

**CHART FOR MIRAFI MIRAGRID**

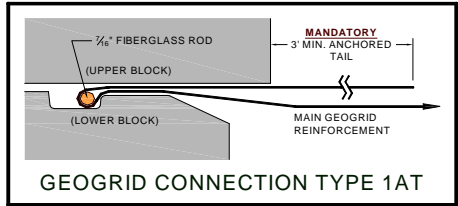
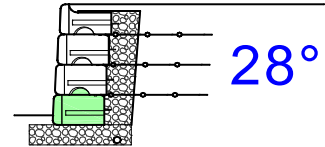
**18" HIGH BOTTOM BLOCK**

**Silty Sand, Clayey Sand - Internal Angle of Friction ( $\phi$ ) = 28°**

**Load Condition A - No Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)														Est. Geogrid Qty. (Syd/Lf of Wall)				
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid		
3' 0"	6"	6"	VP	None															0.00	0.00	
4' 6"	6"	6"	VP	None															0.00	0.00	
6' 0"	6"	6"	VP	None															0.00	0.00	
7' 6"	6"	6"	VP	1.5	3	4.5	6												3.56	0.00	
			GT	3XT	3XT	3XT	3XT	7.5													
			L	5	6	7	8														
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5											4.83	0.00	
			GT	3XT	3XT	3XT	3XT	3XT													
			L	6	6	7	8	9													
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9										6.33	0.00	
			GT	3XT	3XT	3XT	3XT	3XT	3XT												
			L	7	7	7	8	9	10												
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5									8.06	0.00	
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT											
			L	8	8	8	8	8	9	10	11										
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12								10.00	0.00	
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT										
			L	9	9	9	9	9	9	10	11	12									
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5							10.44	1.17	
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
			L	9	9	9	9	9	9	10	11	12	13								
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15						12.61	1.28	
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
			L	10	10	10	10	10	10	10	11	12	13	14							
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5					15.00	1.39	
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT							
			L	11	11	11	11	11	11	11	11	12	13	14	15						
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18				17.61	1.50	
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT						
			L	12	12	12	12	12	12	12	12	12	13	14	15	16					
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5			20.44	1.61	
			GT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT					
			L	13	13	13	13	13	13	13	13	13	13	14	15	16	17				

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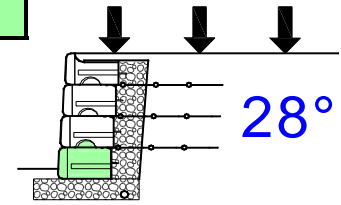
**Other Notes:**

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's Design Manual for Segmental Retaining Walls (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
- All Redi-Rock™ International Wall System Specifications are to be followed.

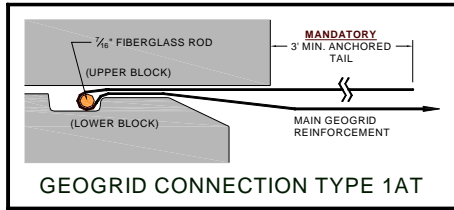
**CHART FOR MIRAFI MIRAGRID**

**18" HIGH BOTTOM BLOCK**

**Silty Sand, Clayey Sand - Internal Angle of Friction ( $\phi$ ) = 28°**  
**Load Condition B - No Back Slope, 250psf Live Load Surcharge**  
**Geogrid Walls - 28" Wide Geoconnector Blocks**  
**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)																Est. Geogrid Qty. (Syd/Lf of Wall)					
			VP	L	GT	VP	L	GT	VP	L	GT	VP	L	GT	VP	L	GT	VP	L	GT	3XT	2 <sup>nd</sup> Grid		
3' 0"	6"	6"	VP	1.5																		1.00	0.00	
			GT	3XT																				
			L	7.5																				
4' 6"	6"	6"	VP	1.5	3																		1.83	0.00
			GT	3XT	3XT																			
			L	6	7.5																			
6' 0"	6"	6"	VP	1.5	3	4.5																	2.78	0.00
			GT	3XT	3XT	3XT																		
			L	6	6	8.5																		
7' 6"	6"	6"	VP	1.5	3	4.5	6																3.83	0.00
			GT	3XT	3XT	3XT	3XT																	
			L	6	6	7	9.5																	
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5															5.00	0.00
			GT	3XT	3XT	3XT	3XT	3XT																
			L	6	6	7	8	10.5																
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9														6.50	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT															
			L	7	7	7	8	9	11.5															
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5													7.17	1.06
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT														
			L	8	8	8	8	9	10	12.5														
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12												9.00	1.17
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT													
			L	9	9	9	9	9	10	11	13.5													
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5											10.61	1.17
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT												
			L	9	9	9	9	9	10	11	12	14.5												
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15										12.78	1.28
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT											
			L	10	10	10	10	10	10	11	12	13	15.5											
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5									15.17	1.39
			GT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT										
			L	11	11	11	11	11	11	11	12	13	14	16.5										
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18								17.78	1.50
			GT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
			L	12	12	12	12	12	12	12	12	13	14	15	17.5									
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5							19.83	3.44
			GT	8XT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
			L	14	14	14	14	14	14	14	14	14	14	15	16	19								



