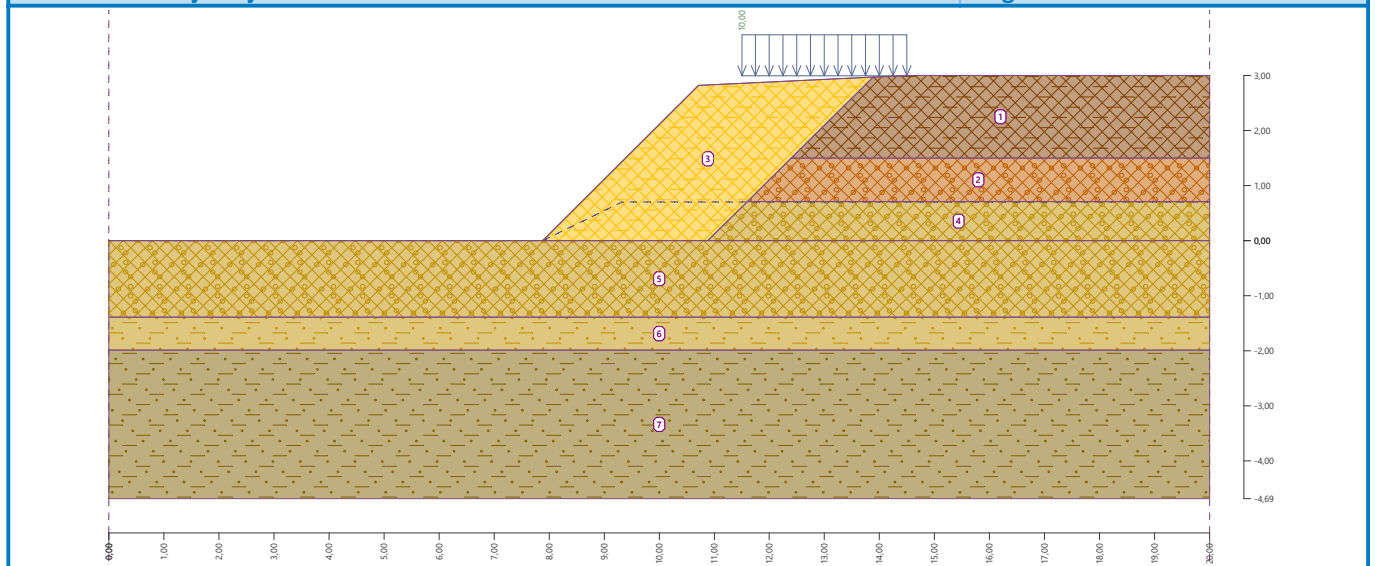


No.	Surface position	Coordinates of surface points [m]				Assigned soil
		x	z	x	z	
3		10,88	0,00	11,60	0,71	Naujai supilamas nesankabus gruntas
		12,40	1,50	13,89	2,97	
		10,71	2,82	7,88	0,00	
4		20,00	0,00	20,00	0,71	IGS2 (Piltinis smėlingas molis)
		11,60	0,71	10,88	0,00	
5		20,00	-1,39	20,00	0,00	IGS2 (Piltinis smėlingas molis)
		10,88	0,00	7,88	0,00	
		0,00	0,00	0,00	-1,39	
6		20,00	-1,99	20,00	-1,39	IGS15 (Smėlingas moreninis molis)
		0,00	-1,39	0,00	-1,99	
7		0,00	-1,99	0,00	-4,69	IGS17 (Smėlingas molis)
		20,00	-4,69	20,00	-1,99	

Name : Skaičiuojamoji schema

Stage : 1



Surcharge

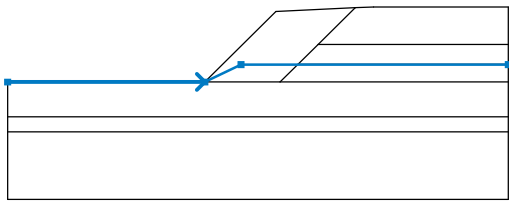
No.	Type	Type of action	Location z [m]	Origin x [m]	Length l [m]	Width b [m]	Slope α [°]	Magnitude		
								q, q_1, f, F, x	q_2, z	unit
1	strip	variable	on terrain	x = 11,50	l = 3,00		0,00	10,00		kN/m ²

Surcharges

No.	Name
1	Pėsčiųjų ir dviračių apkrova

Water

Water type : GWT

No.	GWT location	Coordinates of GWT points [m]					
		x	z	x	z	x	z
1		0,00	0,00	7,88	0,00	9,32	0,70
		20,00	0,70				

Settings of the stage of construction

Design situation : permanent

Results (Construction stage 1)

Analysis 1 (stage 1)

Circular slip surface

Slip surface parameters					
Center :	x =	6,81 [m]	Angles :	$\alpha_1 =$	14,11 [°]
	z =	4,27 [m]		$\alpha_2 =$	70,93 [°]
Radius :	R =	4,40 [m]			
The slip surface after optimization.					

Total weight of soil above the slip surface: 36,81 kN/m

Slope stability verification (Bishop)

Sum of active forces : $F_a = 23,50$ kN/m

Sum of passive forces : $F_p = 16,53$ kN/m

Sliding moment : $M_a = 103,41$ kNm/m

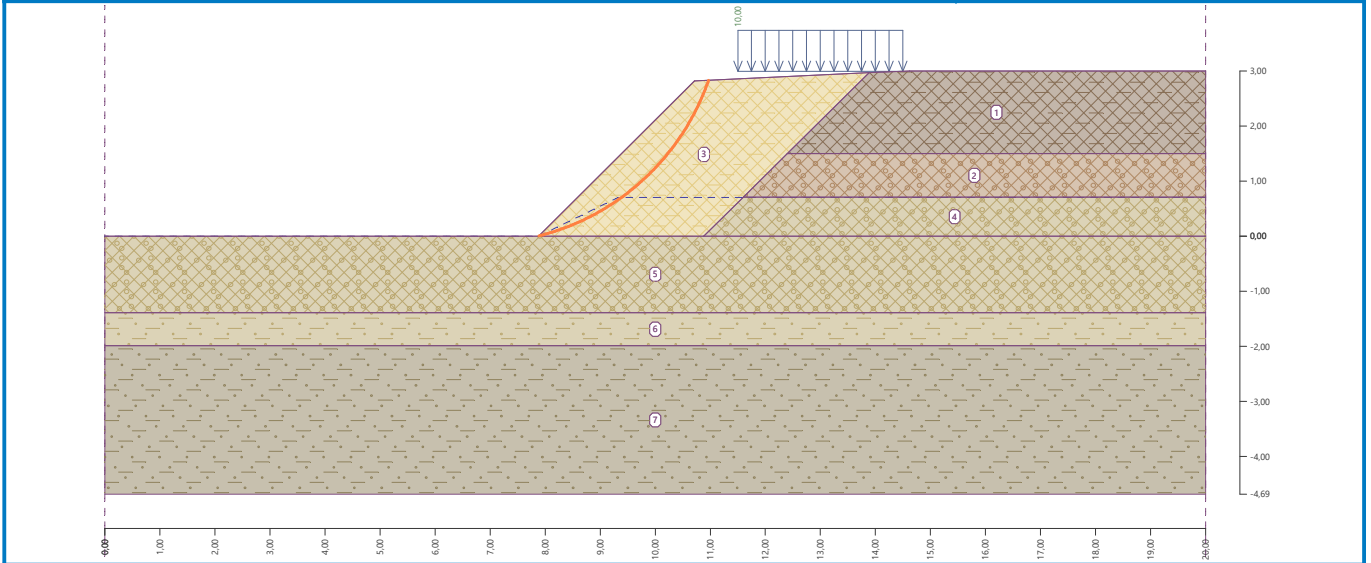
Resisting moment : $M_p = 72,72$ kNm/m

Utilization : 142,2 %

Slope stability NOT ACCEPTABLE

Name : Analysis

Stage - analysis : 1 - 1



Analysis 2 (stage 1)

Circular slip surface

Slip surface parameters					
Center :	x =	6,81 [m]	Angles :	$\alpha_1 =$	14,11 [°]
	z =	4,27 [m]		$\alpha_2 =$	70,93 [°]
Radius :	R =	4,40 [m]			
The slip surface after optimization.					

