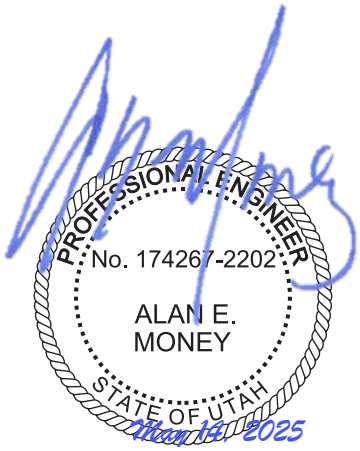
Appendix D

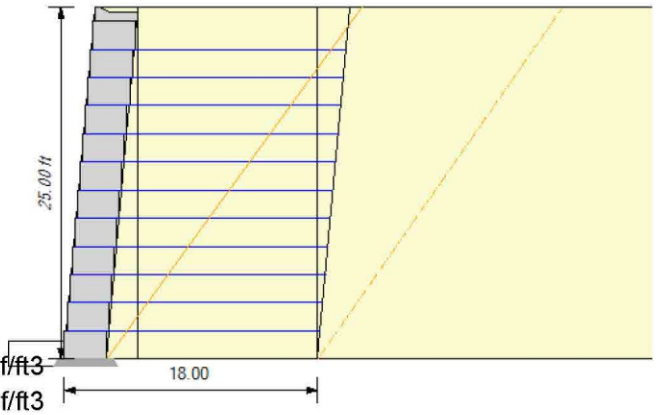
(Calculations - Static & Seismic)



Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 1 - 25 ft no SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	25.00 ft (23.75 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.25 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	30.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	4.28	FoS Overturning:	8.43
Bearing	3,119	FoS Bearing:	13.54
FoS Pullout	1.42 NG		
Total Pullout	147,999	FoS Total Pullout	15.07
Top FoSot:	12.77	FoS Connection:	1.93

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
11	22	18	5XT	1786	243	243	11.02	1.42/[243]	59.63	1.04
10	20	18	5XT	1786	304	304	8.82	4.21/[304]	30.04	2.31
9	18	18	5XT	1786	425	425	6.30	6.52/[425]	19.74	3.58
8	16	18	5XT	1786	547	547	4.90	8.84/[547]	14.63	4.84
7	14	18	5XT	1786	668	668	4.01	11.15/[668]	11.61	6.11
6	12	18	5XT	1786	790	790	3.39	13.47/[790]	9.62	7.38
5	10	18	5XT	1786	911	911	2.94	15.79/[911]	8.21	8.65
4	8	18	5XT	1786	1033	1033	2.59	18.10/[1033]	7.17	9.92
3	6	18	5XT	1786	1154	1154	2.32	20.42/[1154]	6.37	11.19
2	4	18	5XT	1786	1276	1276	2.10	22.73/[1276]	5.73	12.46
1	2	18	5XT	1786	1398	1398	1.92	25.05/[1398]	5.21 [4.28]	13.73

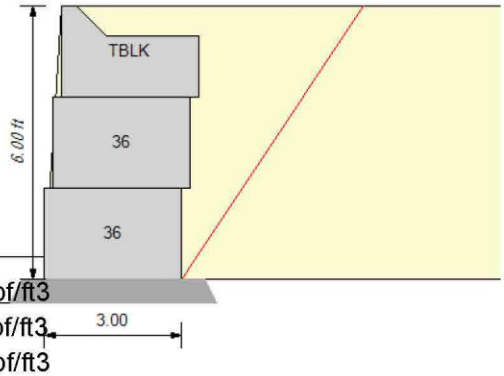
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 2 - 6 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Infill Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
LvlPad / Drain Mat:	40 deg	0 lbf/ft2	135 lbf/ft3
Crushed Stone Lvlng Pad			

GEOMETRY

Design Height:	6.00 ft	Live Load:	0.00 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	0.50 ft*	Live Load Width:	0.00 ft
Leveling Pad Depth:	0.50 ft		
Slope Angle:	0.0 deg	Dead Load:	0.0 lbf/ft2
Slope Length:	20.0 ft	Dead Load Offset:	0.0 ft
Slope Toe Offset:	0.0 ft	Dead Load Width:	0.00 ft
Leveling Pad Width:	4.00 ft	D.L. Embedment:	0.00 ft

Vert δ on Single Dpth

* Note: For all designs the passive resistance in front of the wall units is ignored for sliding calculations.

FACTORS OF SAFETY

Sliding:	1.50	Overturning:	1.50
Bearing:	2.00		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.75 (lvlpd)	FoS Overturning:	3.59
Bearing:	795.36	FoS Bearing:	12.52

Name	Elev.[dpth]	ka	Pa	PaT	FSsl	FoS OT	%D/H
TBLK	4.00[2.00]	0.254	64	64	20.54	19.62	150%
36	2.00[4.00]	0.219	219	219	8.36	7.18	75%
36	0.00[6.00]	0.219	493	493	2.75	3.59	50%

Design Approach:

The design is a 'top down' approach. The values shown in the table[ka, kae, Pa, etc.] are the values from the top of wall to the base of that row. For trial wedge analysis, the ka and kae are back-calculated from the Pa, Pae values.

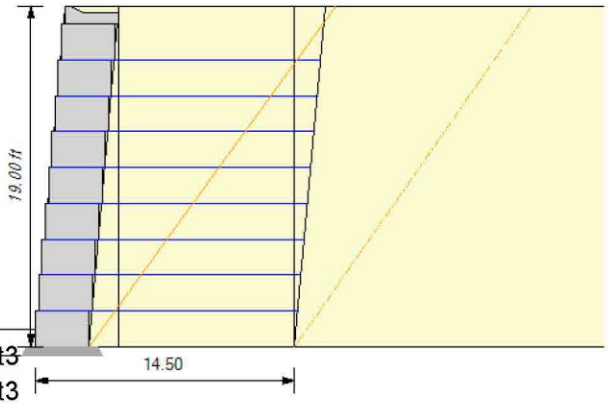
Column Descriptions:

ka: active earth pressure coefficient
Pa: active earth pressure
Paq: live surcharge earth pressure
Paq2: live load 2 surcharge earth pressure
Paqd: dead surcharge earth pressure
(PaC): reduction in load due to cohesion
PaT: sum of all earth pressures
FSsl(lvl Pad): factor of safety for sliding at each layer. (FS sliding below the leveling pad)
FSot: factor of safety of overturning about the toe.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 3 - 19 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	19.00 ft (18.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	40.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	4.58	FoS Overturning:	9.39
Bearing	2,370	FoS Bearing:	14.37
FoS Pullout	1.84		
Total Pullout	63,145	FoS Total Pullout	11.13
Top FoSot:	12.77	FoS Connection:	2.48

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
8	16	14.5	5XT	1786	243	243	11.02	1.84/[243]	54.69	1.34
7	14	14.5	5XT	1786	304	304	8.82	4.77/[304]	27.08	2.61
6	12	14.5	5XT	1786	425	425	6.30	7.08/[425]	17.62	3.88
5	10	14.5	5XT	1786	547	547	4.90	9.40/[547]	12.98	5.15
4	8	14.5	5XT	1786	668	668	4.01	11.72/[668]	10.26	6.42
3	6	14.5	5XT	1786	790	790	3.39	14.03/[790]	8.48	7.69
2	4	14.5	5XT	1786	911	911	2.94	16.35/[911]	7.23	8.96
1	2	14.5	5XT	1786	1033	1033	2.59	18.66/[1033]	6.30 [4.58]	10.23

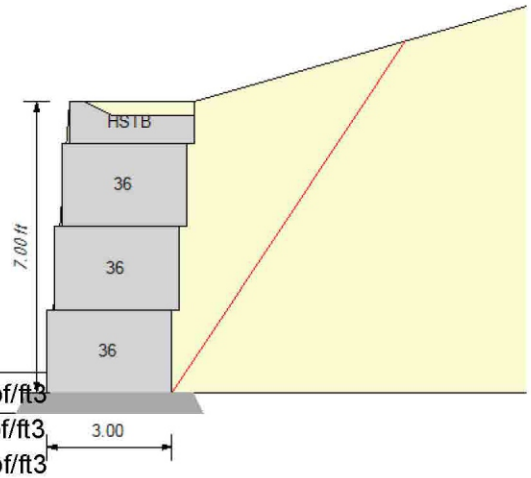
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 4 - 7 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Infill Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
LvlPad / Drain Mat:	40 deg	0 lbf/ft2	135 lbf/ft3
Crushed Stone Lvlng Pad			

GEOMETRY

Design Height:	7.00 ft	Live Load:	0.00 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	0.50 ft*	Live Load Width:	0.00 ft
Leveling Pad Depth:	0.50 ft		
Slope Angle:	16.0 deg	Dead Load:	0.0 lbf/ft2
Slope Length:	50.0 ft	Dead Load Offset:	0.0 ft
Slope Toe Offset:	0.0 ft	Dead Load Width:	0.00 ft
Leveling Pad Width:	4.00 ft	D.L. Embedment:	0.00 ft

Vert δ on Single Dpth

* Note: For all designs the passive resistance in front of the wall units is ignored for sliding calculations.

FACTORS OF SAFETY

Sliding:	1.50	Overturning:	1.50
Bearing:	2.00		

RESULTS

FoS Sliding:	2.12 (lvlpd)	FoS Overturning:	2.50
Bearing:	1119.50	FoS Bearing:	8.32

Name	Elev.[dpth]	ka	Pa	PaT	FSsl	FoS OT	%D/H
HSTB	6.00[1.00]	0.314	20	20	59.57	89.10	300%
36	4.00[3.00]	0.268	151	151	11.30	12.14	100%
36	2.00[5.00]	0.268	419	419	5.43	4.64	60%
36	0.00[7.00]	0.268	821	821	2.12	2.50	43%

Design Approach:

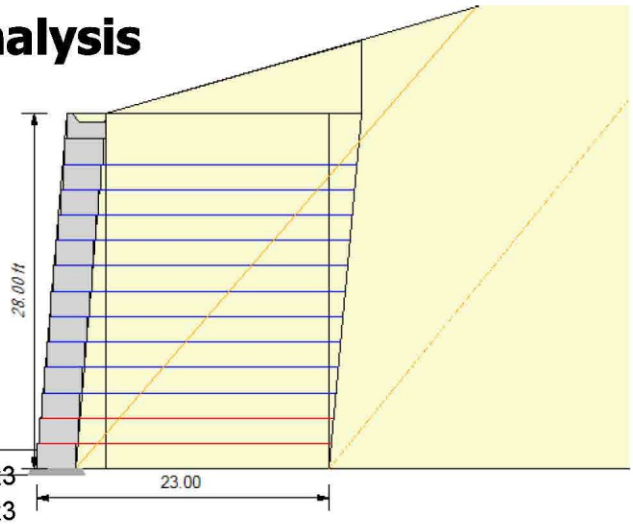
The design is a 'top down' approach. The values shown in the table[ka, kae, Pa, etc.] are the values from the top of wall to the base of that row. For trial wedge analysis, the ka and kae are back-calculated from the Pa, Pae values.

Column Descriptions:

ka: active earth pressure coefficient
Pa: active earth pressure
Paq: live surcharge earth pressure
Paq2: live load 2 surcharge earth pressure
Paqd: dead surcharge earth pressure
(PaC): reduction in load due to cohesion
PaT: sum of all earth pressures
FSsl(lvl Pad): factor of safety for sliding at each layer. (FS sliding below the leveling pad)
FSot: factor of safety of overturning about the toe.

