.00	22.84	A	0.00
4.389	7.9	192.269	-26.73	-3.85	47.49	-	0.00	23.16	A	0.00
4.444	7.7	193.541	-26.90	-2.52	47.05	-	0.00	23.47	A	0.00
4.500	7.5	194.290	-27.01	-1.23	46.61	-	0.00	23.78	A	0.00
4.556	7.3	194.532	-27.04	0.02	46.18	-	0.00	24.10	A	0.00
4.611	7.2	194.283	-27.01	1.22	45.75	-	0.00	24.41	A	0.00
4.667	7.0	193.560	-26.90	2.39	45.34	-	0.00	24.72	A	0.00
4.722	6.8	192.380	-26.74	3.51	44.94	-	0.00	25.03	A	0.00
4.778	6.6	190.757	-26.52	4.60	44.54	-	0.00	25.35	A	0.00
4.833	6.4	188.709	-26.23	5.65	44.15	-	0.00	25.66	A	0.00
4.889	6.3	186.249	-25.89	6.66	43.77	-	0.00	25.97	A	0.00
4.944	6.1	183.395	-25.49	7.63	43.40	-	0.00	26.28	A	0.00
5.000	5.9	180.160	-25.04	8.56	43.03	-	0.00	26.60	A	0.00
5.056	5.7	176.560	-24.54	9.45	42.68	-	0.00	26.91	A	0.00
5.111	5.6	172.610	-23.99	10.31	42.33	-	0.00	27.22	A	0.00
5.167	5.4	168.325	-23.40	11.13	41.99	-	0.00	27.53	A	0.00
5.222	5.2	163.719	-22.76	11.92	41.66	-	0.00	27.85	A	0.00
5.278	5.1	158.806	-22.07	12.67	41.33	-	0.00	28.16	A	0.00
5.333	4.9	153.600	-21.35	13.38	41.01	-	0.00	28.47	A	0.00
5.389	4.8	148.116	-20.59	14.06	40.70	-	0.00	28.79	A	0.00
5.444	4.6	142.368	-19.79	14.70	40.39	-	0.00	29.10	A	0.00
5.500	4.4	136.370	-18.96	15.30	40.09	-	0.00	29.99	-	0.00
5.556	4.3	130.147	-18.09	15.81	39.80	-	0.00	31.27	-	0.00
5.611	4.1	123.735	-17.20	16.25	39.51	-	0.00	32.54	-	0.00
5.667	4.0	117.168	-16.29	16.59	39.22	-	0.00	33.80	-	0.00
5.722	3.8	110.481	-15.36	16.85	38.95	-	0.00	35.06	-	0.00
5.778	3.7	103.707	-14.42	17.02	38.67	-	0.00	36.32	-	0.00
5.833	3.5	96.882	-13.47	17.11	38.40	-	0.00	37.57	-	0.00
5.889	3.3	90.037	-12.52	17.11	38.14	-	0.00	38.82	-	0.00
5.944	3.2	83.208	-11.57	17.03	37.88	-	0.00	40.06	-	0.00
6.000	3.0	76.427	-10.62	16.87	37.62	-	0.00	41.30	-	0.00
6.056	2.9	69.727	-9.69	16.63	37.37	-	0.00	42.54	-	0.00

6.111	2.7	63.143	-8.78	16.30	37.12	-	0.00	43.77	-	0.00
6.167	2.6	56.706	-7.88	15.89	36.87	-	0.00	45.00	-	0.00
6.222	2.4	50.449	-7.01	15.39	36.63	-	0.00	46.23	-	0.00
6.278	2.3	44.406	-6.17	14.82	36.38	-	0.00	47.46	-	0.00
6.333	2.2	38.608	-5.37	14.16	36.14	-	0.00	48.68	-	0.00
6.389	2.0	33.089	-4.60	13.43	35.90	-	0.00	49.90	-	0.00
6.444	1.9	27.881	-3.88	12.61	35.66	-	0.00	51.12	-	0.00
6.500	1.7	23.016	-3.20	11.71	35.43	-	0.00	52.34	-	0.00
6.556	1.6	18.527	-2.58	10.73	35.19	-	0.00	53.56	-	0.00
6.611	1.4	14.445	-2.01	9.67	34.96	-	0.00	54.78	-	0.00
6.667	1.3	10.803	-1.50	8.53	34.72	-	0.00	56.00	-	0.00
6.722	1.1	7.634	-1.06	7.31	34.49	-	0.00	57.21	-	0.00
6.778	1.0	4.970	-0.69	6.00	34.26	-	0.00	58.43	-	0.00
6.833	0.8	2.842	-0.39	4.62	34.02	-	0.00	59.64	-	0.00
6.889	0.7	1.283	-0.18	3.16	33.79	-	0.00	60.86	-	0.00
6.944	0.5	0.325	-0.05	1.61	33.56	-	0.00	62.08	-	0.00
7.000	0.4	0.000	0.00	0.00	33.32	-	0.00	63.29	-	0.00

Distance relative to top sheet pile wall !

Largest positive displacement: 24.5 [mm] at X= 0.00 [m]
Largest negative displacement: 0.4 [mm] at X= 7.00 [m]
Largest bending stress: 194.532 [N/mm^2] at X= 4.56 [m]
SHEET WALL bending; u.c.-value: **0.548**
Largest positive moment: 5.43 [kN.m/m'] at X= 1.68 [m]
Largest negative moment: -27.04 [kN.m/m'] at X= 4.56 [m]
Largest positive shear force: 17.11 [kN/m'] at X= 5.89 [m]
Largest negative shear force: -23.13 [kN/m'] at X= 3.50 [m]

Anchors at the RIGHT side:

Anchor- or strut-force (INCLINED) no. 1 : 13.424 [kN/m'] at X= 0.250 [m]
Normal force ANCHOR; u.c.-value: **0.011**

**** Specific numbers for horizontal stability of the soil (effective stresses) ****

-- LEFT:

Max. total Active force: 22.178 [kN/m']
Max. total Neutral force: 55.735 [kN/m']
Max. total Passive force: 531.739 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 141.372 [kN/m']
Total horizontal force on sheet pile (water+soil): 141.372 [kN/m']
The passive zone is at the LEFT side mobilized for 26.59 %
Passive soil resistance; u.c.-value: **0.266**

-- RIGHT:

Max. total Active force: 127.294 [kN/m']
Max. total Neutral force: 242.845 [kN/m']
Max. total Passive force: 2194.024 [kN/m']
Total force by water stresses: 0.000 [kN/m']
Total mobilized horizontal soil stresses: 147.057 [kN/m']
Total horizontal force on sheet pile (water+soil): 147.057 [kN/m']

**** VERTICAL EQUILIBRIUM SHEET PILE WALL ****

Vertical force along sheet pile wall LEFT: -2.736 [kN/m']
Vertical force along sheet pile wall RIGHT: 25.731 [kN/m']
Required point foundation resistance sheet wall 22.995 [kN/m']

*** Maximum values over ALL construction stages ***

Maximum displacement (absolute): 24.5 [mm]
Maximum moment (absolute): 30.39 [kN.m/m']
Maximal u.c-value SHEET WALL: **0.616**
Maximal u.c.-value ANCHOR(s): **0.011**
Maximal u.c.-value SOIL LEFT passive: **0.266**

***** End of the calculation**