Total weight of soil above the slip surface: 36,81 kN/m

Slope stability verification (Bishop)

Sum of active forces : $F_a = 23,50$ kN/m

Sum of passive forces : $F_p = 16,53$ kN/m

Sliding moment : $M_a = 103,41$ kNm/m

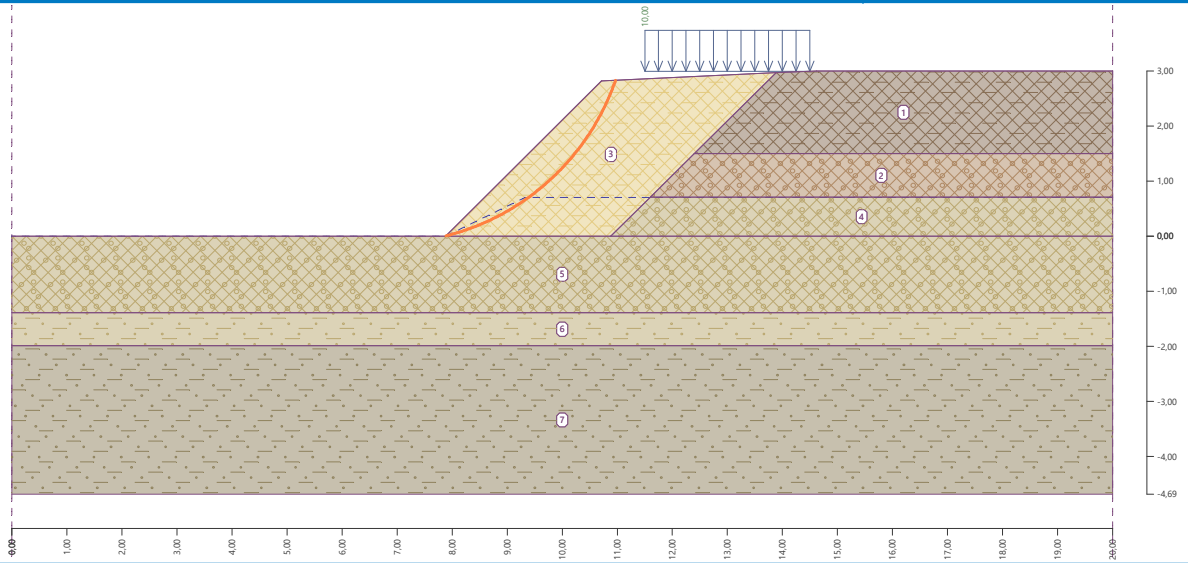
Resisting moment : $M_p = 72,72$ kNm/m

Utilization : 142,2 %

Slope stability NOT ACCEPTABLE

Name : Analysis

Stage - analysis : 1 - 2



Input data (Construction stage 2)

Assigning and surfaces

No.	Surface position	Coordinates of surface points [m]				Assigned soil
		x	z	x	z	
1		20,00	1,50	20,00	3,00	IGS8 (Piltinis tankus žvyringas smėlis)
		14,62	3,00	13,89	2,97	
		12,40	1,50			
2		20,00	0,71	20,00	1,50	IGS4 (Piltinis smėlingas molis)
		12,40	1,50	11,60	0,71	
3		10,88	0,00	11,60	0,71	Naujai supilamas nesankabus gruntas
		12,40	1,50	13,89	2,97	
		10,71	2,82	7,88	0,00	
4		20,00	0,00	20,00	0,71	IGS2 (Piltinis smėlingas molis)
		11,60	0,71	10,88	0,00	
5		20,00	-1,39	20,00	0,00	IGS2 (Piltinis smėlingas molis)
		10,88	0,00	7,88	0,00	
		0,00	0,00	0,00	-1,39	
6		20,00	-1,99	20,00	-1,39	IGS15 (Smėlingas moreninis molis)
		0,00	-1,39	0,00	-1,99	
7		0,00	-1,99	0,00	-4,69	IGS17 (Smėlingas molis)
		20,00	-4,69	20,00	-1,99	

Reinforcements

No.	Reinforcement	Point to the left		Point to the right		Length L [m]	Strength R _t [kN/m]	Pull out resist.	End of reinf.
	new	x [m]	z [m]	x [m]	z [m]				
1	Yes	8,88	1,00	11,88	1,00	3,00	18,54	C = 0,90	Fixed
2	Yes	9,39	1,50	12,39	1,50	3,00	18,54	C = 0,90	Fixed

No.	Reinforcement	Point to the left		Point to the right		Length	Strength	Pull out resist.	End of reinf.
	new	x [m]	z [m]	x [m]	z [m]	L [m]	R_t [kN/m]		
3	Yes	9,89	2,00	12,89	2,00	3,00	18,54	C = 0,90	Fixed
4	Yes	8,38	0,50	11,38	0,50	3,00	18,54	C = 0,90	Fixed
5	Yes	7,88	0,00	10,88	0,00	3,00	18,54	C = 0,90	Fixed

Surcharge

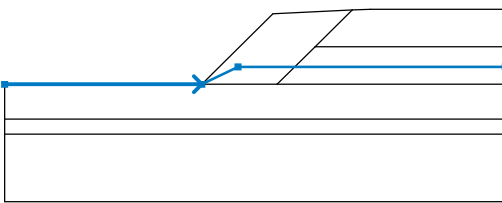
No.	Surcharge		Type	Type of action	Location	Origin	Length	Width	Slope	Magnitude	
	new	change								q, q ₁ , f, F, x	q ₂ , z
1	No	No	strip	variable	on terrain	x = 11,50	l = 3,00		0,00	10,00	kN/m ²

Surcharges

No.	Name
1	Pėsčiųjų ir dviračių apkrova

Water

Water type : GWT

No.	GWT location	Coordinates of GWT points [m]					
		x	z	x	z	x	z
1		0,00	0,00	7,88	0,00	9,32	0,70
		20,00	0,70				

Settings of the stage of construction

Design situation : permanent

Results (Construction stage 2)

Analysis 1 (stage 2)

Circular slip surface

Slip surface parameters					
Center :	x =	9,16 [m]	Angles :	$\alpha_1 =$	-15,62 [°]
	z =	4,18 [m]		$\alpha_2 =$	72,67 [°]
Radius :	R =	4,18 [m]			
The slip surface after optimization.					