Verti-Block® Retaining Walls

REA Analysis



Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 5a - 28 ft no SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36

SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	28.00 ft (26.50 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.50 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	16.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	50.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.45	FoS Overturning:	4.78
Bearing	4,094	FoS Bearing:	12.23
FoS Pullout	2.98		
Total Pullout	294,131	FoS Total Pullout	18.97
Top FoSot:	4.91	FoS Connection:	1.58

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
12	24	23	5XT	1786	478	478	5.60	2.98/[478]	7.53	1.32
11	22	23	5XT	1786	459	459	5.84	7.95/[459]	6.44	2.88
10	20	23	5XT	1786	612	612	4.38	10.56/[612]	5.63	4.43
9	18	23	5XT	1786	765	765	3.50	12.91/[765]	4.99	5.99
8	16	23	5XT	1786	918	918	2.92	15.11/[918]	4.49	7.55
7	14	23	5XT	1786	1071	1071	2.50	17.24/[1071]	4.08	9.10
6	12	23	5XT	1786	1224	1224	2.19	19.32/[1224]	3.74	10.66
5	10	23	5XT	1786	1377	1377	1.95	21.36/[1377]	3.45	12.22
4	8	23	5XT	1786	1530	1530	1.75	23.39/[1530]	3.21	13.77
3	6	23	5XT	1786	1683	1683	1.59	25.39/[1683]	2.99	15.33
2	4	23	8XT	2812	1835	1835	2.30	27.39/[1835]	2.81	16.89
1	2	23	8XT	2812	1988	1988	2.12	29.47/[1988]	2.45 [2.47]	18.44

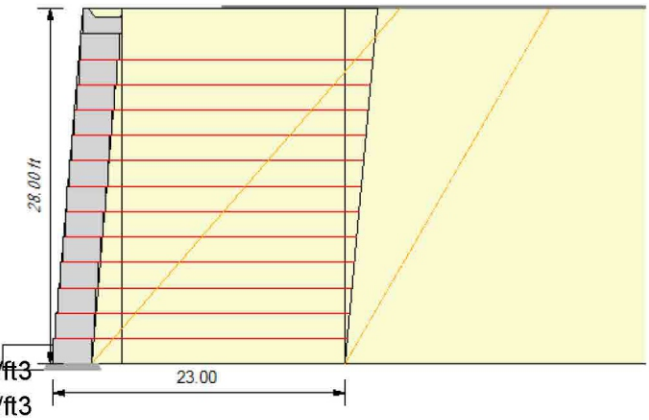
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 5b - 28 ft w/wall 1 SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	28.00 ft (26.50 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.50 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	3,375 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	8.0 ft
Back Slope Length:	7.0 ft	Dead Load Width:	53.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	1.94	FoS Overturning:	3.92
Bearing	6,703	FoS Bearing:	6.52
FoS Pullout	1.78		
Total Pullout	535,968	FoS Total Pullout	44.85
Top FoSot:	6.18	FoS Connection:	1.55

ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
12	24	23	8XT	2812	368	2277	2646	1.59	1.78/[2646]	8.42	1.32
11	22	23	8XT	2812	354	902	1256	3.36	8.67/[1256]	6.15	2.88
10	20	23	8XT	2812	472	1257	1729	2.44	10.27/[1729]	4.99	4.43
9	18	23	8XT	2812	590	1202	1792	2.35	14.13/[1792]	4.28	5.99
8	16	23	8XT	2812	707	1160	1867	2.26	17.98/[1867]	3.79	7.55
7	14	23	8XT	2812	825	1114	1940	2.17	21.92/[1940]	3.43	9.10
6	12	23	8XT	2812	943	1087	2030	2.08	25.69/[2030]	3.16	10.66
5	10	23	8XT	2812	1061	1058	2119	1.99	27.02/[2119]	2.94	12.22
4	8	23	8XT	2812	1179	1028	2208	1.91	28.47/[2208]	2.76	13.77
3	6	23	8XT	2812	1297	1021	2318	1.82	29.82/[2318]	2.60	15.33
2	4	23	8XT	2812	1415	991	2405	1.75	31.63/[2405]	2.47	16.89
1	2	23	8XT	2812	1533	959	2492	1.69	33.61/[2492]	2.22 [1.94]	18.44

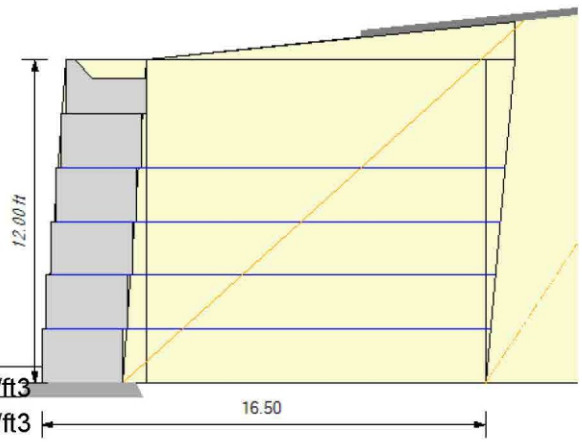
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 6 - 12 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	12.00 ft (11.40 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	0.60 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	3,780 lbf/ft2
Back Slope Angle:	6.0 deg	Dead Load Offset:	8.0 ft
Back Slope Length:	20.0 ft	Dead Load Width:	40.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

RESULTS

FoS Sliding:	1.91	FoS Overturning:	5.97
Bearing	3,369	FoS Bearing:	9.49
FoS Pullout	18.90		
Total Pullout	102,262	FoS Total Pullout	49.73
Top FoSot:	5.75	FoS Connection:	3.19

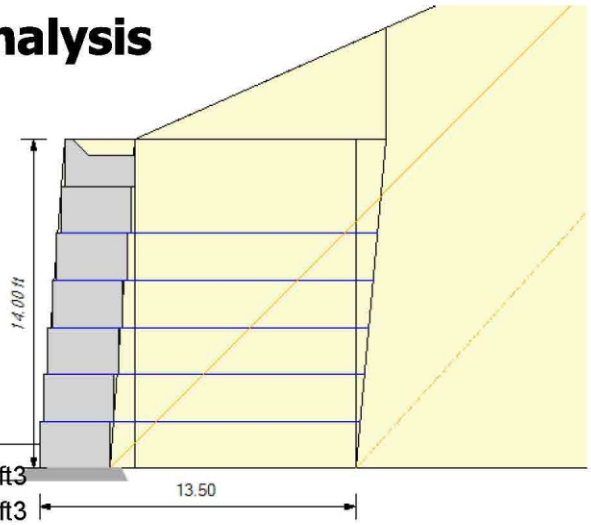
ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
4	8	16.5	5XT	1786	345	372	718	3.73	30.14/[718]	3.78	5.34
3	6	16.5	5XT	1786	331	922	1253	2.14	18.90/[1253]	2.84	7.38
2	4	16.5	5XT	1786	442	815	1256	2.13	21.17/[1256]	2.34	9.42
1	2	16.5	5XT	1786	552	735	1288	2.08	23.57/[1288]	2.03 [1.91]	11.46

Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis



Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 7 - 14 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36

SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	14.00 ft (13.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	24.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	30.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.06	FoS Overturning:	4.10
Bearing	2,232	FoS Bearing:	12.80
FoS Pullout	2.24		
Total Pullout	35,024	FoS Total Pullout	7.32
Top FoSot:	3.98	FoS Connection:	2.14

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
5	10	13.5	5XT	1786	590	590	4.54	2.24/[590]	4.99	1.41
4	8	13.5	5XT	1786	566	566	4.73	6.29/[566]	4.14	3.23
3	6	13.5	5XT	1786	755	755	3.55	8.48/[755]	3.54	5.05
2	4	13.5	5XT	1786	944	944	2.84	10.43/[944]	3.09	6.86
1	2	13.5	5XT	1786	1133	1133	2.36	12.26/[1133]	2.75 [2.06]	8.68

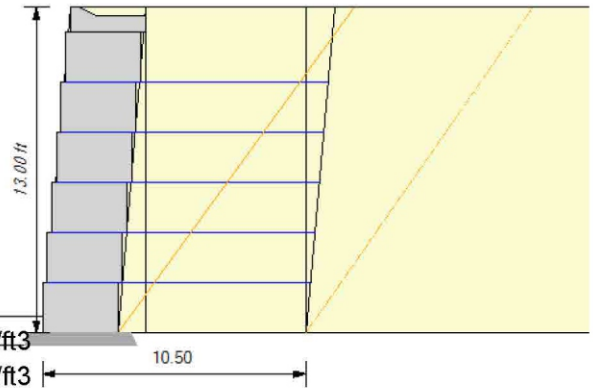
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 8 - 13 ft
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	13.00 ft (12.35 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	0.65 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	20.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	4.93	FoS Overturning:	10.40
Bearing	1,636	FoS Bearing:	14.86
FoS Pullout	1.58		
Total Pullout	17,138	FoS Total Pullout	6.45
Top FoSot:	12.77	FoS Connection:	3.61

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
5	10	10.5	5XT	1786	243	243	11.02	1.58/[243]	48.98	1.15
4	8	10.5	5XT	1786	304	304	8.82	4.42/[304]	23.66	2.42
3	6	10.5	5XT	1786	425	425	6.30	6.73/[425]	15.18	3.69
2	4	10.5	5XT	1786	547	547	4.90	9.05/[547]	11.08	4.96
1	2	10.5	5XT	1786	668	668	4.01	11.37/[668]	8.70 [4.93]	6.23

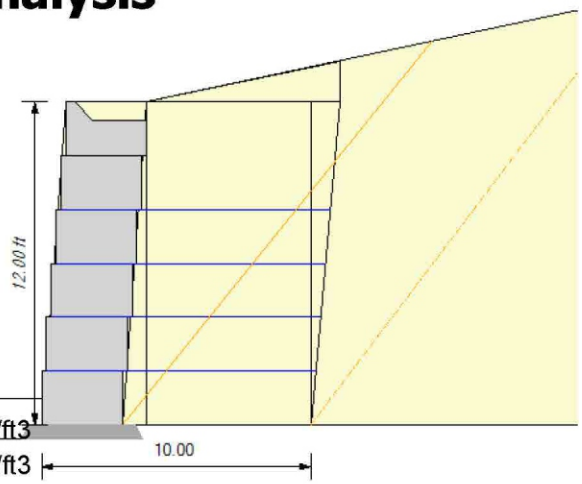
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 9a - 12 ft no SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	12.00 ft (11.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	12.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	30.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	3.05	FoS Overturning:	6.06
Bearing	1,640	FoS Bearing:	14.32
FoS Pullout	1.67		
Total Pullout	13,626	FoS Total Pullout	5.14
Top FoSot:	5.27	FoS Connection:	3.33

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
4	8	10	5XT	1786	445	445	6.02	1.67/[445]	12.62	1.25
3	6	10	5XT	1786	427	427	6.27	5.00/[427]	8.63	2.69
2	4	10	5XT	1786	570	570	4.70	7.20/[570]	6.55	4.12
1	2	10	5XT	1786	712	712	3.76	9.33/[712]	5.27 [3.05]	5.56

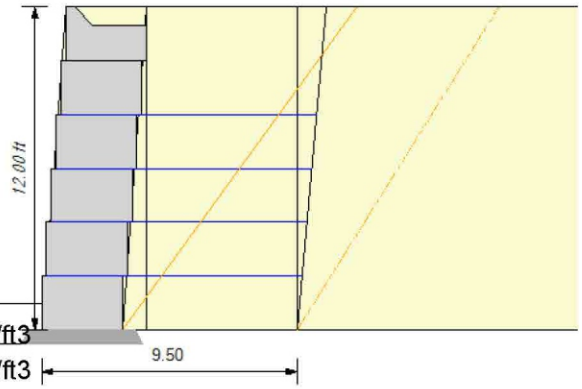
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 9b - 12 ft with Walls 12 and 10 SCs
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	12.00 ft (11.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	1,910 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	20.0 ft
Back Slope Length:	10.0 ft	Dead Load Width:	45.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	4.13	FoS Overturning:	8.61
Bearing	1,506	FoS Bearing:	15.45
FoS Pullout	1.65		
Total Pullout	11,721	FoS Total Pullout	5.18
Top FoSot:	6.18	FoS Connection:	3.90

ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
4	8	9.5	5XT	1786	380	0	380	7.05	1.65/[380]	25.62	1.42
3	6	9.5	5XT	1786	365	0	365	7.35	4.90/[365]	14.81	2.69
2	4	9.5	5XT	1786	486	0	486	5.51	7.22/[486]	10.28	3.96
1	2	9.5	5XT	1786	608	0	608	4.41	9.54/[608]	7.84 [4.13]	5.23

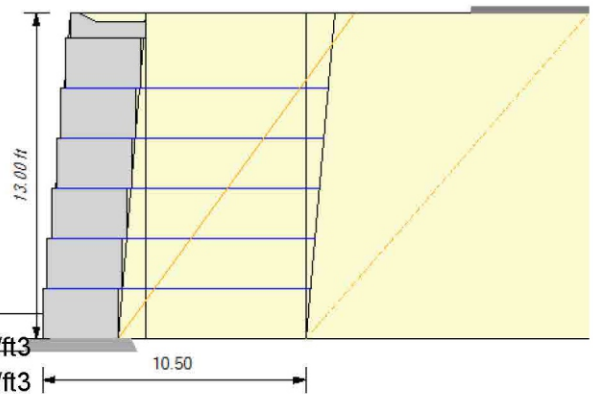
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 10 - 13 ft with Condo SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	13.00 ft (12.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	1,890 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	13.0 ft
Back Slope Length:	12.0 ft	Dead Load Width:	14.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.25	FoS Overturning:	3.77
Bearing	2,005	FoS Bearing:	10.74
FoS Pullout	1.57		
Total Pullout	17,122	FoS Total Pullout	6.45
Top FoSot:	12.77	FoS Connection:	3.61

ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
5	10	10.5	5XT	1786	243	0	243	11.02	1.57/[243]	42.32	1.14
4	8	10.5	5XT	1786	304	0	304	8.82	4.41/[304]	8.75	2.42
3	6	10.5	5XT	1786	425	0	425	6.30	6.73/[425]	5.15	3.69
2	4	10.5	5XT	1786	547	0	547	4.90	9.04/[547]	4.34	4.96
1	2	10.5	5XT	1786	668	0	668	4.01	11.36/[668]	3.72 [2.25]	6.23

Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 11 - 29 ft no SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36

SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	29.00 ft (27.55 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.45 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	0 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	0.0 ft
Back Slope Length:	45.0 ft	Dead Load Width:	0.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	4.29	FoS Overturning:	8.55
Bearing	3,596	FoS Bearing:	13.75
FoS Pullout	2.05		
Total Pullout	248,230	FoS Total Pullout	18.79
Top FoSot:	12.77	FoS Connection:	1.71

