

## Report for D-Sheet Piling 24.1

Design of Diaphragm and Sheet Pile Walls  
Developed by Deltares

Date of report: 20-6-2025  
Time of report: 13:02:38  
Report with version: 24.1.1.1735

Date of calculation: 20-6-2025  
Time of calculation: 13:02:22  
Calculated with version: 24.1.1.1735

File name: damwand berekening diep (20-06-2025) stijghoogte 1mverlaagd

Project identification: Van Eeghestraat 94-98 te Amsterdam  
PAL 3050 S325 (reductiefactor 86%)  
Installatie = NAP -11,0 m, L = 9,4 m

Verification according to National Annex of Eurocode 7 in the Netherlands (NEN 9997-1+C2:2017).

## 1 Summary

### 1.1 Overview per Stage and Test

Stage nr.	Verification type	Displacement [mm]	Moment [kNm]	Shear force [kN]	Mob. perc. moment [%]	Mob. perc. resistance [%]	Status
1	EC7(NL)-Step 6.1		1.85	2.40	0.0	27.7	
1	EC7(NL)-Step 6.2		1.19	1.97	0.0	27.6	
1	EC7(NL)-Step 6.3		2.34	3.11	0.0	29.0	
1	EC7(NL)-Step 6.4		1.44	2.48	0.0	29.0	
1	EC7(NL)-Step 6.5	3.9	2.50	3.76	0.0	21.7	
1	EC7(NL)-Step 6.5 x 1.200		3.00	4.51			
2	EC7(NL)-Step 6.1		20.12	13.50	77.0	80.3	
2	EC7(NL)-Step 6.2		12.19	9.45	<b>77.7</b>	<b>82.5</b>	
2	EC7(NL)-Step 6.3		15.61	12.79	66.6	70.1	
2	EC7(NL)-Step 6.4		8.55	8.90	66.8	71.7	
2	EC7(NL)-Step 6.5	19.0	8.62	6.03	47.4	51.4	
2	EC7(NL)-Step 6.5 x 1.200		10.34	7.23			
3	EC7(NL)-Step 6.1		<b>21.32</b>	-27.84	0.0	79.2	
3	EC7(NL)-Step 6.2		16.65	-30.82	0.0	79.5	
3	EC7(NL)-Step 6.3		19.20	-29.16	0.0	71.3	
3	EC7(NL)-Step 6.4		15.08	-31.88	0.0	71.3	
3	EC7(NL)-Step 6.5	<b>20.1</b>	13.84	-29.99	0.0	58.4	
3	EC7(NL)-Step 6.5 x 1.200		16.61	<b>-35.98</b>			
Max		<b>20.1</b>	<b>21.32</b>	<b>-35.98</b>	<b>77.7</b>	<b>82.5</b>	

### 1.2 Anchors and Struts

Stage nr.	Verification type	Anchor/strut Bovenstempel			Anchor/strut werkvloer		
		Force [kN]	State	Status	Force [kN]	State	Status
2	EC7(NL)-Step 6.1	13.81	Elastic				
2	EC7(NL)-Step 6.2	9.76	Elastic				
2	EC7(NL)-Step 6.3	13.11	Elastic				
2	EC7(NL)-Step 6.4	9.21	Elastic				
2	EC7(NL)-Step 6.5	6.34	Elastic				
2	EC7(NL)-Step 6.5 x 1.200	7.61	Elastic				
3	EC7(NL)-Step 6.1	<b>21.42</b>	Elastic		45.51	Elastic	
3	EC7(NL)-Step 6.2	18.43	Elastic		48.25	Elastic	
3	EC7(NL)-Step 6.3	20.09	Elastic		42.48	Elastic	
3	EC7(NL)-Step 6.4	17.37	Elastic		45.16	Elastic	
3	EC7(NL)-Step 6.5	15.89	Elastic		42.98	Elastic	
3	EC7(NL)-Step 6.5 x 1.200	19.07	Elastic		<b>51.58</b>	Elastic	
Max		<b>21.42</b>			<b>51.58</b>		

The force is in the direction of the anchor/strut.

### 1.3 Overall Stability per Stage

Stage name	Stability factor [-]
1 Installatie damwand + bovenstempeling	4.42
2 Ontgraving met steunbermen	1.30
3 Ontgraving volledig met glijstempel	1.13

### 1.4 Warnings

Phi values:

In the profile(s) below, the difference between the highest and lowest phi in the materials is more than 15 degrees. According to Cur-166 article 4.5.8 a Culmann calculation with straight slip surfaces is not allowed. Either reduce your phi's or try a Ka, Ko, Kp calculation.