Total weight of soil above the slip surface: 157,49 kN/m

Reinforcement bearing capacity

Reinforcement	Bearing capacity [kN/m]
1	0,22
2	0,55
3	2,62
4	9,01

5 0,00

Slope stability verification (Bishop)

Sum of active forces : $F_a = 78,05$ kN/m

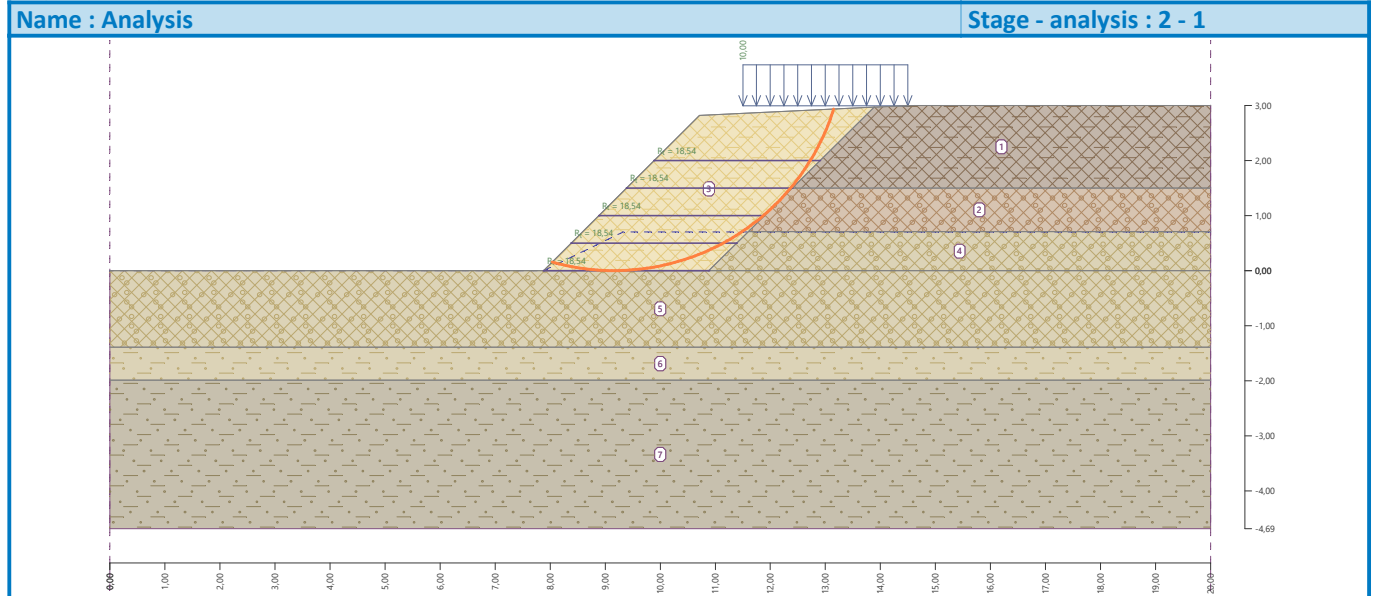
Sum of passive forces : $F_p = 92,42$ kN/m

Sliding moment : $M_a = 326,27$ kNm/m

Resisting moment : $M_p = 386,32$ kNm/m

Utilization : 84,5 %

Slope stability ACCEPTABLE



Analysis 2 (stage 2)

Polygonal slip surface

Coordinates of slip surface points [m]									
x	z	x	z	x	z	x	z	x	z
7,89	0,01	9,88	0,02	10,24	0,12	11,35	0,49	11,90	1,07
13,04	2,13	13,45	2,66	13,68	2,96				

The slip surface after optimization.

Total weight of soil above the slip surface: 167,39 kN/m

Reinforcement bearing capacity

Reinforcement Bearing capacity [kN/m]

1	1,44
2	0,64
3	0,00
4	0,77
5	0,00

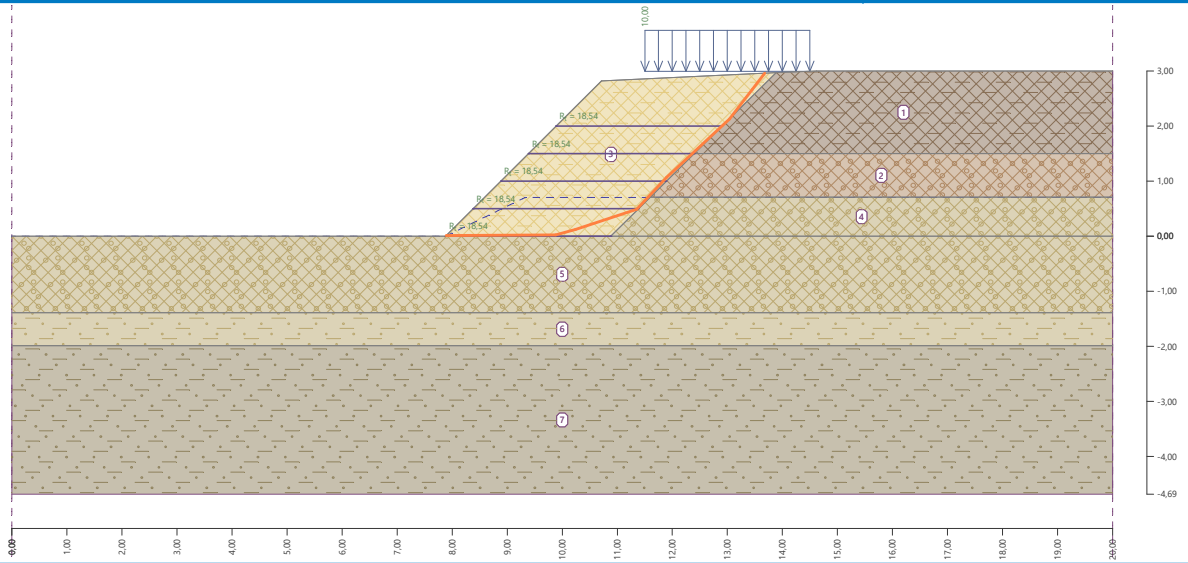
Slope stability verification (Morgenstern-Price)

Utilization : 94,3 %

Slope stability ACCEPTABLE

Name : S

Stage - analysis : 2 - 2



Gabion analysis

Input data

Task : Valstybinės reikšmės krašto kelio Nr. 153 Joniškis–Žagarė–Naujoji Akmenė ruožas nuo 22,770 iki 26,750 km, įrengiant taką
Part : Gabionų atraminės sienutės skaičiavimai ties PK203+20
Description : Pagal gręžinį Nr.16
Customer : UAB "ViaProjektas"
Date : 2025-03-03
Project ID : GA

Settings

Standard - EN 1997 - DA3

Wall analysis

Verification methodology : according to EN 1997
Active earth pressure calculation : Coulomb
Passive earth pressure calculation : Caquot-Kerisel
Earthquake analysis : Mononobe-Okabe
Shape of earth wedge : Calculate as skew
Allowable eccentricity : 0,333
Design approach : 3 - reduction of actions (GEO, STR) and soil parameters

Partial factors on actions (A)					
Permanent design situation					
		State STR		State GEO	
		Unfavourable	Favourable	Unfavourable	Favourable
Permanent actions :	$\gamma_G =$	1,35 [-]	1,00 [-]	1,00 [-]	1,00 [-]
Variable actions :	$\gamma_Q =$	1,50 [-]	0,00 [-]	1,30 [-]	0,00 [-]
Water load :	$\gamma_w =$			1,00 [-]	

Partial factors for soil parameters (M)			
Permanent design situation			
Partial factor on internal friction :		$\gamma_\phi =$	1,25 [-]
Partial factor on effective cohesion :		$\gamma_c =$	1,25 [-]
Partial factor on undrained shear strength :		$\gamma_{cu} =$	1,40 [-]
Partial factor on Poisson's ratio :		$\gamma_\nu =$	1,00 [-]