ID	Height	Length	Name	Ta	Pa	TMax	FSStr	FSPo	FSSldg	GridEmbedment
13	26	21	5XT	1786	243	243	11.02	2.05/[243]	63.94	1.50
12	24	21	5XT	1786	304	304	8.82	5.05/[304]	32.63	2.77
11	22	21	5XT	1786	425	425	6.30	7.36/[425]	21.59	4.04
10	20	21	5XT	1786	547	547	4.90	9.68/[547]	16.07	5.31
9	18	21	5XT	1786	668	668	4.01	12.00/[668]	12.78	6.58
8	16	21	5XT	1786	790	790	3.39	14.31/[790]	10.61	7.84
7	14	21	5XT	1786	911	911	2.94	16.63/[911]	9.08	9.11
6	12	21	5XT	1786	1033	1033	2.59	18.94/[1033]	7.93	10.38
5	10	21	5XT	1786	1154	1154	2.32	21.26/[1154]	7.05	11.65
4	8	21	5XT	1786	1276	1276	2.10	23.57/[1276]	6.35	12.92
3	6	21	5XT	1786	1398	1398	1.92	25.89/[1398]	5.77	14.19
2	4	21	5XT	1786	1519	1519	1.76	28.21/[1519]	5.30	15.46
1	2	21	5XT	1786	1641	1641	1.63	30.52/[1641]	4.40 [4.29]	16.73

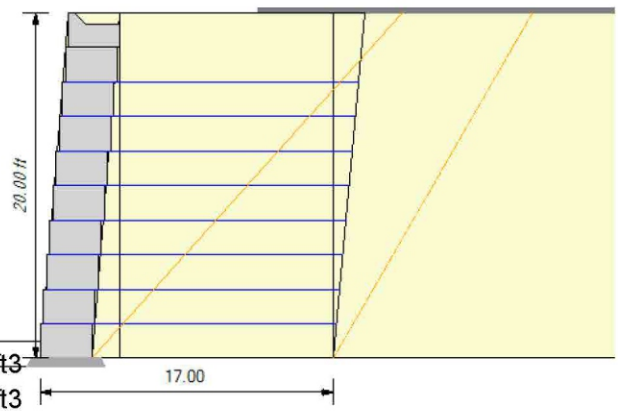
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 12a - 20 ft with Wall 10 SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	20.00 ft (19.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	1,755 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	8.0 ft
Back Slope Length:	8.0 ft	Dead Load Width:	25.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.07	FoS Overturning:	4.21
Bearing	3,826	FoS Bearing:	8.59
FoS Pullout	2.37		
Total Pullout	133,344	FoS Total Pullout	22.18
Top FoSot:	6.18	FoS Connection:	1.96

ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
8	16	17	5XT	1786	363	550	914	2.93	2.37/[914]	7.00	1.05
7	14	17	5XT	1786	349	217	565	4.74	10.79/[565]	5.41	2.67
6	12	17	5XT	1786	465	542	1007	2.66	10.67/[1007]	4.56	4.29
5	10	17	5XT	1786	581	514	1096	2.45	13.78/[1096]	4.01	5.91
4	8	17	5XT	1786	698	485	1182	2.27	15.45/[1182]	3.62	7.52
3	6	17	5XT	1786	814	453	1267	2.12	17.49/[1267]	3.32	9.14
2	4	17	5XT	1786	930	434	1364	1.96	19.61/[1364]	3.08	10.76
1	2	17	5XT	1786	1046	415	1461	1.83	21.95/[1461]	2.25 [2.07]	12.38

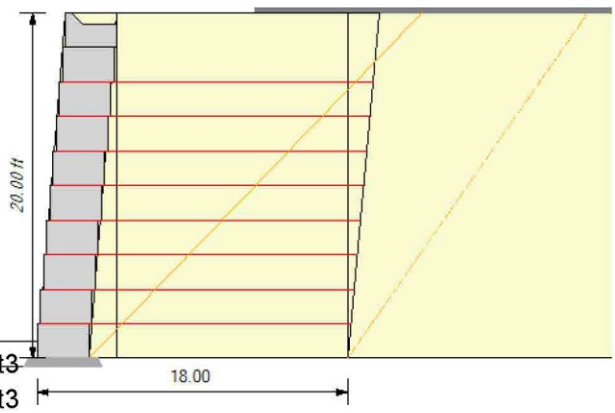
Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
Tmax maximum earth pressure on geosynthetic layer
FSstr factor of safety on geogrid strength (LTDS/Tmax)
Ta cn allowable tension on the connection
FS Pkcn, factor of safety on the connection (PkCn/Tmax)
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Verti-Block® Retaining Walls

REA Analysis

Project:	Sundown Condos Phase 2
Location:	6550 North Powder Mountain Road
Designer:	JAM
Date:	4/21/2025
Section:	Wall 12b - 20 ft with Wall 11 SC
Design Method:	NCMA_09_3rd_Ed, Ignore Vert. Force
Design Unit:	VertiBlock 4.0: 36



SOIL PARAMETERS	Φ	coh	γ
Reinforced Soil:	30 deg	0 lbf/ft2	120 lbf/ft3
Retained Soil:	34 deg	0 lbf/ft2	125 lbf/ft3
Foundation Soil:	34 deg	0 lbf/ft2	110 lbf/ft3
Leveling Pad:	40 deg	0 lbf/ft2	135 lbf/ft3
Leveling Pad:	Crushed Stone		

GEOMETRY

Design Height:	20.00 ft (19.00 ft Exp.)	Live Load:	0 lbf/ft2
Wall Batter/Tilt:	5.20/ 0.00 deg	Live Load Offset:	0.00 ft
Embedment:	1.00 ft	LL2 Width:	0 ft
Leveling Pad Depth:	0.50 ft	Dead Load:	3,915 lbf/ft2
Back Slope Angle:	0.0 deg	Dead Load Offset:	8.0 ft
Back Slope Length:	8.0 ft	Dead Load Width:	49.00 ft
Back Slope Toe Offset:	0.0 ft		

Vertical δ on Single Depth

FACTORS OF SAFETY

Sliding:	1.50	Pullout:	1.50
Overturning:	2.00	Tension/Uncertainties:	1.50
Bearing:	2.00	Connection:	1.50
Unit/Unit Shear:	1.50		

Verti-Block® Retaining Walls

RESULTS

FoS Sliding:	2.06	FoS Overturning:	4.77
Bearing	4,935	FoS Bearing:	7.07
FoS Pullout	2.66		
Total Pullout	222,468	FoS Total Pullout	38.44
Top FoSot:	6.18	FoS Connection:	1.94

ID	Height	Length	Name	Ta	Pa	DL	TMax	FSStr	FSPo	FSSldg	GridEmbedment
8	16	18	8XT	2812	350	1182	1532	2.75	2.66/[1532]	5.35	1.01
7	14	18	8XT	2812	336	465	801	5.27	14.73/[801]	3.99	2.75
6	12	18	8XT	2812	448	1213	1660	2.54	12.22/[1660]	3.30	4.50
5	10	18	8XT	2812	560	1131	1690	2.50	17.48/[1690]	2.87	6.25
4	8	18	8XT	2812	671	1068	1740	2.42	18.78/[1740]	2.58	8.00
3	6	18	8XT	2812	783	1031	1815	2.32	20.11/[1815]	2.36	9.75
2	4	18	8XT	2812	895	963	1859	2.27	22.12/[1859]	2.19	11.50
1	2	18	8XT	2812	1007	923	1930	2.18	24.08/[1930]	2.06 [2.10]	13.25

Column Descriptions:

Ta: allowable geogrid strength
Rc %: percent coverage for geosynthetics
EP (Pa) internal active earth pressure
LL (Pql) earth pressure due to live load surcharge
DL (Pqd) earth pressure due to dead load surcharge
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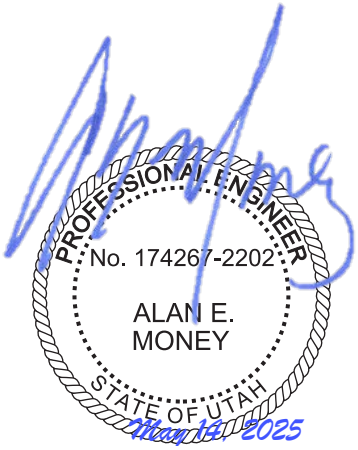
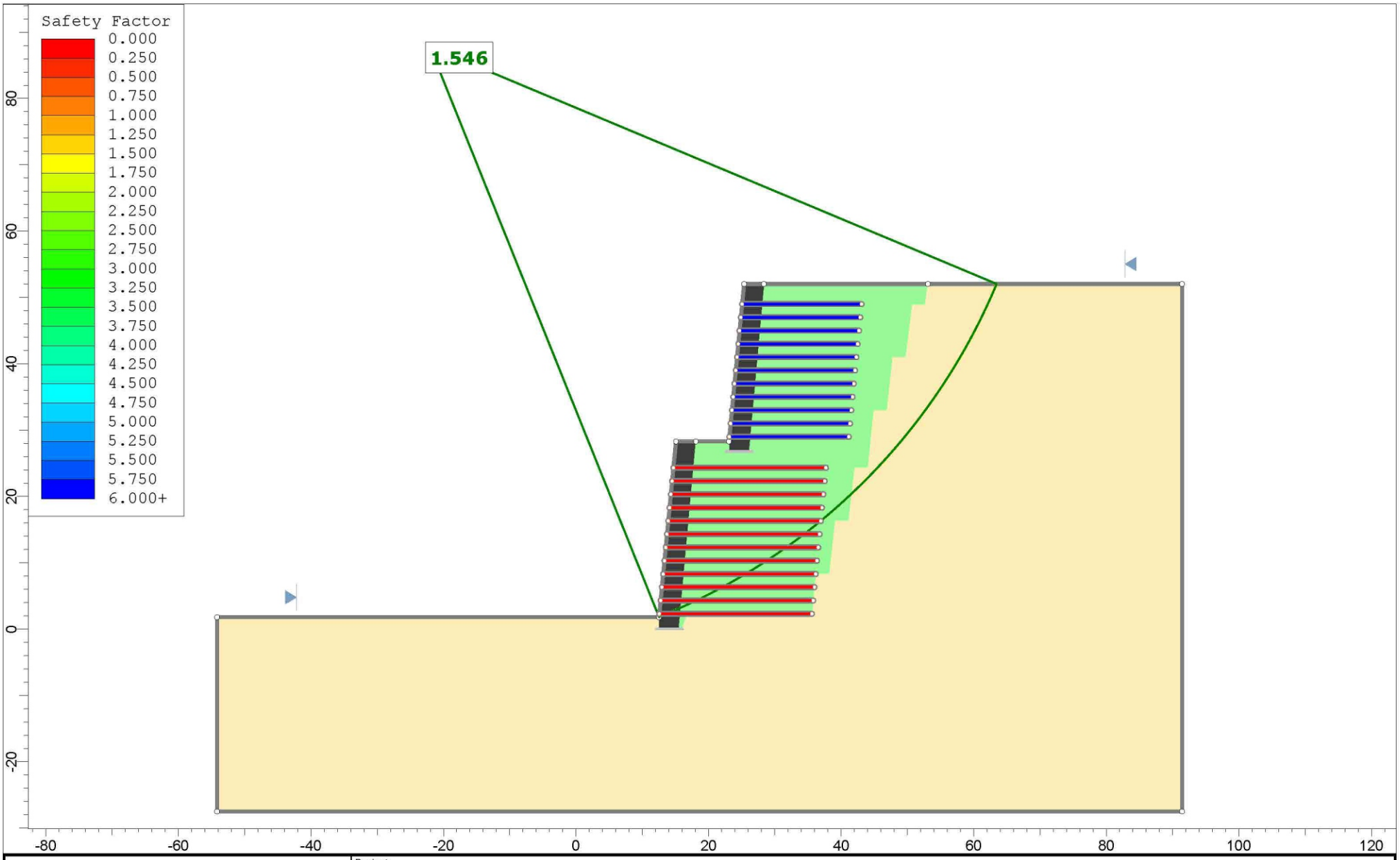
FS PO, factor of safety on pullout (Pullout/(Tmax - LL)
Grid Embedment, depth of embedment beyond the theoretical failure plane.