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**Other Notes:**

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
- All Redi-Rock™ International Wall System Specifications are to be followed.

**CHART FOR MIRAFI MIRAGRID**

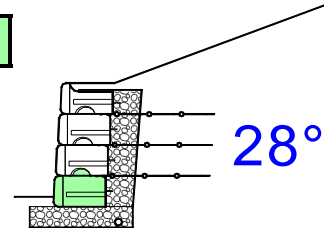
**18" HIGH BOTTOM BLOCK**

**Silty Sand, Clayey Sand - Internal Angle of Friction ( $\phi$ ) = 28°**

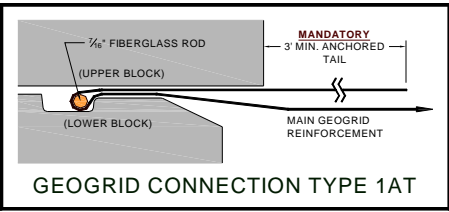
**Load Condition C - 2.5:1 Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)												Est. Geogrid Qty. (Syd/Lf of Wall)					
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid	
3' 0"	6"	6"	VP	None															0.00	0.00
4' 6"	6"	6"	VP	None															0.00	0.00
6' 0"	1' 0"	6"	VP	1.5	3	4.5													2.94	0.00
			GT	3XT	3XT	3XT														
7' 6"	1' 0"	6"	VP	1.5	3	4.5	6												4.56	0.00
			GT	3XT	3XT	3XT	3XT													
9' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5											5.22	1.28
			GT	5XT	3XT	3XT	3XT	3XT												
10' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9										6.61	1.17
			GT	5XT	3XT	3XT	3XT	3XT	3XT											
12' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5									9.33	1.50
			GT	10XT	3XT	3XT	3XT	3XT	3XT	3XT										
13' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12								12.83	1.83
			GT	10XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
15' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5							17.33	2.17
			GT	10XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
16' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15						19.11	4.78
			GT	20XT	20XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT						
18' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5					20.89	7.83
			GT	20XT	20XT	20XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT					
			VP																0.00	0.00
			GT																0.00	0.00



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Other Notes:

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
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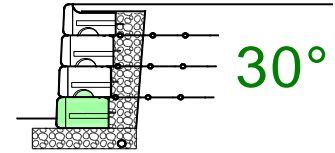
**18" HIGH BOTTOM BLOCK**

**Silty Sand, Fine to Medium Sand - Internal Angle of Friction ( $\phi$ ) = 30°**

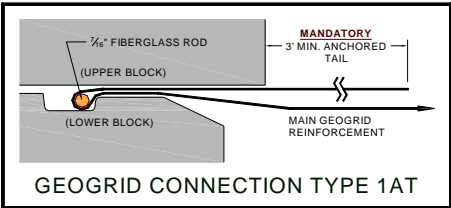
**Load Condition A - No Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)																Est. Geogrid Qty. (Syd/Lf of Wall)					
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid		
3' 0"	6"	6"	VP	None																	0.00	0.00		
4' 6"	6"	6"	VP	None																		0.00	0.00	
6' 0"	6"	6"	VP	None																		0.00	0.00	
7' 6"	6"	6"	VP	1.5	3	4.5	6															3.56	0.00	
			GT	3XT	3XT	3XT	3XT																	
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5															4.83	0.00
			GT	3XT	3XT	3XT	3XT																	
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9														6.33	0.00
			GT	3XT	3XT	3XT	3XT	3XT																
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5													7.94	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT														
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12												9.78	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT												
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5											11.28	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT											
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15										12.17	1.28
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5									14.56	1.39
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18								17.17	1.50
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT							
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5							20.00	1.61
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT						