Partial factors for variable actions			
Permanent design situation			
Factor for combination value :		$\psi_0 =$	0,70 [-]
Factor for frequent value :		$\psi_1 =$	0,50 [-]
Factor for quasi-permanent value :		$\psi_2 =$	0,30 [-]

Material of blocks - filling

No.	Name	γ [kN/m ³]	ϕ [°]	c [kPa]
1	Gabionas	18,00	45,00	0,00

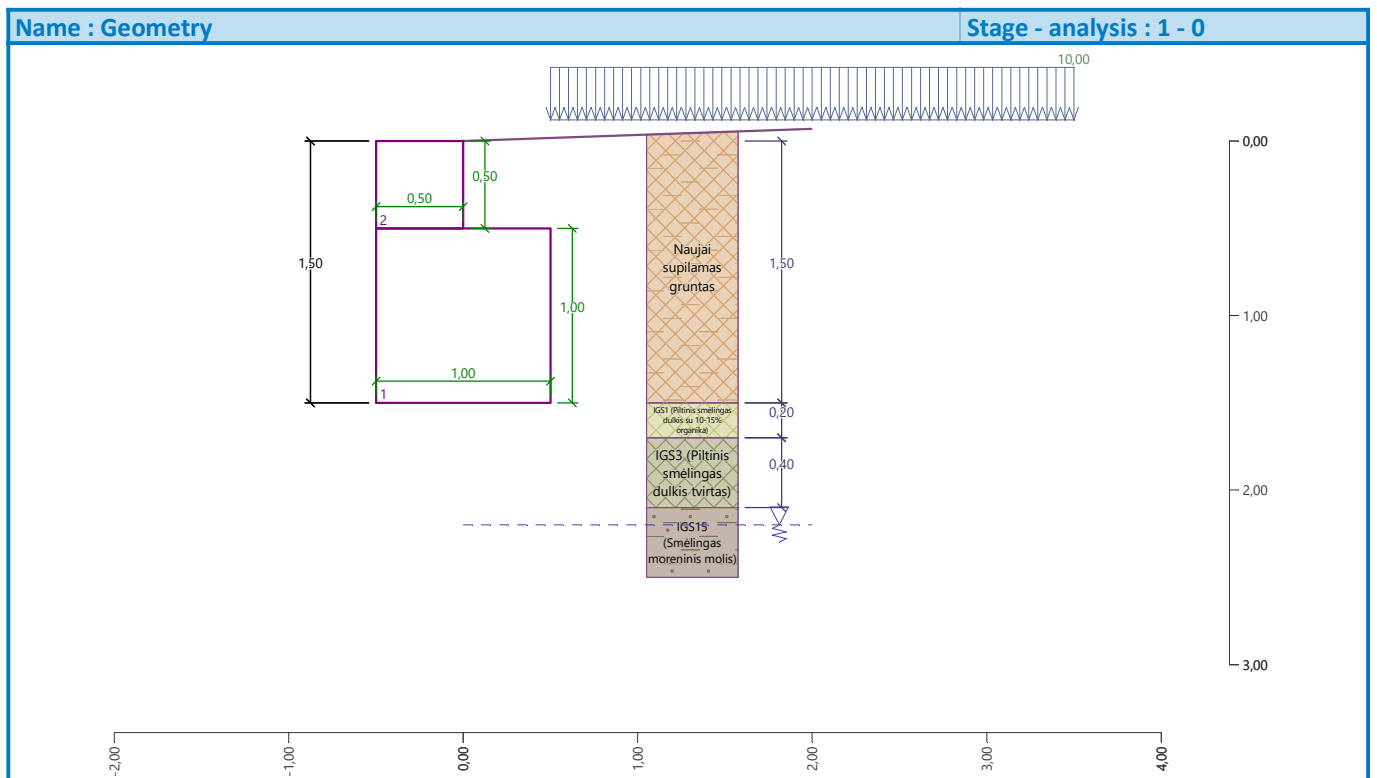
Material of blocks - mesh

No.	Name	Strength overh. R_t [kN/m]	Spacing of vert. meshes v [m]	Bear.cap. of front joint R_s [kN/m]
1	Gabionas	40,00	1,00	20,00

Geometry of structure

No.	Width b [m]	Height h [m]	Offset a [m]	Material
2	0,50	0,50	0,00	Gabionas
1	1,00	1,00	-	Gabionas

Gabion slope = 0,00 °
Overall height = 1,50 m
Overall wall volume = 1,25 m³/m



Basic soil parameters

No.	Name	Pattern	ϕ_{ef} [°]	c_{ef} [kPa]	γ [kN/m ³]	γ_{su} [kN/m ³]	δ [°]
1	IGS1 (Piltinis smėlingas dulkis su 10-15% organika)		20,00	10,00	18,14	9,14	20,00
2	IGS3 (Piltinis smėlingas dulkis tvirtas)		28,00	10,00	20,05	11,05	20,00
3	IGS15 (Smėlingas moreninis molis)		23,00	34,00	21,41	12,41	20,00
4	Naujai supilamas gruntas		30,00	1,00	20,00	11,00	20,00

All soils are considered as cohesionless for at rest pressure analysis.

Soil parameters

IGS1 (Piltinis smėlingas dulkis su 10-15% organika)

Unit weight : $\gamma = 18,14 \text{ kN/m}^3$
 Stress-state : effective
 Angle of internal friction : $\phi_{ef} = 20,00^\circ$
 Cohesion of soil : $c_{ef} = 10,00 \text{ kPa}$
 Angle of friction struc.-soil : $\delta = 20,00^\circ$
 Soil : cohesionless
 Saturated unit weight : $\gamma_{sat} = 19,14 \text{ kN/m}^3$

IGS3 (Piltinis smėlingas dulkis tvirtas)

Unit weight : $\gamma = 20,05 \text{ kN/m}^3$
 Stress-state : effective
 Angle of internal friction : $\phi_{ef} = 28,00^\circ$
 Cohesion of soil : $c_{ef} = 10,00 \text{ kPa}$
 Angle of friction struc.-soil : $\delta = 20,00^\circ$
 Soil : cohesionless
 Saturated unit weight : $\gamma_{sat} = 21,05 \text{ kN/m}^3$





IGS15 (Smėlingas moreninis molis)

Unit weight : $\gamma = 21,41 \text{ kN/m}^3$
 Stress-state : effective
 Angle of internal friction : $\phi_{ef} = 23,00^\circ$
 Cohesion of soil : $c_{ef} = 34,00 \text{ kPa}$
 Angle of friction struc.-soil : $\delta = 20,00^\circ$
 Soil : cohesionless
 Saturated unit weight : $\gamma_{sat} = 22,41 \text{ kN/m}^3$

Naujai supilamas gruntas

Unit weight : $\gamma = 20,00 \text{ kN/m}^3$
 Stress-state : effective
 Angle of internal friction : $\phi_{ef} = 30,00^\circ$
 Cohesion of soil : $c_{ef} = 1,00 \text{ kPa}$
 Angle of friction struc.-soil : $\delta = 20,00^\circ$
 Soil : cohesionless
 Saturated unit weight : $\gamma_{sat} = 21,00 \text{ kN/m}^3$

Geological profile and assigned soils

No.	Thickness of layer t [m]	Depth z [m]	Assigned soil	Pattern
1	1,50	0,00 .. 1,50	Naujai supilamas gruntas	
2	0,20	1,50 .. 1,70	IGS1 (Piltinis smėlingas dulkis su 10-15% organika)	
3	0,40	1,70 .. 2,10	IGS3 (Piltinis smėlingas dulkis tvirtas)	
4	-	2,10 .. ∞	IGS15 (Smėlingas moreninis molis)	

Foundation

Type of foundation : soil from geological profile

Terrain profile

Terrain behind construction has the slope 1: 28,64 (slope angle is 2,00 °).