Appendix E

(Global Stability - Static & Seismic)





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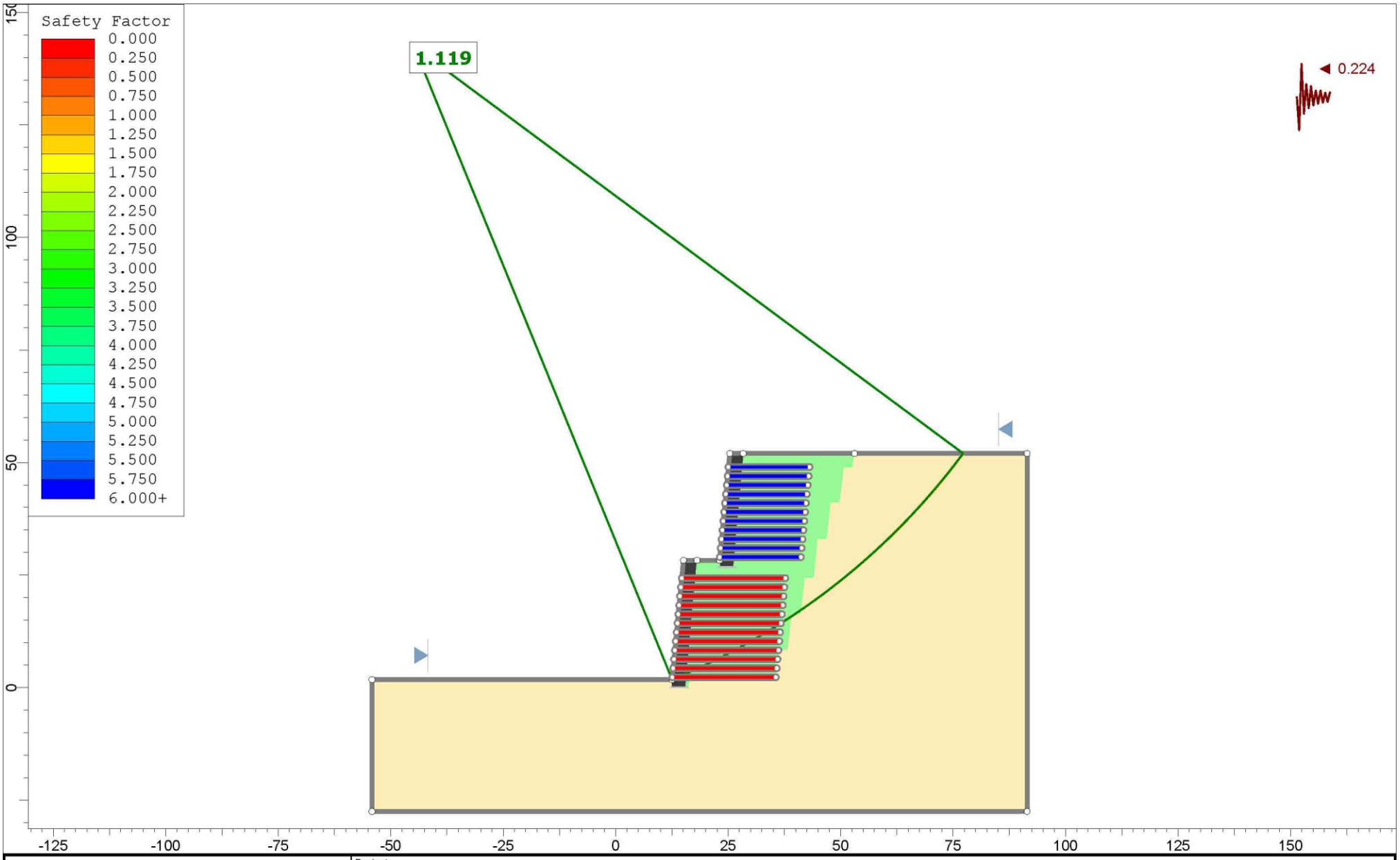
SLIDEINTERPRET 9.038

Project	Sundown Condos Phase 2		
Group	Walls 1 and 5b Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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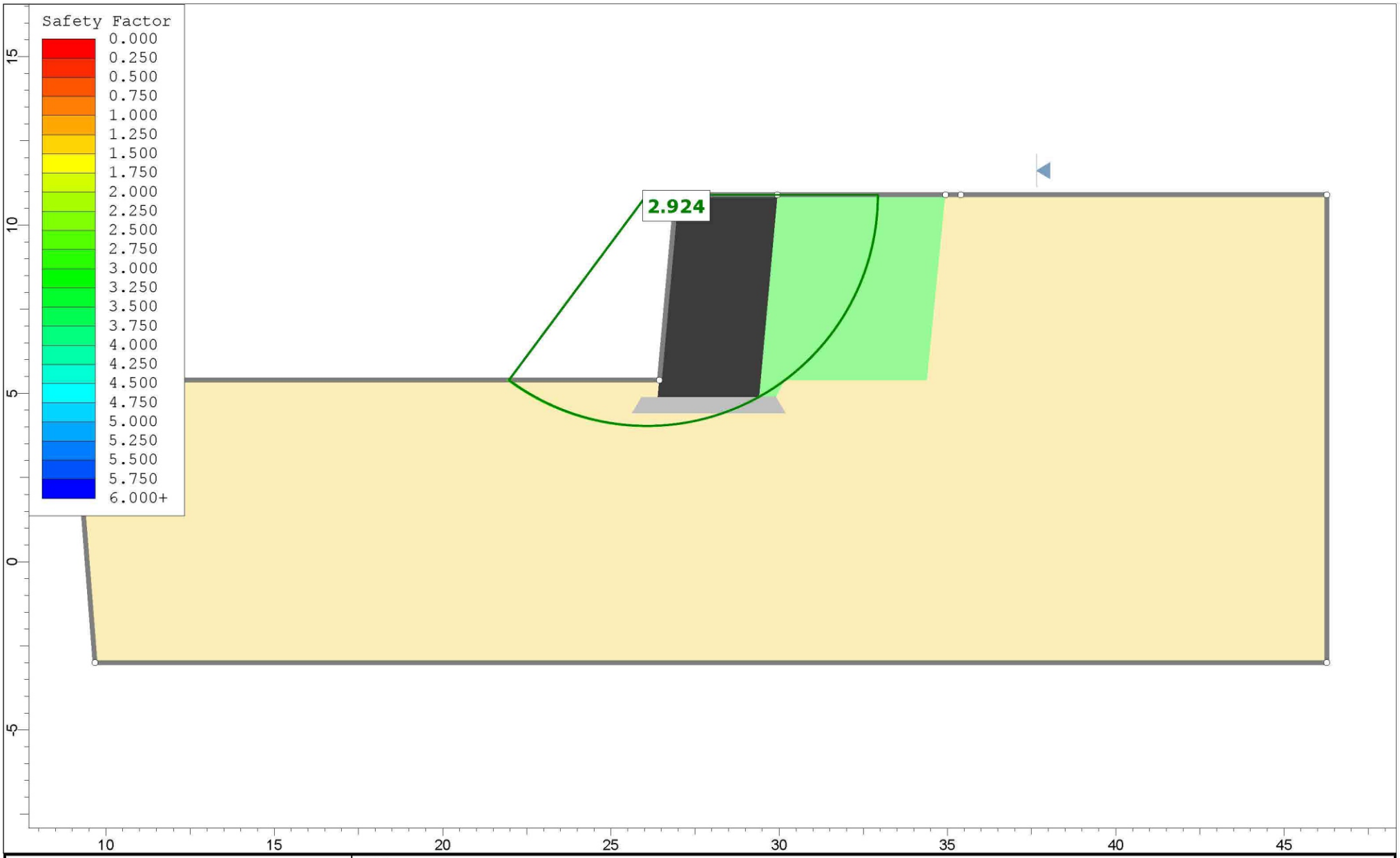
Project	Sundown Condos Phase 2		
Group	Walls 1 and 5b Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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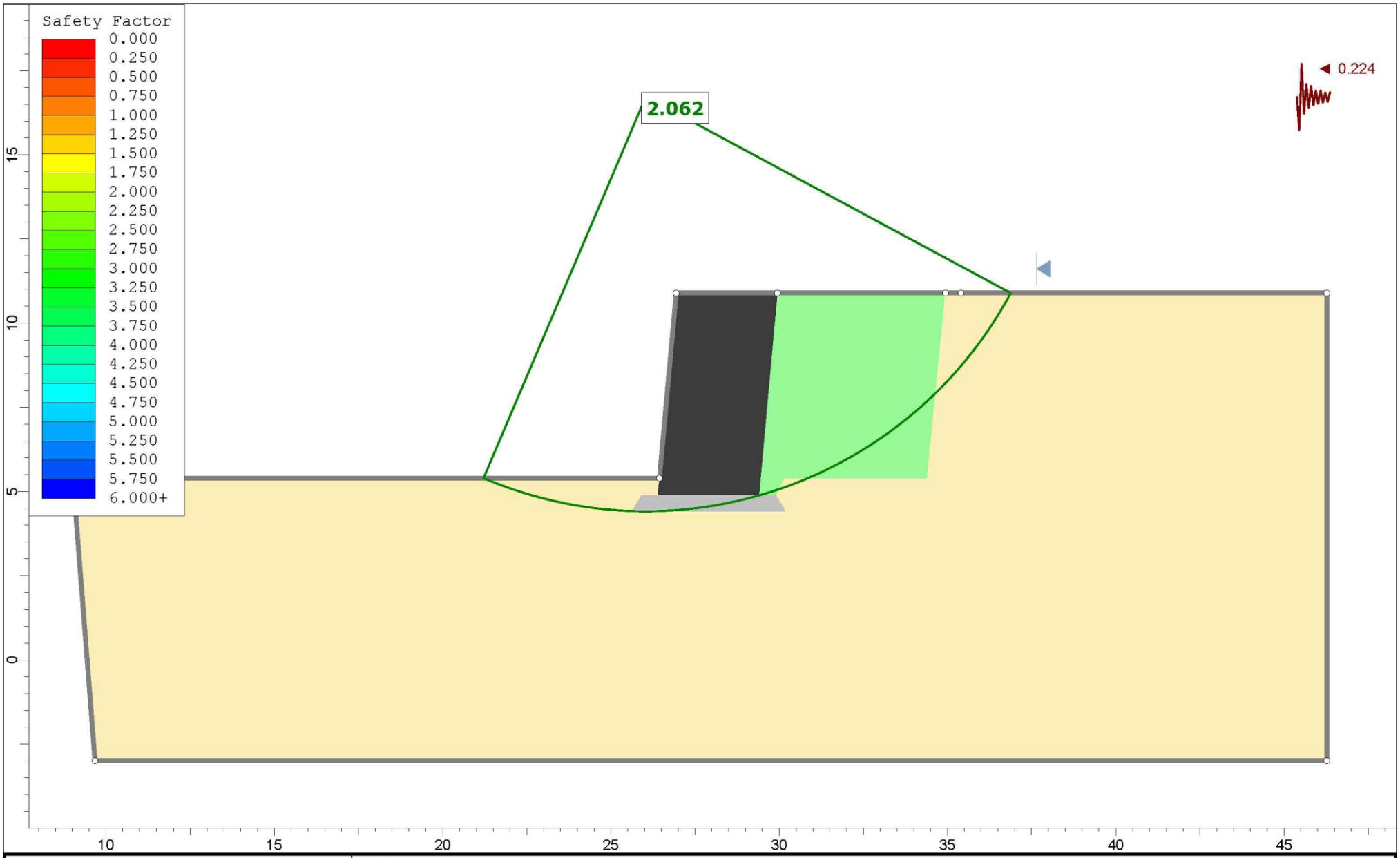
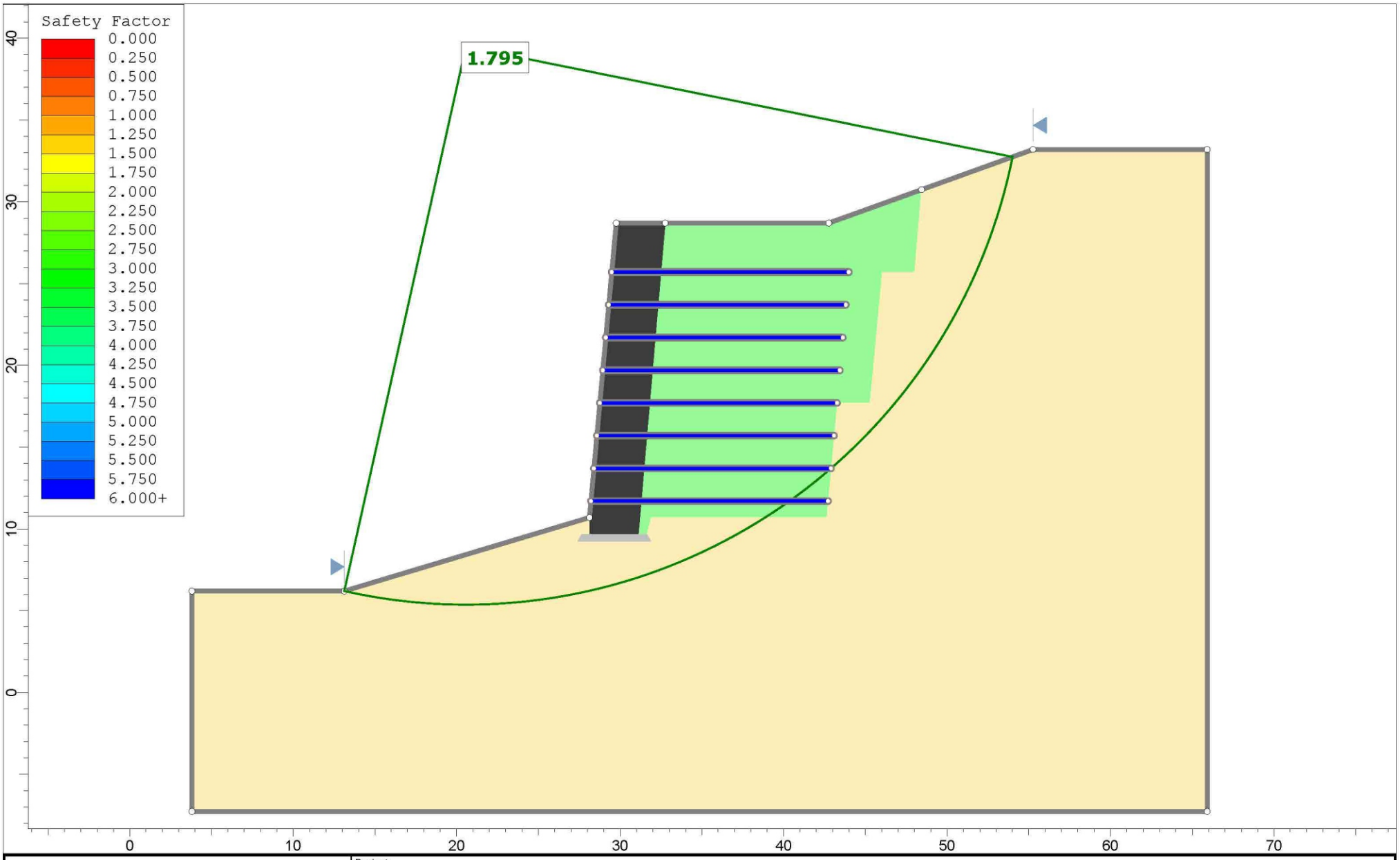
SLIDEINTERPRET 9.038