Profile(s):

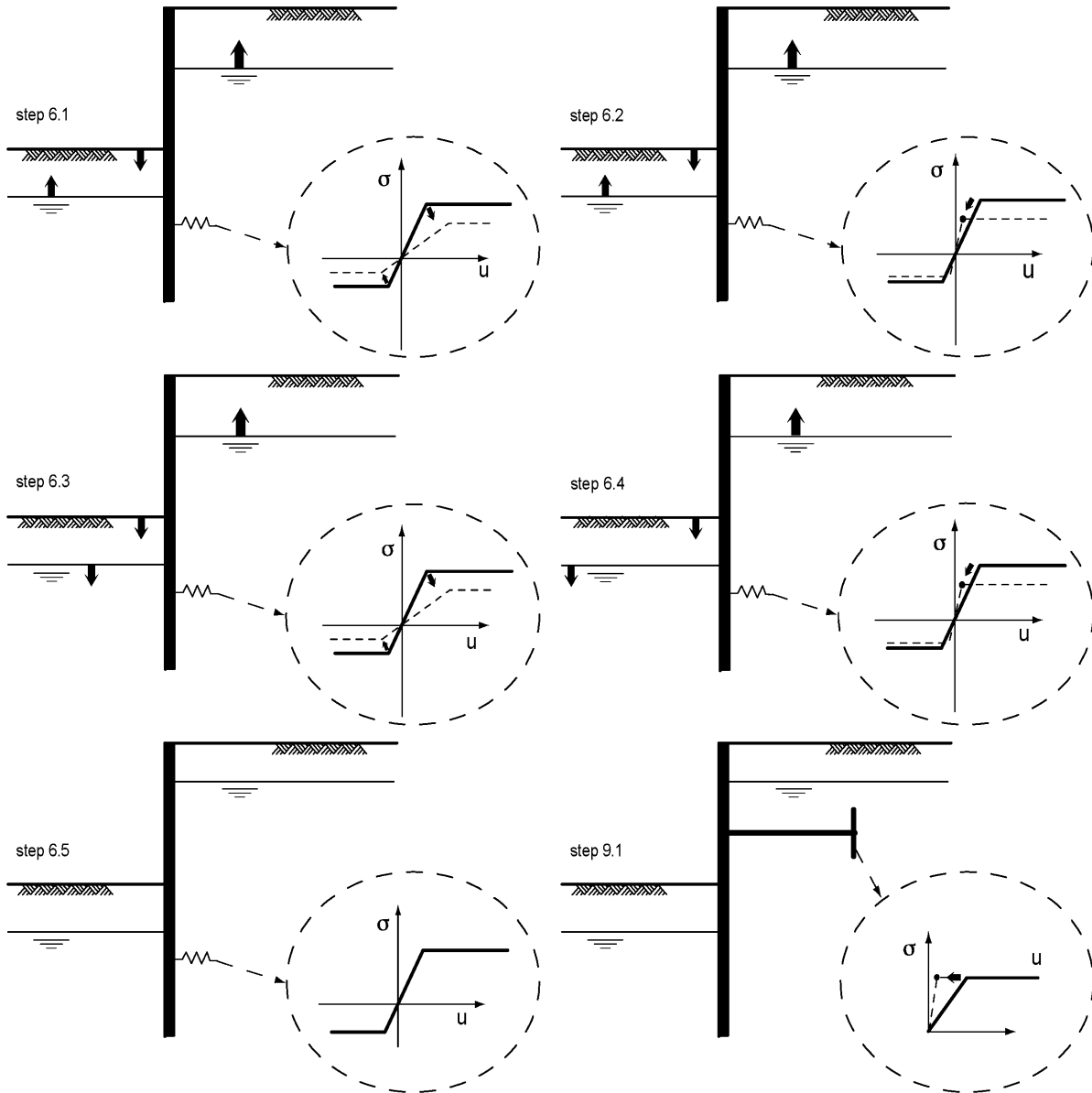
MV links

MV rechts

MV rechts ontg

MV rechts max ontgrav

1.5 CUR Verification Steps



End of Report