Water influence

GWT behind the structure lies at a depth of 2,20 m

Uplift in foot. bottom due to different pressures is not considered.

Input surface surcharges

No.	Surcharge		Action	Mag.1 [kN/m ²]	Mag.2 [kN/m ²]	Ord.x x [m]	Length l [m]	Depth z [m]
	new	change						
1	Yes		permanent	10,00		0,50	3,00	on terrain

No.	Name
1	Dviračių ir pėsčiųjų apkrova

Resistance on front face of the structure

Resistance on front face of the structure is not considered.

Global settings

Minimum pressure is considered as $\sigma_{a,min} = 0,20\sigma_z$

Settings of the stage of construction

Design situation : permanent

Reduction of soil/soil friction angle : do not reduce

Verification No. 1

Forces acting on construction

Name	F _{hor} [kN/m]	App.Pt. z [m]	F _{vert} [kN/m]	App.Pt. x [m]	Coeff. overtur.	Coeff. sliding	Coeff. stress
Weight - wall	0,00	-0,65	22,50	0,45	1,000	1,000	1,350
Weight - earth wedge	0,00	-1,22	3,63	0,69	1,000	1,000	1,000
Active pressure	7,30	-0,50	3,10	0,97	1,000	1,000	1,000
Water pressure	0,00	-1,50	0,00	0,72	1,000	1,000	1,000
Dviračių ir pėsčiųjų apkrova	4,26	-0,63	2,08	0,95	1,000	1,000	1,000

Verification of complete wall

Check for overturning stability

Resisting moment $M_{res} = 17,59$ kNm/m

Overturning moment $M_{ovr} = 6,34$ kNm/m

Wall for overturning is SATISFACTORY

Check for slip

Resisting horizontal force $H_{res} = 14,87$ kN/m

Active horizontal force $H_{act} = 11,56$ kN/m

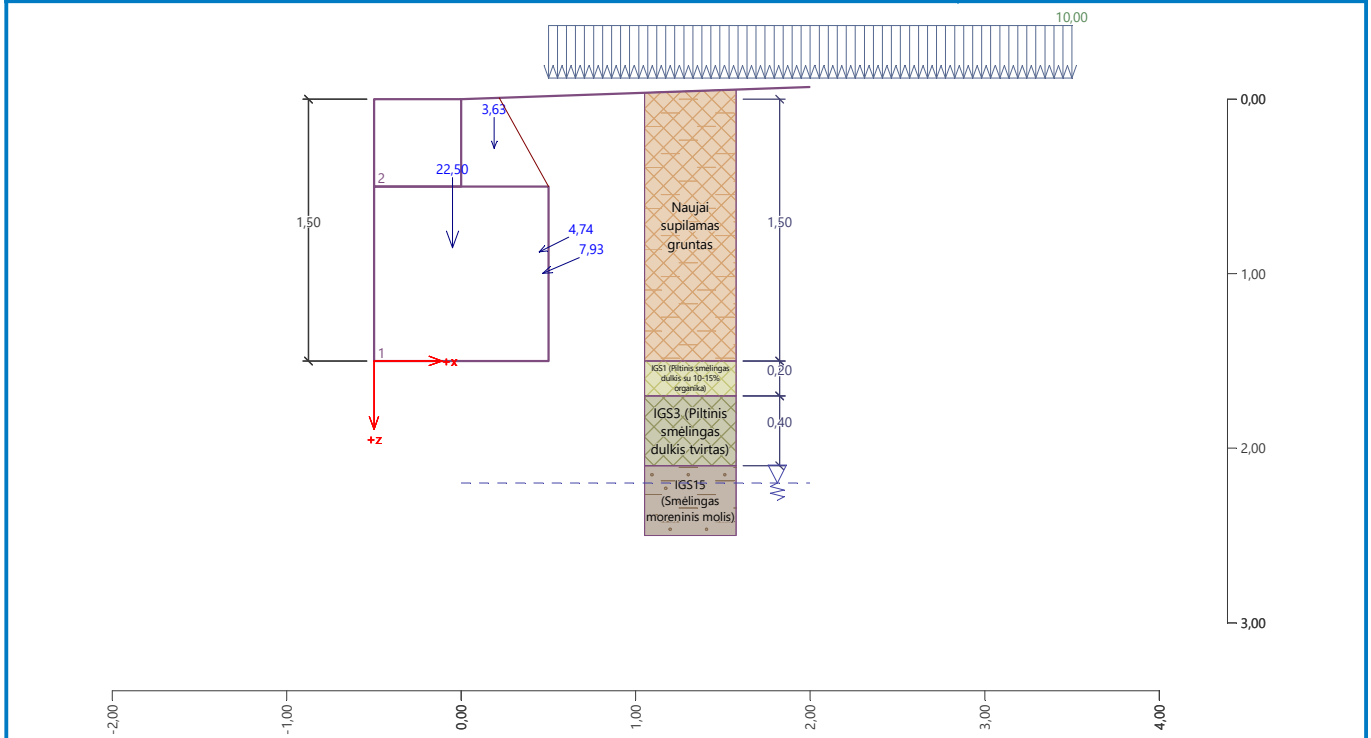
Wall for slip is SATISFACTORY

Overall check - WALL is SATISFACTORY

Maximum stress in footing bottom : 51,89 kPa

Name : Verification

Stage - analysis : 1 - 1



Bearing capacity of foundation soil

Design load acting at the center of footing bottom

No.	Moment [kNm/m]	Norm. force [kN/m]	Shear Force [kN/m]	Eccentricity [-]	Stress [kPa]
1	4,80	39,18	11,56	0,122	51,89
2	4,40	31,31	11,56	0,141	43,56