Project	Sundown Condos Phase 2		
Group	Wall 2 Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



AMMTEC CONSULTANTS, PLLC CONSULTING ENGINEERING SERVICES SLIDEINTERPRET 9.038	Project	Sundown Condos Phase 2	
	Group	Wall 2 Seismic	Scenario: Master Scenario
	Drawn By	JAM	Company: AMMTEC Consultants, PLLC.
	Date	4/29/2025, 10:26:18 AM	File Name: Slope Stability Analysis.slmd



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Project	Sundown Condos Phase 2		
Group	Wall 3 Static	Scenario	Master Scenario
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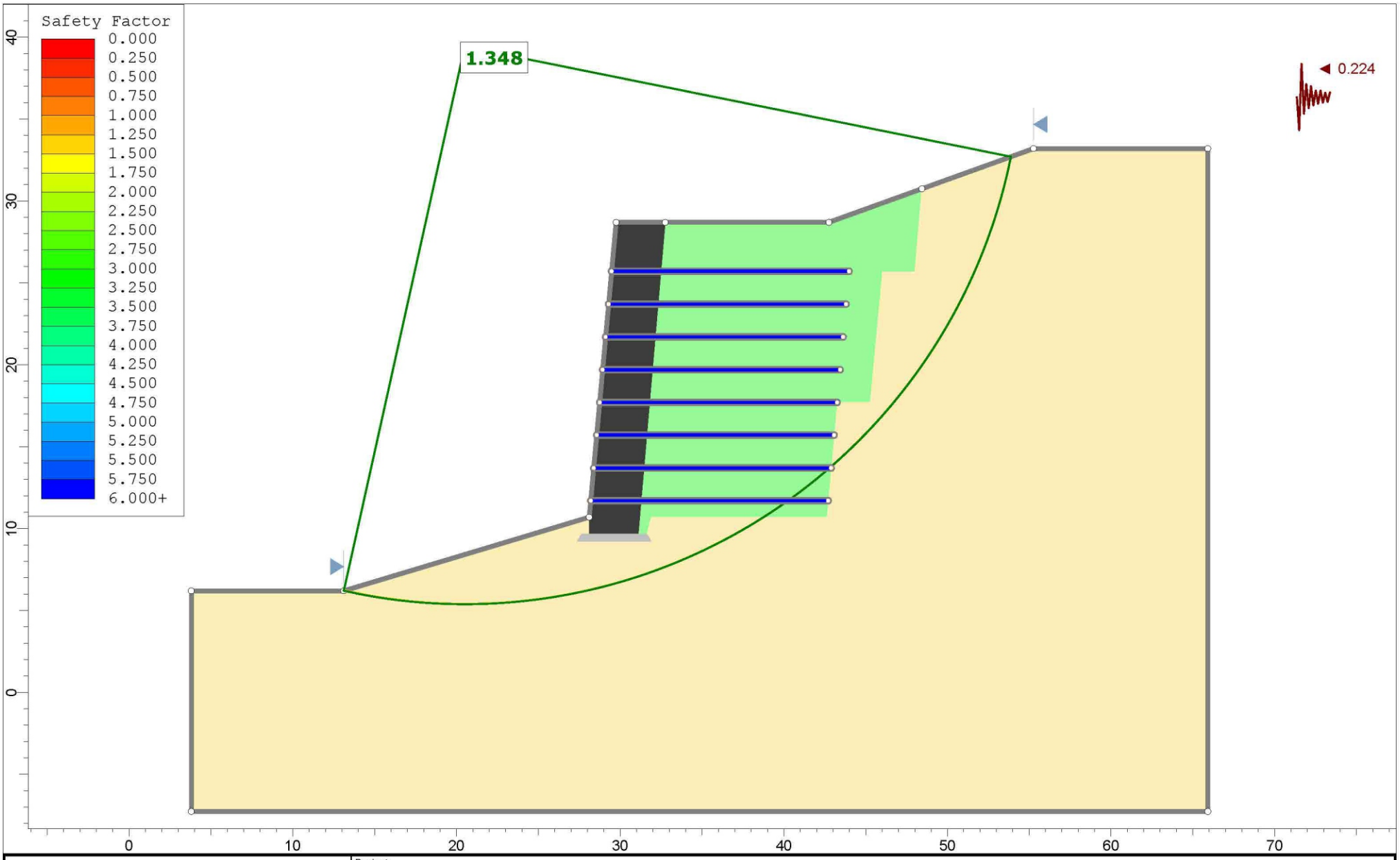
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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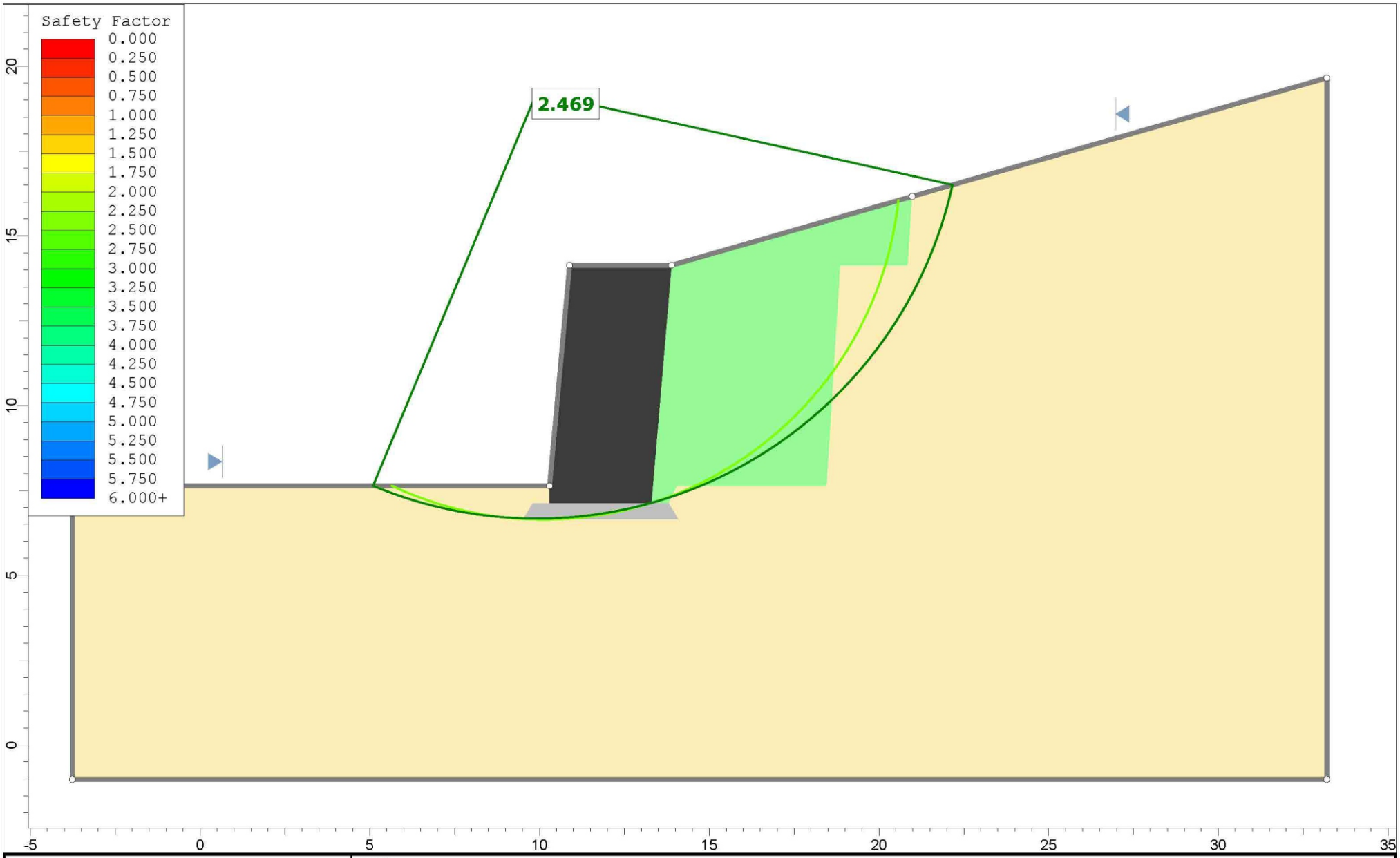
SLIDEINTERPRET 9.038