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Other Notes:

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
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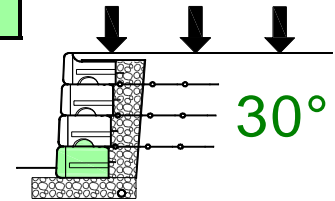
**18" HIGH BOTTOM BLOCK**

**Silty Sand, Fine to Medium Sand - Internal Angle of Friction ( $\phi$ ) = 30°**

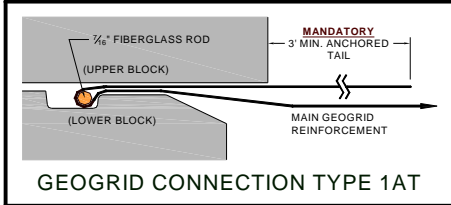
**Load Condition B - No Back Slope, 250psf Live Load Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)																Est. Geogrid Qty. (Syd/Lf of Wall)				
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid	
3' 0"	6"	6"	VP	None																		0.00	0.00
4' 6"	6"	6"	VP	1.5	3																	1.67	0.00
6' 0"	6"	6"	VP	1.5	3	4.5																2.61	0.00
7' 6"	6"	6"	VP	1.5	3	4.5	6															3.67	0.00
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5														4.94	0.00
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9													6.44	0.00
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5												8.06	0.00
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12											8.83	1.17
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5										10.11	1.17
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15									12.28	1.28
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5								14.67	1.39
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18							17.28	1.50
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5						20.11	1.61



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Other Notes:

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
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- All Redi-Rock™ International Wall System Specifications are to be followed.

**CHART FOR MIRAFI MIRAGRID**

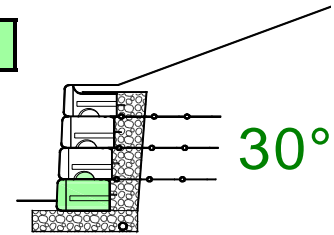
**18" HIGH BOTTOM BLOCK**

**Silty Sand, Fine to Medium Sand - Internal Angle of Friction ( $\phi$ ) = 30°**

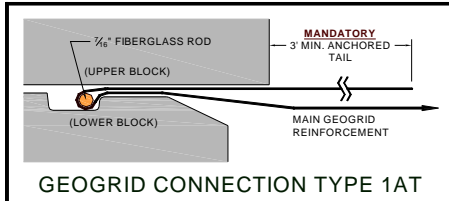
**Load Condition C - 2.5:1 Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)															Est. Geogrid Qty. (Syd/Lf of Wall)					
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid	
3' 0"	6"	6"	VP	None																		0.00	0.00
4' 6"	6"	6"	VP	None																		0.00	0.00
6' 0"	6"	6"	VP	1.5	3	4.5																2.61	0.00
7' 6"	6"	6"	VP	1.5	3	4.5	6															3.89	0.00
9' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5														5.17	0.00
10' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9													6.06	1.06
12' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5												8.22	1.28
13' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12											9.61	1.17
15' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5										12.78	1.50
16' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15									15.39	1.61
18' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5								16.50	3.44
19' 6"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18							18.17	5.83
21' 0"	1' 6"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5						19.28	8.22



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**Other Notes:**

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
- All Redi-Rock™ International Wall System Specifications are to be followed.