Service load acting at the center of footing bottom

No.	Moment [kNm/m]	Norm. force [kN/m]	Shear Force [kN/m]
1	3,04	30,87	8,87

Verification of foundation soil

Stress in the footing bottom : rectangle

Eccentricity verification

Max. eccentricity of normal force $e = 0,141$

Maximum allowable eccentricity $e_{alw} = 0,333$

Eccentricity of the normal force is SATISFACTORY

Verification of bearing capacity

Max. stress at footing bottom $\sigma = 51,89$ kPa

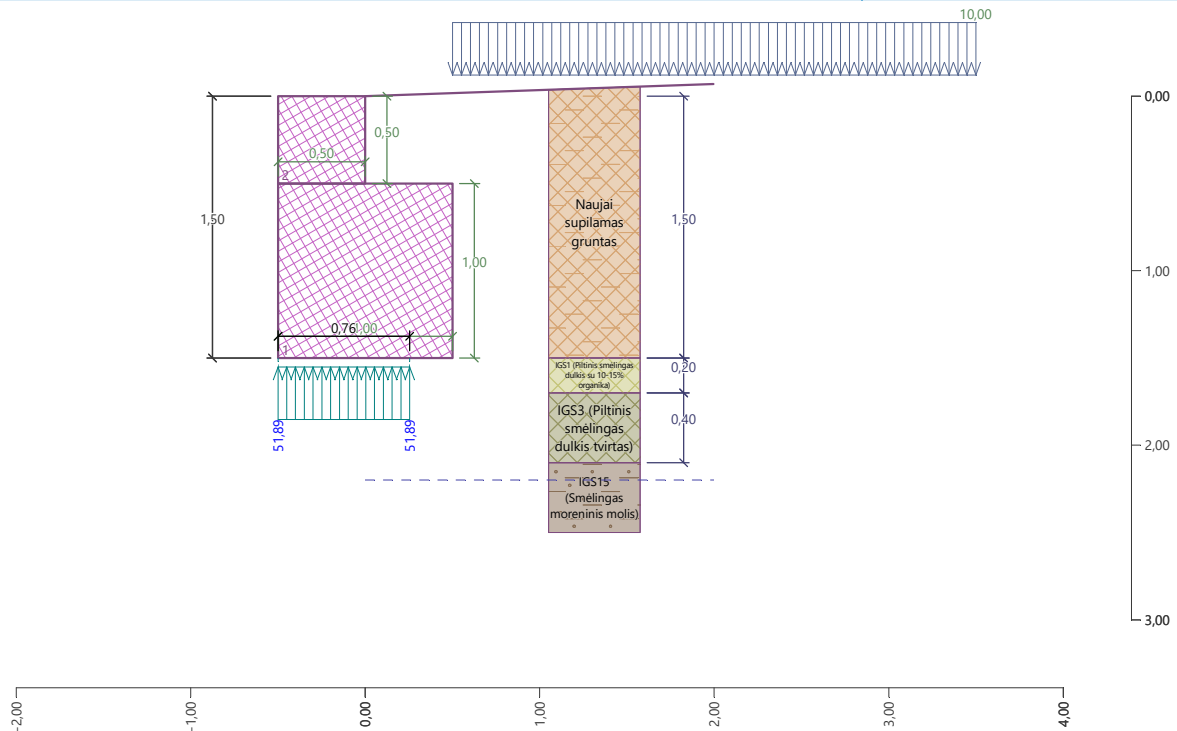
Bearing capacity of foundation soil $R_d = 251,00$ kPa

Bearing capacity of foundation soil is SATISFACTORY

Overall verification - bearing capacity of found. soil is SATISFACTORY

Name : Bearing cap.

Stage - analysis : 1 - -1



Dimensioning No. 1

Forces acting on construction

Name	F_{hor} [kN/m]	App.Pt. z [m]	F_{vert} [kN/m]	App.Pt. x [m]	Coeff. overtur.	Coeff. sliding	Coeff. stress
Weight - wall	0,00	-0,25	4,50	0,25	1,000	1,000	1,350
Active pressure	0,64	-0,16	0,15	0,50	1,000	1,000	1,000
Water pressure	0,00	-0,50	0,00	0,50	1,000	1,000	1,000
Dviračių ir pėsčiųjų apkrova	1,08	-0,15	0,32	0,50	1,000	1,000	1,000

Verification of construction joint above the block No.: 1

Check for overturning stability

Resisting moment $M_{res} = 1,36$ kNm/m

Overturning moment $M_{ovr} = 0,26$ kNm/m

Joint for overturning stability is SATISFACTORY

Check for slip

Resisting horizontal force $H_{res} = 3,98$ kN/m

Active horizontal force $H_{act} = 1,71$ kN/m

Joint for slip is SATISFACTORY

Maximum pressure on the bottom block = 14,34 kPa

Red.Coeff. by offset of top block = 1,00

Average value of pressure on face = 7,07 kPa

Shear force transferred by friction = 5,24 kN/m

Bearing capacity against transverse pressure:

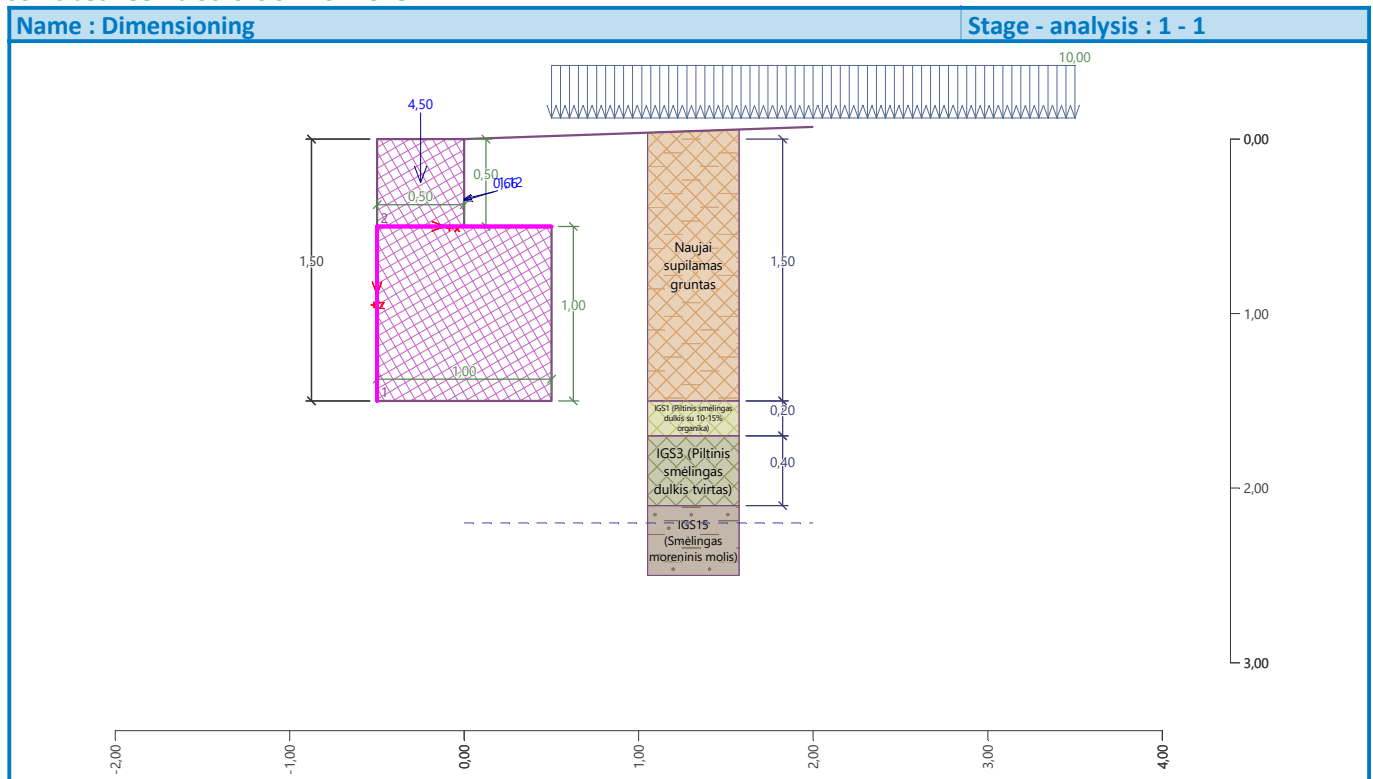
Joint bear.capacity = 20,00 kN/m
Computed stress-state = 3,54 kN/m

Transverse pressure check is SATISFACTORY

Joint btw. blocks check:

Mesh material bear.capacity = 40,00 kN/m
Computed stress-state = 3,54 kN/m

Joint between blocks is SATISFACTORY



Slope stability analysis

Input data (Construction stage 1)