Project	Sundown Condos Phase 2		
Group	Wall 3 Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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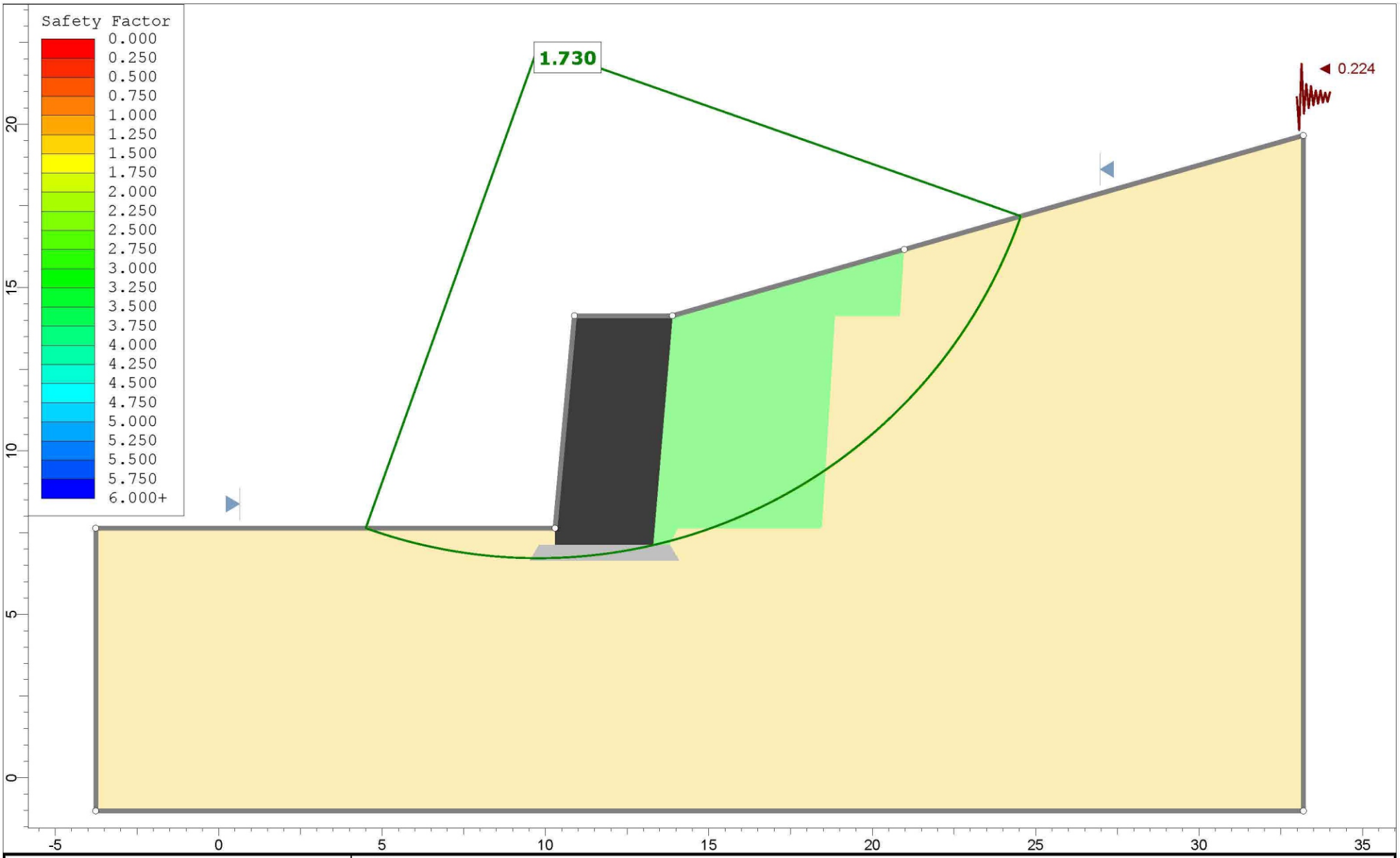
Project	Sundown Condos Phase 2		
Group	Wall 4 Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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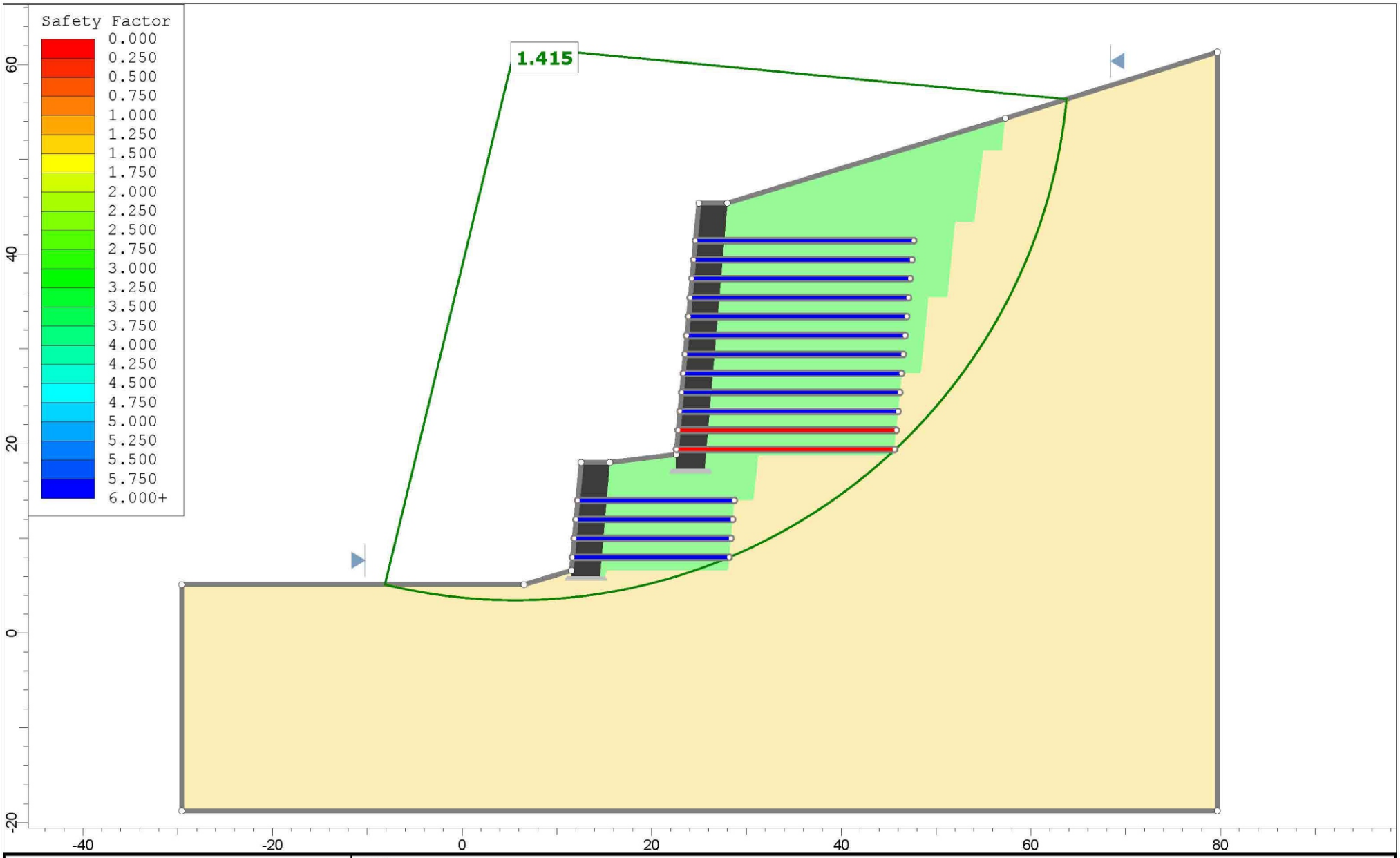
Project	Sundown Condos Phase 2		
Group	Wall 4 Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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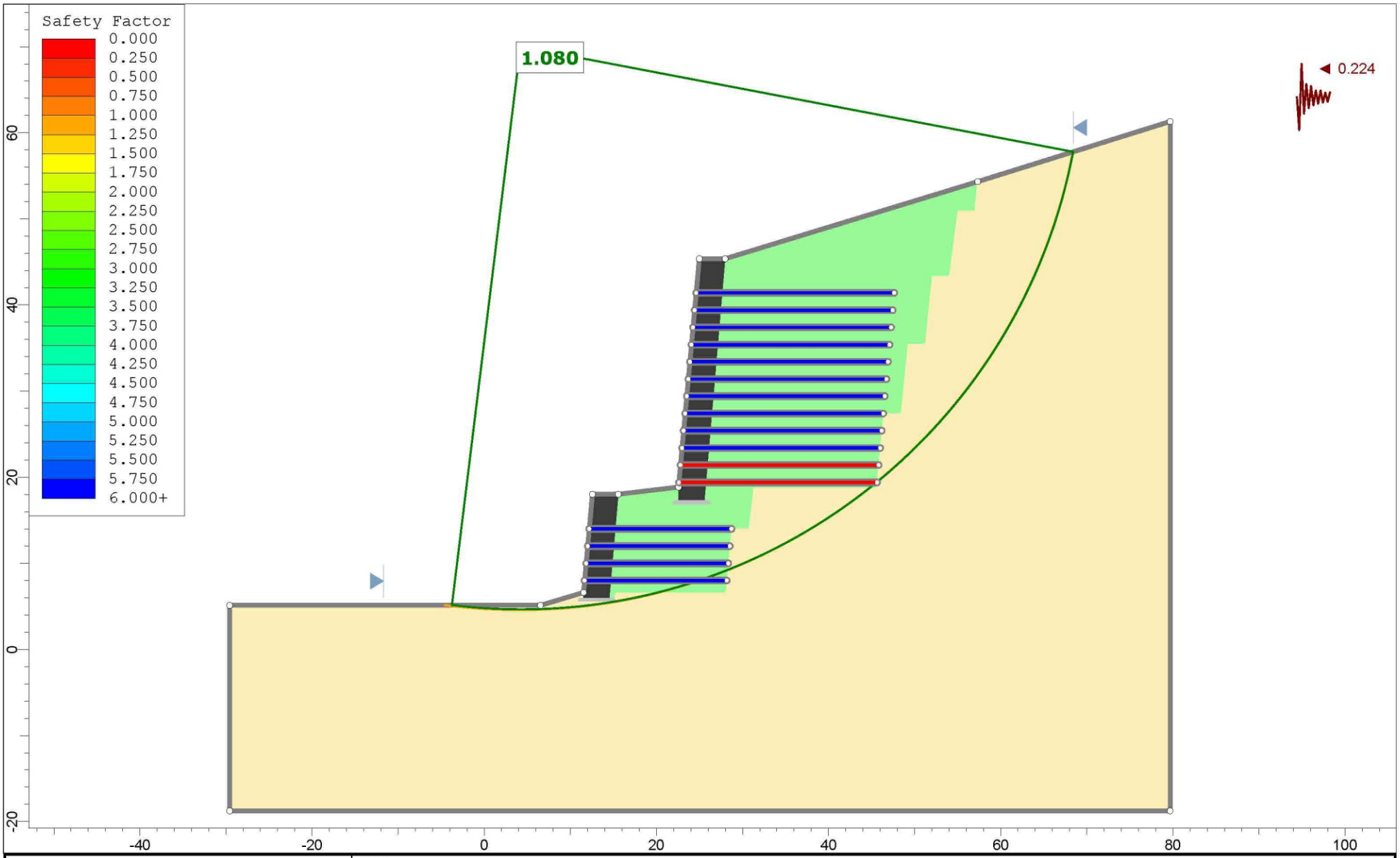
Project	Sundown Condos Phase 2		
Group	Walls 5a and 6 Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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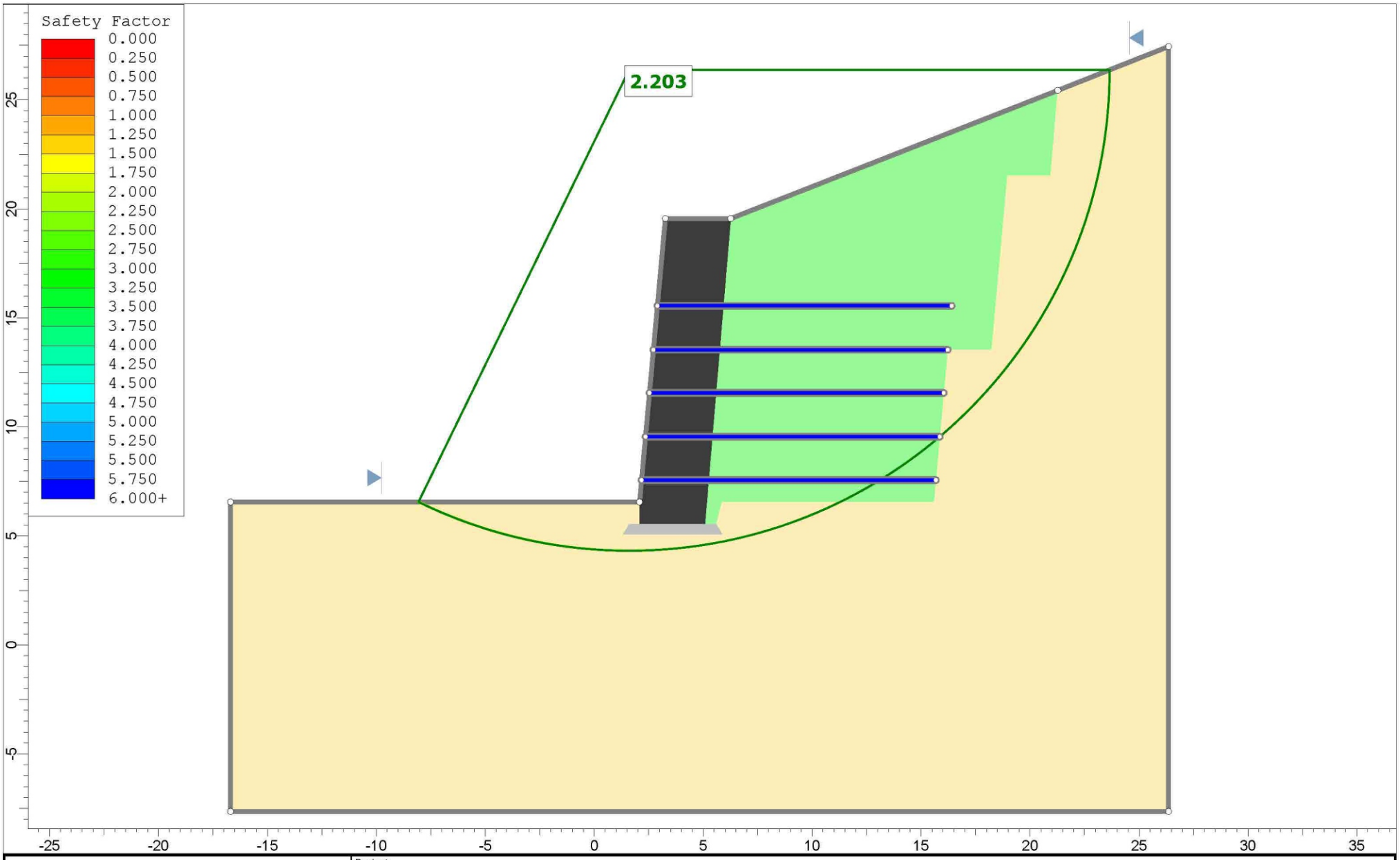
Project	Sundown Condos Phase 2		