Project

Settings

Standard - EN 1997 - DA3

Stability analysis

Verification methodology : according to EN 1997

Earthquake analysis : Standard

Design approach : 3 - reduction of actions (GEO, STR) and soil parameters

Partial factors on actions (A)					
Permanent design situation					
		State STR		State GEO	
		Unfavourable	Favourable	Unfavourable	Favourable
Permanent actions :	$\gamma_G =$	1,35 [-]	1,00 [-]	1,00 [-]	1,00 [-]
Variable actions :	$\gamma_Q =$	1,50 [-]	0,00 [-]	1,30 [-]	0,00 [-]

Partial factors on actions (A)

Permanent design situation

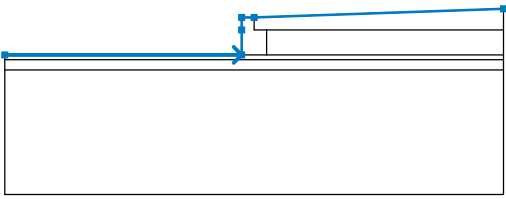
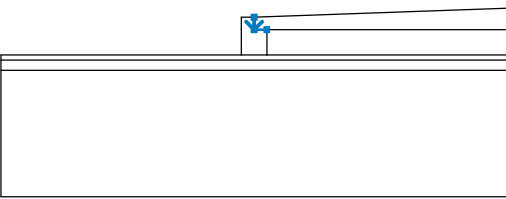
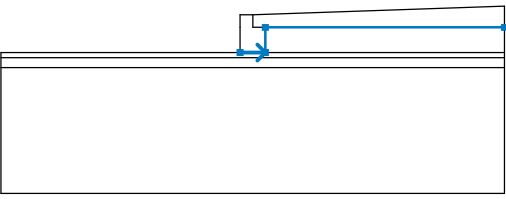
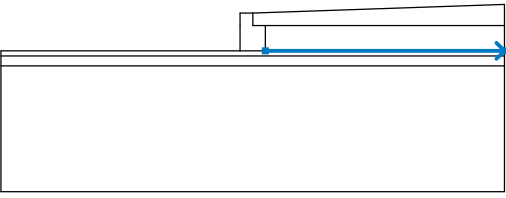
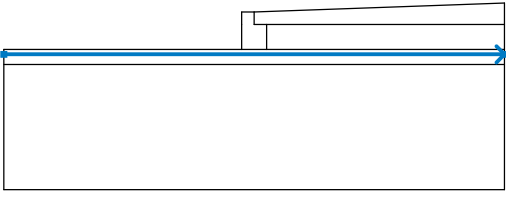
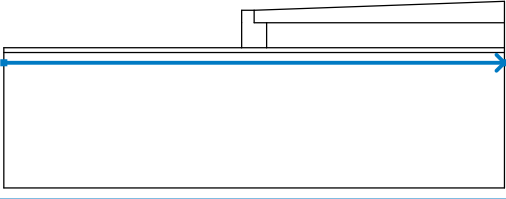
Water load :	$\gamma_w =$					1,00 [-]		
--------------	--------------	--	--	--	--	----------	--	--

Partial factors for soil parameters (M)



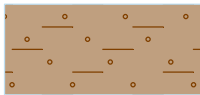

Permanent design situation

Partial factor on internal friction :	$\gamma_\phi =$	1,25 [-]
Partial factor on effective cohesion :	$\gamma_c =$	1,25 [-]
Partial factor on undrained shear strength :	$\gamma_{cu} =$	1,40 [-]



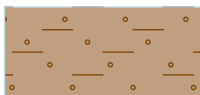

Interface

No.	Interface location	Coordinates of interface points [m]					
		x	z	x	z	x	z
1		-10,00	-1,50	-0,50	-1,50	-0,50	-0,50
		-0,50	0,00	0,00	0,00	10,00	0,35
2		0,00	0,00	0,00	-0,50	0,50	-0,50
3		-0,50	-1,50	0,50	-1,50	0,50	-0,50
		10,00	-0,50				
4		0,50	-1,50	10,00	-1,50		
5		-10,00	-1,70	10,00	-1,70		
6		-10,00	-2,10	10,00	-2,10		

Soil parameters - effective stress state

No.	Name	Pattern	ϕ_{ef} [°]	c_{ef} [kPa]	γ [kN/m ³]
1	IGS1 (Piltinis smėlingas dulkis su 10-15% organika)		20,00	10,00	18,14
2	IGS3 (Piltinis smėlingas dulkis tvirtas)		28,00	10,00	20,05
3	IGS15 (Smėlingas moreninis molis)		23,00	34,00	21,41
4	Naujai supilamas gruntas		30,00	1,00	20,00

Soil parameters - uplift

No.	Name	Pattern	γ_{sat} [kN/m ³]	γ_s [kN/m ³]	n [-]
1	IGS1 (Piltinis smėlingas dulkis su 10-15% organika)		19,14		
2	IGS3 (Piltinis smėlingas dulkis tvirtas)		21,05		
3	IGS15 (Smėlingas moreninis molis)		22,41		
4	Naujai supilamas gruntas		21,00		

Soil parameters

IGS1 (Piltinis smėlingas dulkis su 10-15% organika)

Unit weight : $\gamma = 18,14 \text{ kN/m}^3$
 Stress-state : effective
 Shear strength : Mohr-Coulomb
 Angle of internal friction : $\phi_{ef} = 20,00^\circ$
 Cohesion of soil : $c_{ef} = 10,00 \text{ kPa}$
 Saturated unit weight : $\gamma_{sat} = 19,14 \text{ kN/m}^3$

IGS3 (Piltinis smėlingas dulkis tvirtas)

Unit weight : $\gamma = 20,05 \text{ kN/m}^3$
 Stress-state : effective
 Shear strength : Mohr-Coulomb
 Angle of internal friction : $\phi_{ef} = 28,00^\circ$
 Cohesion of soil : $c_{ef} = 10,00 \text{ kPa}$
 Saturated unit weight : $\gamma_{sat} = 21,05 \text{ kN/m}^3$

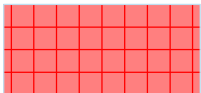
IGS15 (Smėlingas moreninis molis)

Unit weight : $\gamma = 21,41 \text{ kN/m}^3$
 Stress-state : effective
 Shear strength : Mohr-Coulomb
 Angle of internal friction : $\phi_{ef} = 23,00^\circ$
 Cohesion of soil : $c_{ef} = 34,00 \text{ kPa}$
 Saturated unit weight : $\gamma_{sat} = 22,41 \text{ kN/m}^3$

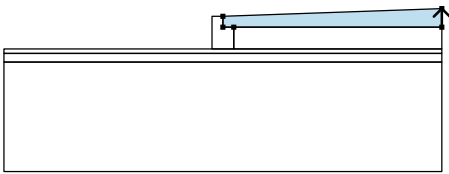

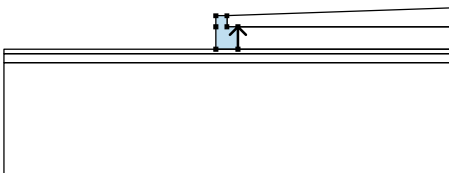

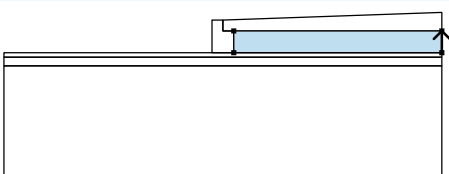

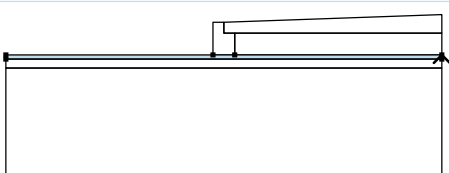

Naujai supilamas gruntas

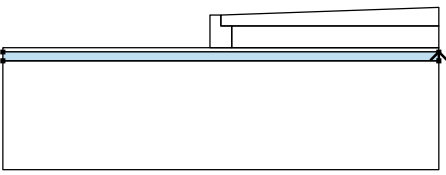
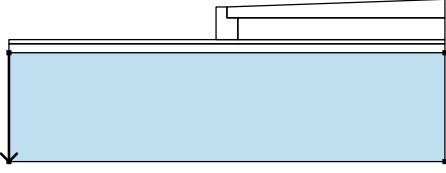
Unit weight : $\gamma = 20,00 \text{ kN/m}^3$
 Stress-state : effective
 Shear strength : Mohr-Coulomb
 Angle of internal friction : $\phi_{ef} = 30,00^\circ$
 Cohesion of soil : $c_{ef} = 1,00 \text{ kPa}$
 Saturated unit weight : $\gamma_{sat} = 21,00 \text{ kN/m}^3$