Group	Walls 5a and 6 Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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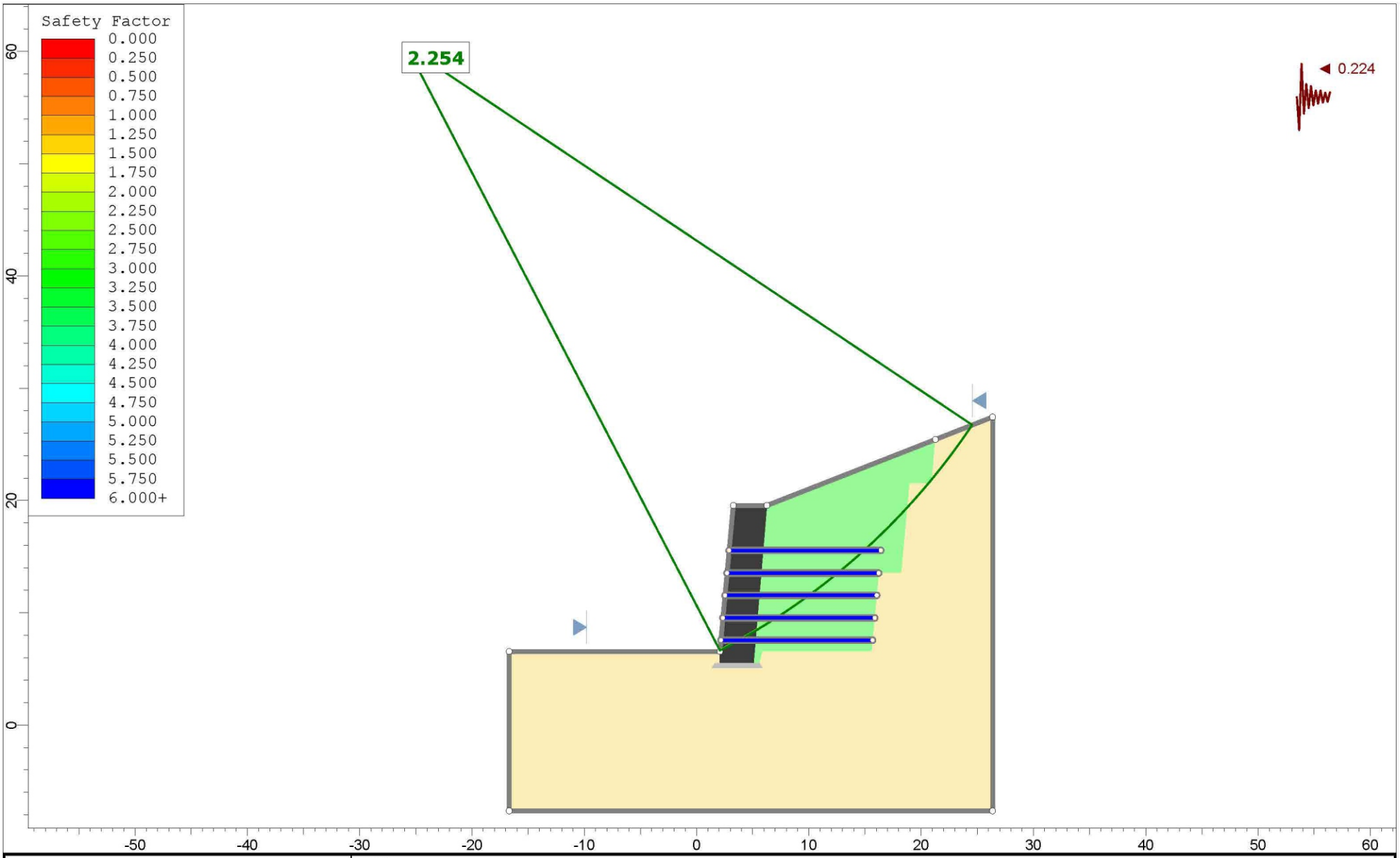
Project	Sundown Condos Phase 2		
Group	Wall 7 Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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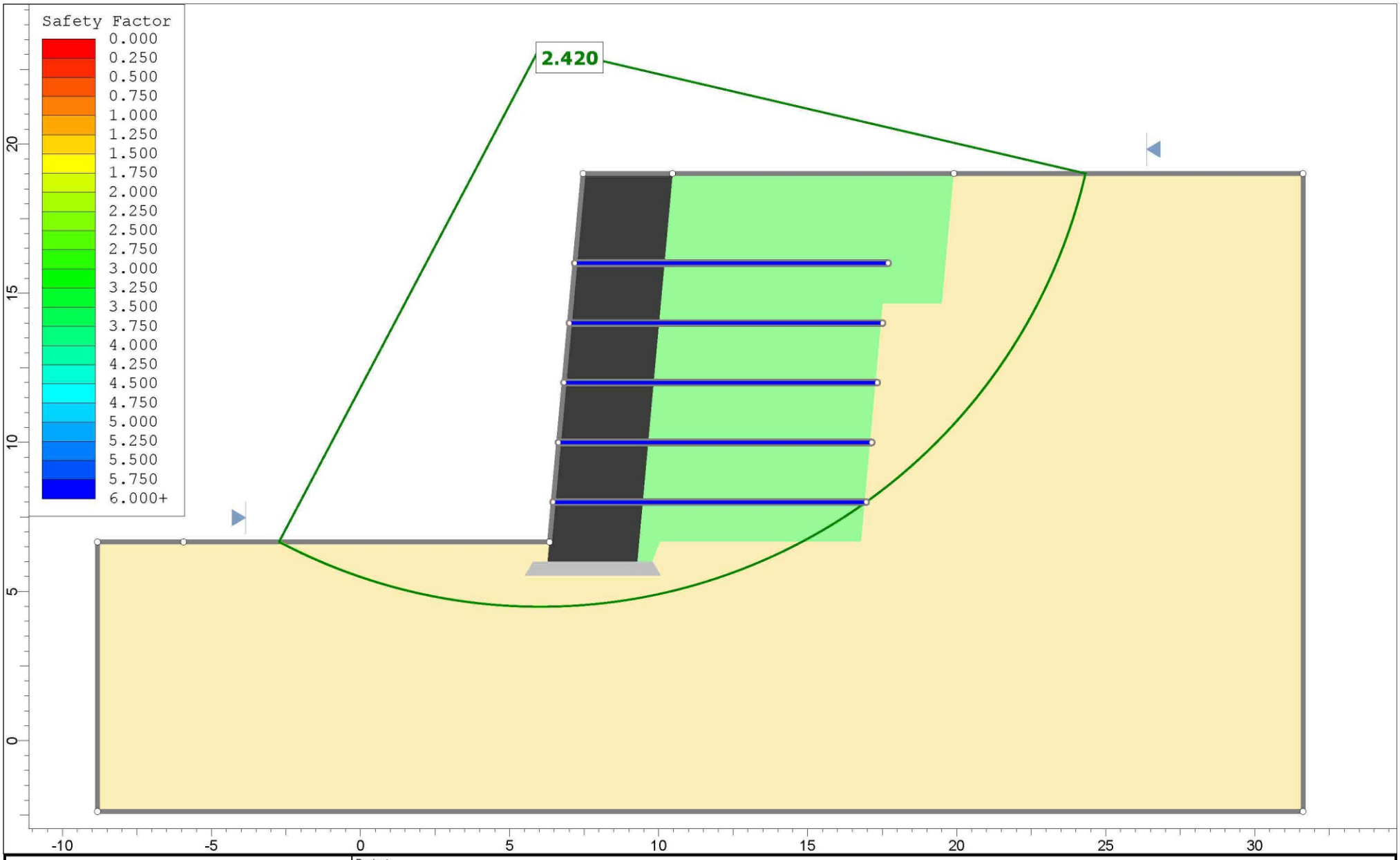
Project	Sundown Condos Phase 2		
Group	Wall 7 Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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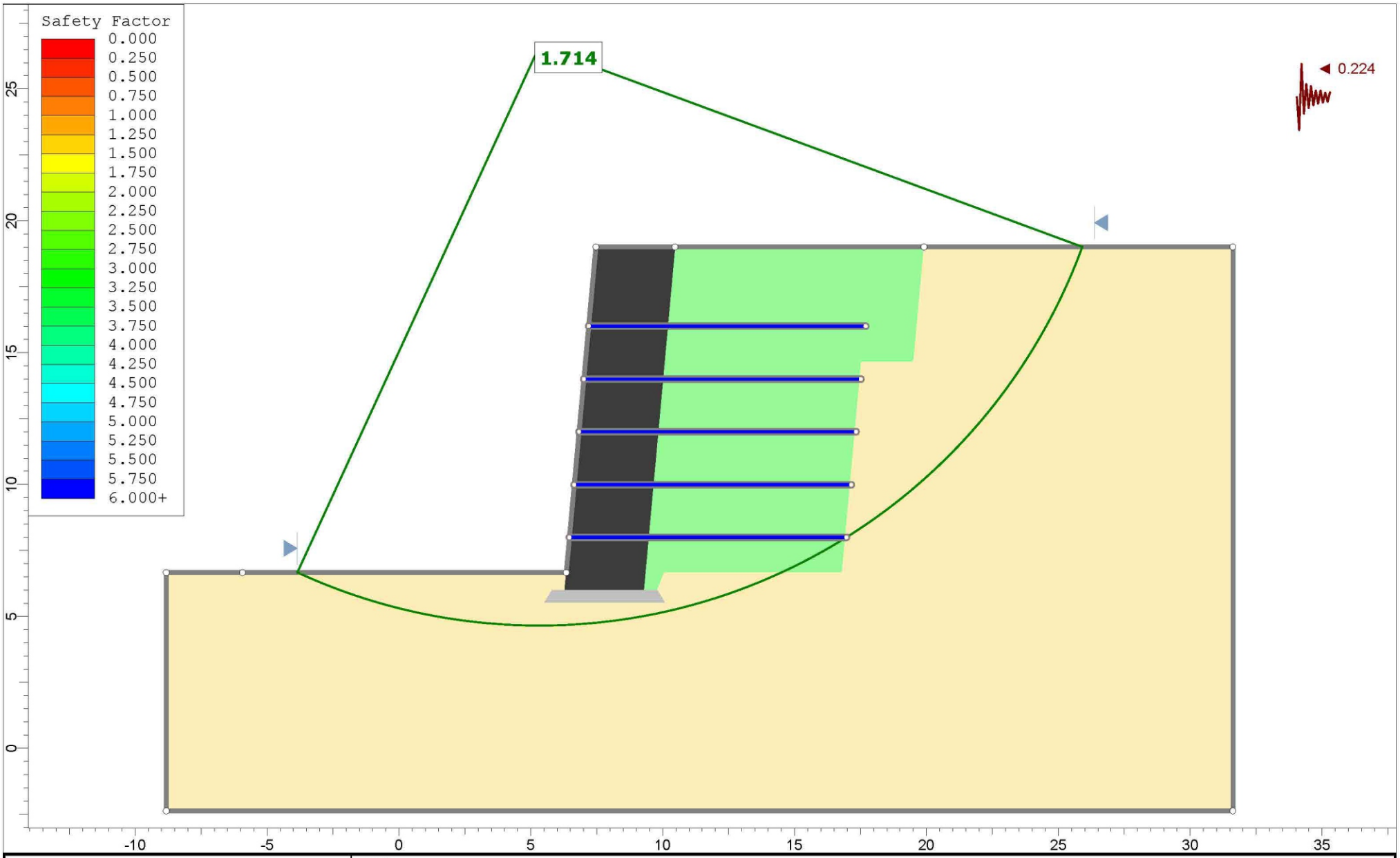
Project	Sundown Condos Phase 2		
Group	Wall 8 Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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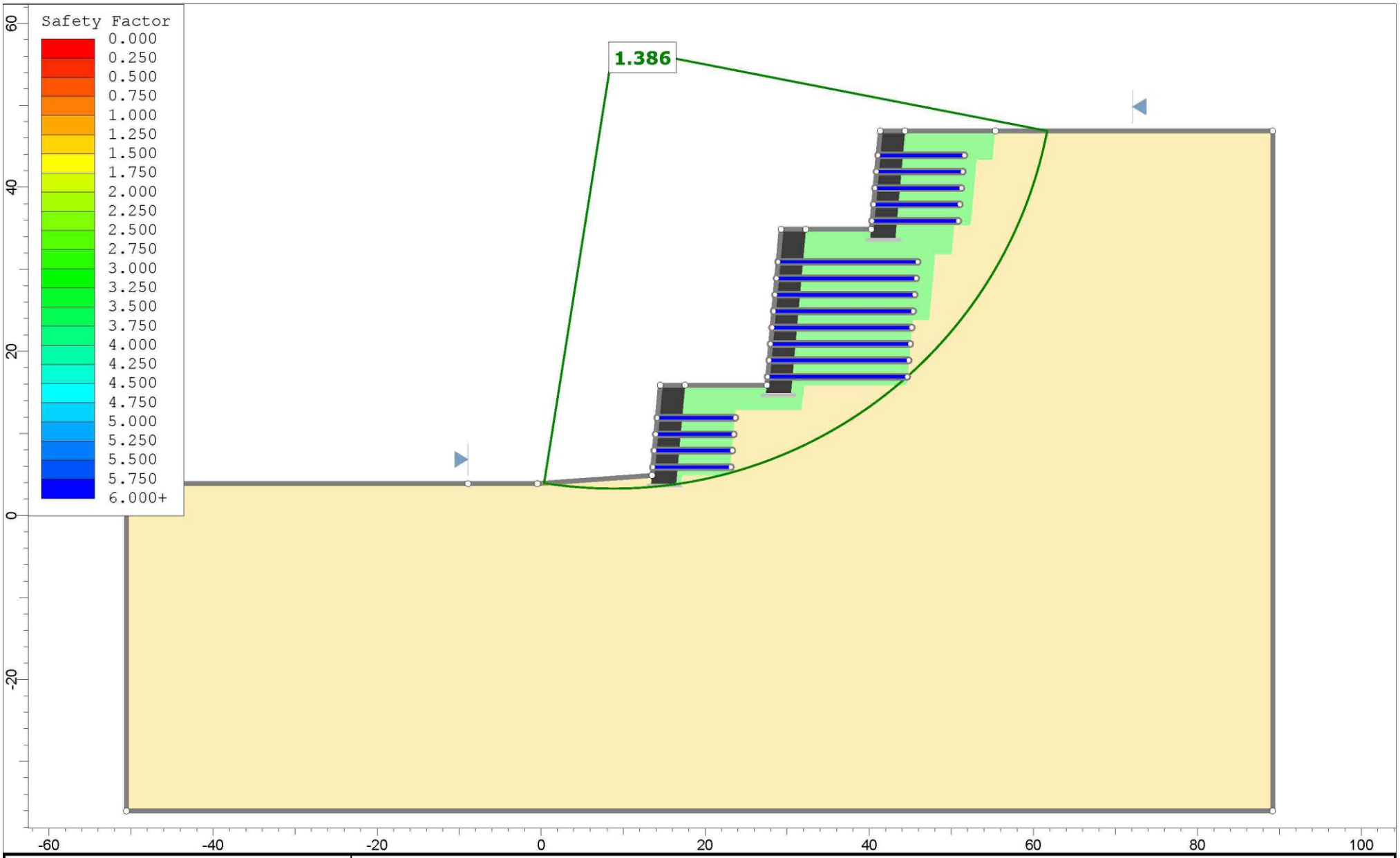
Project	Sundown Condos Phase 2		
Group	Wall 8 Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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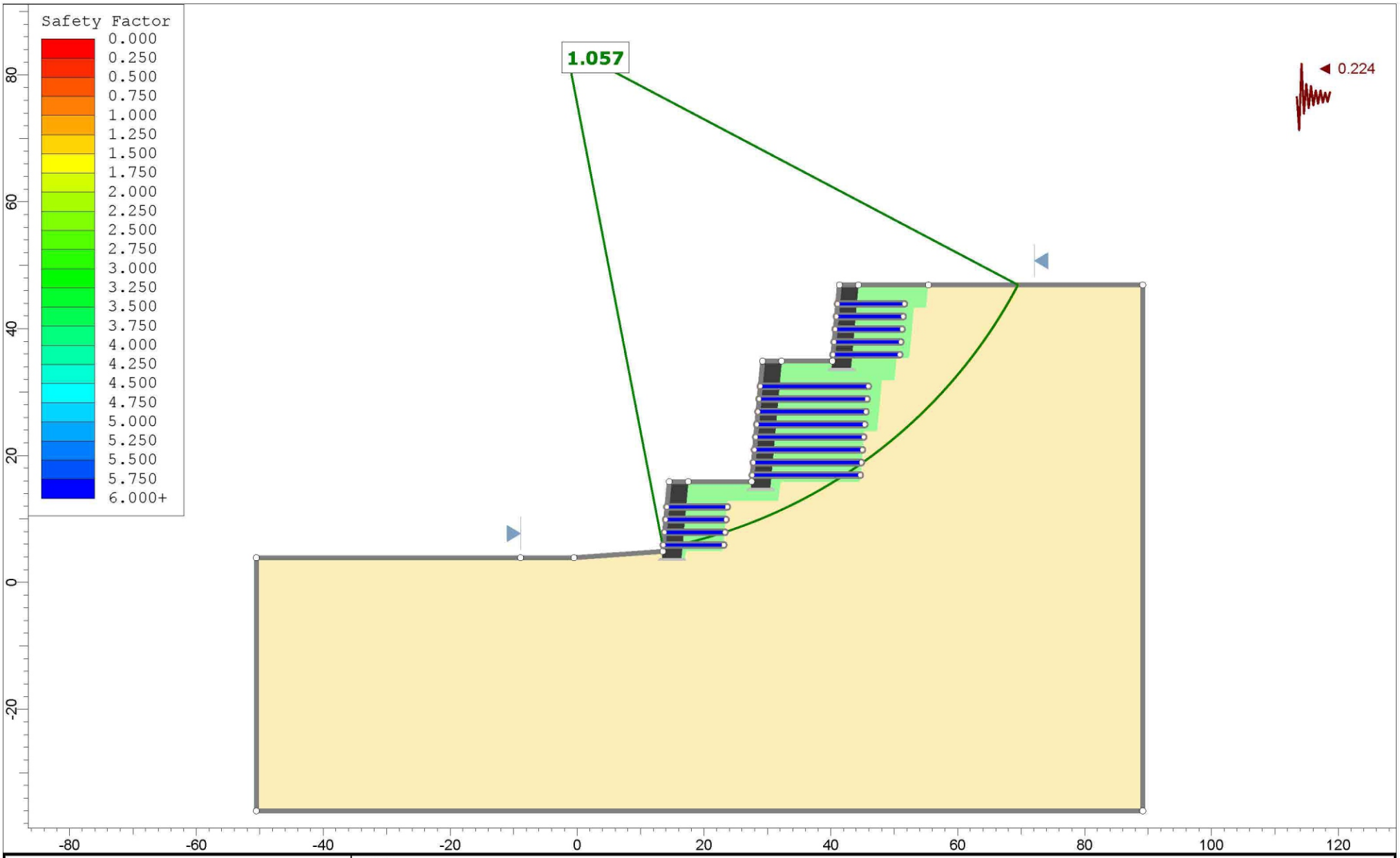