Rigid Bodies

No.	Name	Sample	γ [kN/m ³]
1	Material of structure		18,00

Assigning and surfaces

No.	Surface position	Coordinates of surface points [m]				Assigned soil
		x	z	x	z	
1		10,00	-0,50	10,00	0,35	Naujai supilamas gruntas 
		0,00	0,00	0,00	-0,50	
		0,50	-0,50			
2		0,50	-1,50	0,50	-0,50	Material of structure 
		0,00	-0,50	0,00	0,00	
		-0,50	0,00	-0,50	-0,50	
		-0,50	-1,50			
3		10,00	-1,50	10,00	-0,50	Naujai supilamas gruntas 
		0,50	-0,50	0,50	-1,50	
4		10,00	-1,70	10,00	-1,50	IGS1 (Pilinis smėlingas dulkis su 10-15% granulų) 
		0,50	-1,50	-0,50	-1,50	
		-10,00	-1,50	-10,00	-1,70	

No.	Surface position	Coordinates of surface points [m]				Assigned soil
		x	z	x	z	
5		10,00	-2,10	10,00	-1,70	IGS3 (Piltinis smėlingas dulkis tvirtas)
		-10,00	-1,70	-10,00	-2,10	
6		-10,00	-2,10	-10,00	-7,10	IGS15 (Smėlingas moreninis molis)
		10,00	-7,10	10,00	-2,10	

Surcharge

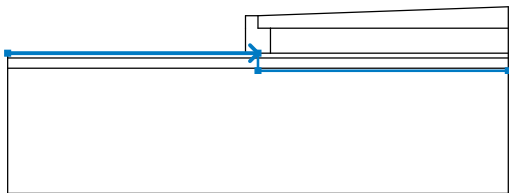
No.	Type	Type of action	Location z [m]	Origin x [m]	Length l [m]	Width b [m]	Slope α [°]	Magnitude	
								q, q_1, f, F, x	q_2, z unit
1	strip	permanent	on terrain	x = 0,50	l = 3,00		0,00	10,00	kN/m ²

Surcharges

No.	Name
1	Dviračių ir pėsčiųjų apkrova

Water

Water type : GWT

No.	GWT location	Coordinates of GWT points [m]					
		x	z	x	z	x	z
1		-10,00	-1,50	0,00	-1,50	0,00	-2,20
		10,00	-2,20				

Settings of the stage of construction

Design situation : permanent

Results (Construction stage 1)

Analysis 1

Circular slip surface

Slip surface parameters							
Center :	x =	-0,29	[m]	Angles :	$\alpha_1 =$	-22,51	[°]
	z =	0,44	[m]		$\alpha_2 =$	79,63	[°]
Radius :	R =	2,10	[m]				
The slip surface after optimization.							

Total weight of soil above the slip surface: 56,95 kN/m

Slope stability verification (Fellenius / Petterson)

Sum of active forces : $F_a = 31,76$ kN/m

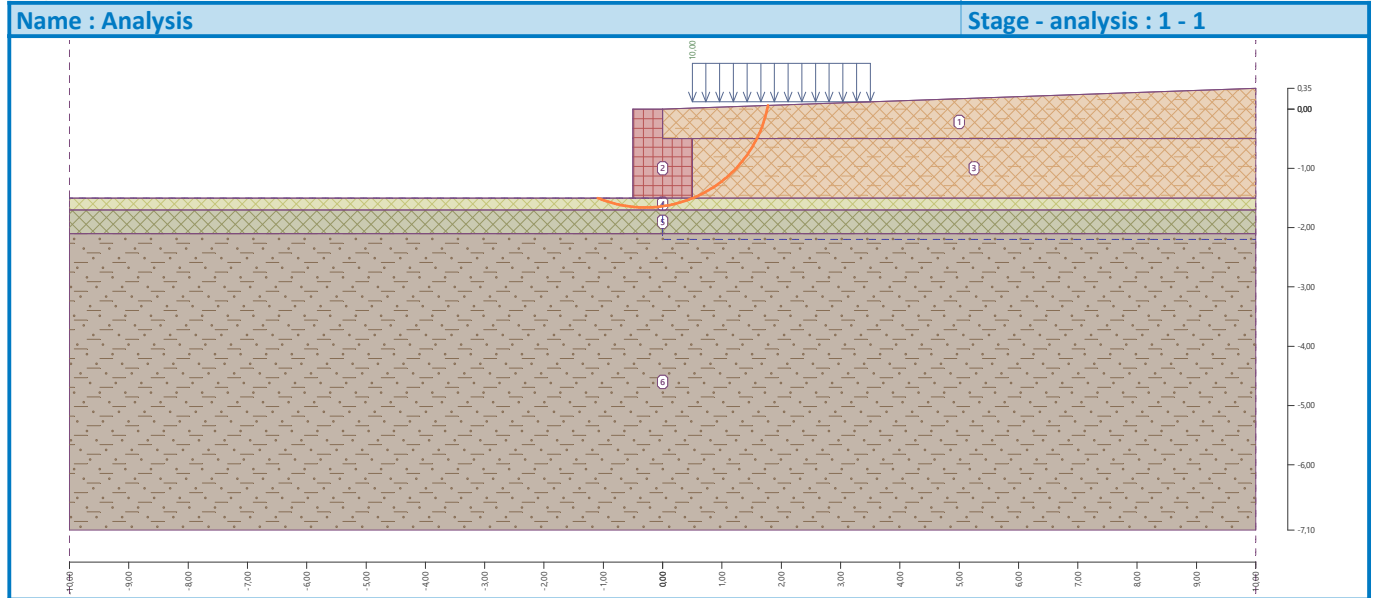
Sum of passive forces : $F_p = 37,77$ kN/m

Sliding moment : $M_a = 66,69$ kNm/m

Resisting moment : $M_p = 79,32$ kNm/m

Utilization : 84,1 %

Slope stability ACCEPTABLE



Analysis 2

Polygonal slip surface

Coordinates of slip surface points [m]									
x	z	x	z	x	z	x	z	x	z
-0,77	-1,50	-0,51	-1,71	0,03	-1,63	0,47	-1,52	0,94	-1,22
1,33	-0,89	1,74	-0,49	2,26	0,08				

The slip surface after optimization.

Total weight of soil above the slip surface: 59,97 kN/m

Slope stability verification (Morgenstern-Price)

Utilization : 86,0 %

Slope stability ACCEPTABLE

Name : Analysis

Stage - analysis : 1 - 2