Project	Sundown Condos Phase 2		
Group	Walls 9, 10, and 12a Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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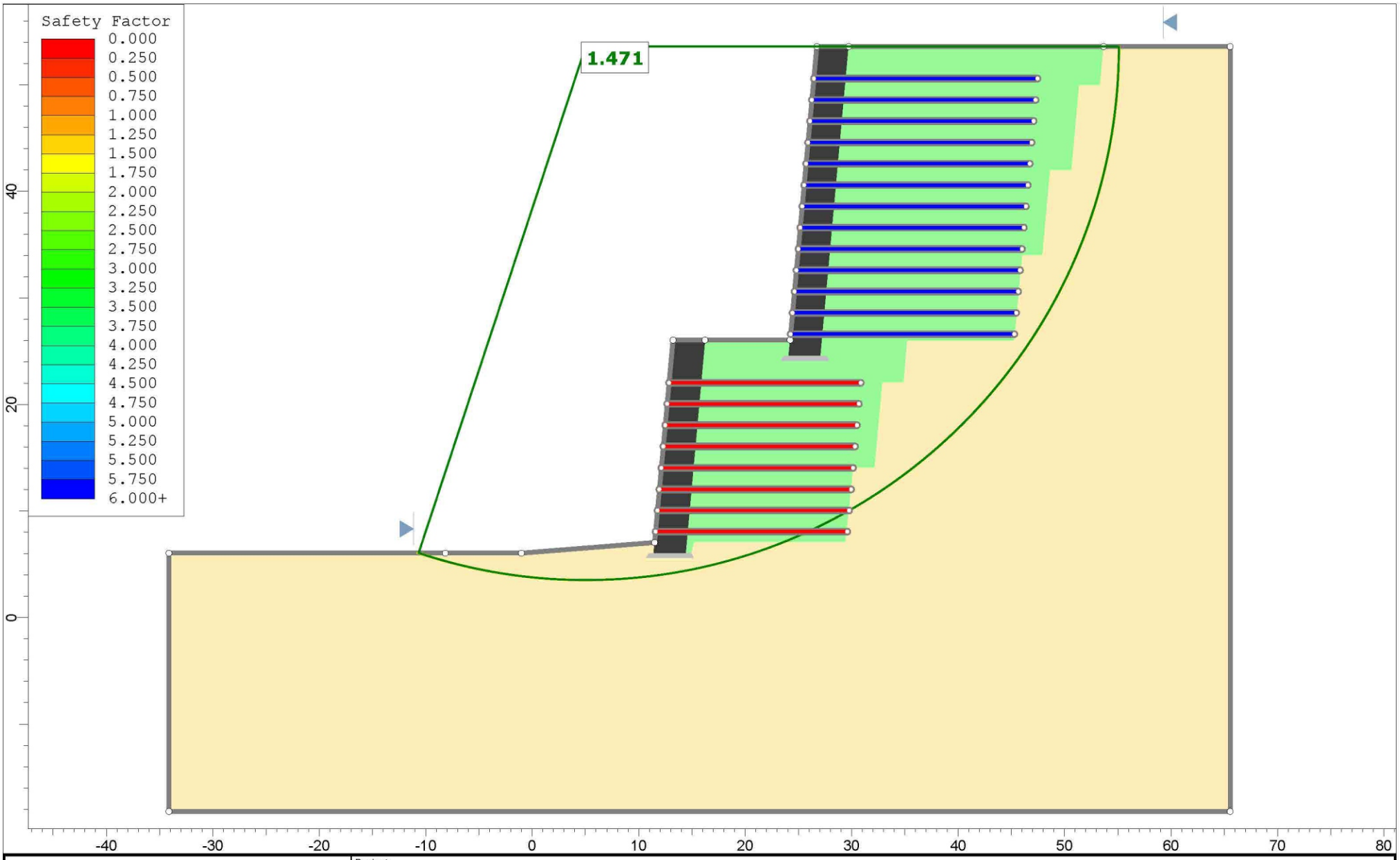
Project	Sundown Condos Phase 2		
Group	Walls 9,10, and 12a Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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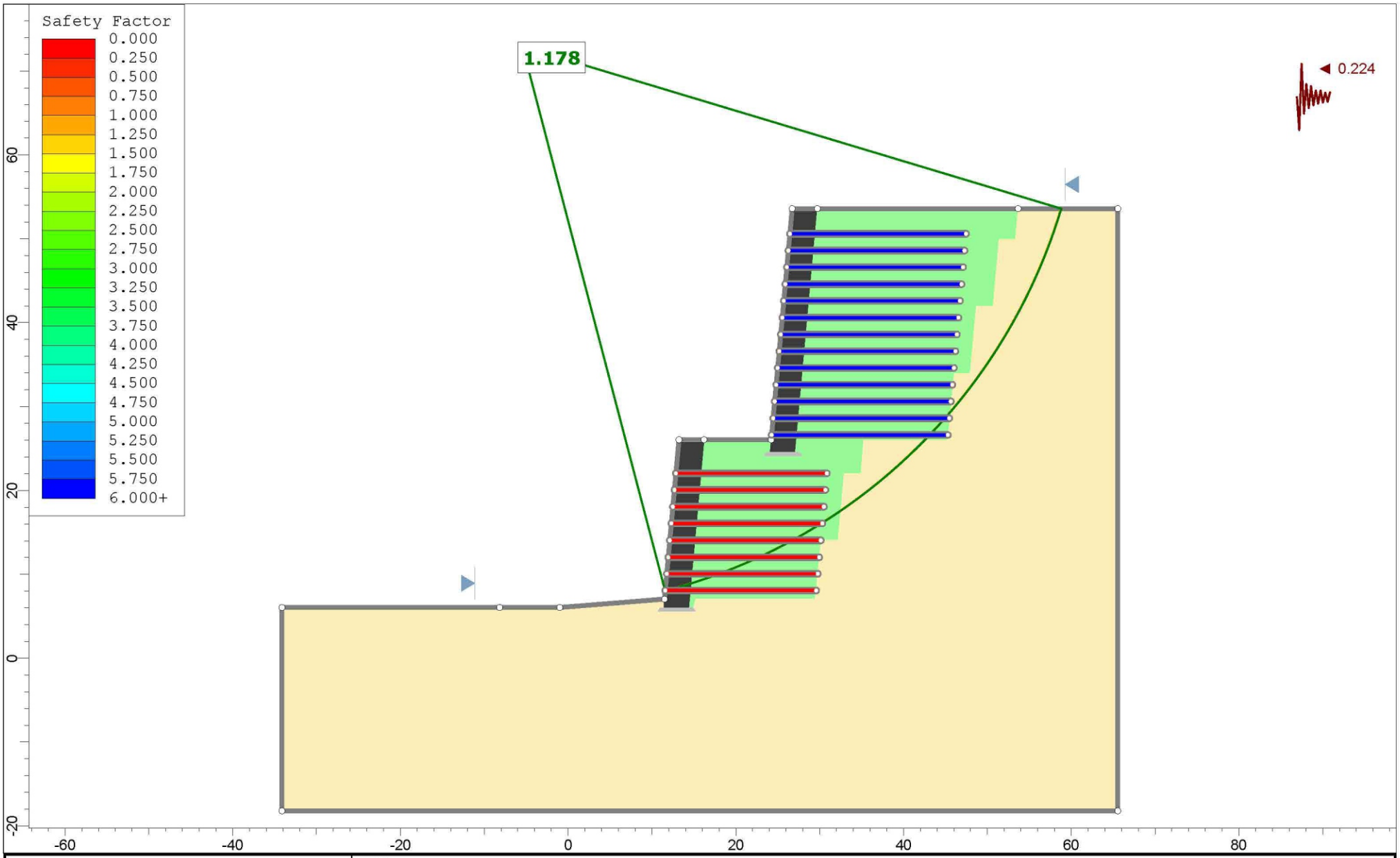
SLIDEINTERPRET 9.038

Project	Sundown Condos Phase 2		
Group	Walls 11 and 12b Static	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd



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SLIDEINTERPRET 9.038

Project	Sundown Condos Phase 2		
Group	Walls 11 and 12b Seismic	Scenario	Master Scenario
Drawn By	JAM	Company	AMMTEC Consultants, PLLC.
Date	4/29/2025, 10:26:18 AM	File Name	Slope Stability Analysis.slmd