**CHART FOR MIRAFI MIRAGRID**

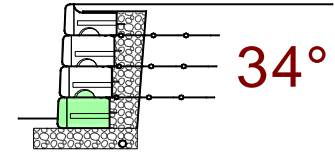
**18" HIGH BOTTOM BLOCK**

**Dense Well Graded Sand, Sand and Gravel - Internal Angle of Friction ( $\phi$ ) = 34°**

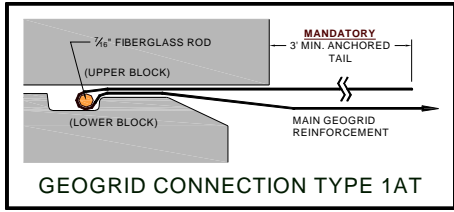
**Load Condition A - No Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)															Est. Geogrid Qty. (Syd/Lf of Wall)		
			VP	GT	L													3XT	2 <sup>nd</sup> Grid	
3' 0"	6"	6"	VP	None															0.00	0.00
4' 6"	6"	6"	VP	None															0.00	0.00
6' 0"	6"	6"	VP	None															0.00	0.00
7' 6"	6"	6"	VP	None															0.00	0.00
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5											4.50	0.00
			GT	3XT	3XT	3XT	3XT	3XT												
			L	6	6	6	7	8												
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9										6.00	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT											
			L	7	7	7	7	8	9											
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5									7.72	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT										
			L	8	8	8	8	8	9	10										
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12								9.67	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
			L	9	9	9	9	9	9	10	11									
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5							11.17	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
			L	9	9	9	9	9	9	10	11	12								
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15						13.33	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT							
			L	10	10	10	10	10	10	10	11	12	12							
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5					15.72	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT						
			L	11	11	11	11	11	11	11	11	12	12	13						
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18				16.83	1.50
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT					
			L	12	12	12	12	12	12	12	12	12	13	14						
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5			19.67	1.61
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT				
			L	13	13	13	13	13	13	13	13	13	13	14	15					



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Other Notes:

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
- All Redi-Rock™ International Wall System Specifications are to be followed.

**CHART FOR MIRAFI MIRAGRID**

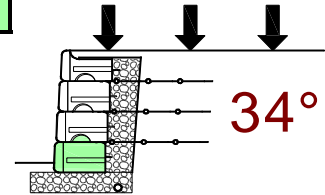
**18" HIGH BOTTOM BLOCK**

**Dense Well Graded Sand, Sand and Gravel - Internal Angle of Friction ( $\phi$ ) = 34°**

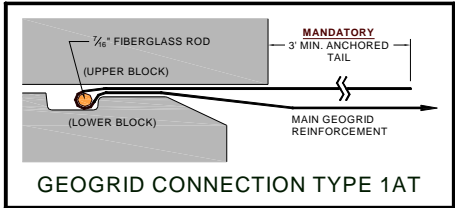
**Load Condition B - No Back Slope, 250psf Live Load Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)															Est. Geogrid Qty. (Syd/Lf of Wall)					
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid	
3' 0"	6"	6"	VP	None																		0.00	0.00
4' 6"	6"	6"	VP	None																		0.00	0.00
6' 0"	6"	6"	VP	1.5	3	4.5																2.50	0.00
			GT	3XT	3XT	3XT																	
7' 6"	6"	6"	VP	1.5	3	4.5	6															3.33	0.00
			GT	3XT	3XT	3XT	3XT																
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5														4.50	0.00
			GT	3XT	3XT	3XT	3XT	3XT															
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9													6.00	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT														
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5												7.72	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT													
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12											9.67	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT											
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5										11.17	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT										
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15									12.17	1.28
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT								
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5								14.56	1.39
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT							
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18							16.83	1.50
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT						
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5						19.67	1.61
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT					



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**Other Notes:**

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
- Global stability has not been addressed in these charts.
- The wall design shall address both internal and external drainage and shall be evaluated by the Professional Engineer who is responsible for the final wall design.
- Backfill material to be compacted to 95% standard proctor.
- All Redi-Rock™ International Wall System Specifications are to be followed.

**CHART FOR MIRAFI MIRAGRID**

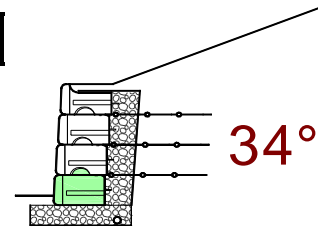
**18" HIGH BOTTOM BLOCK**

**Dense Well Graded Sand, Sand and Gravel - Internal Angle of Friction ( $\phi$ ) = 34°**

**Load Condition C - 2.5:1 Back Slope, No Surcharge**

**Geogrid Walls - 28" Wide Geoconnector Blocks**

**Geogrid Connection Type 1AT**



**34°**

Wall Height	Bury Depth	Level Pad	Geogrid Vertical Placement (VP), Grid Type (GT), and Lengths (L) (Dimensions Measured in Feet from Face of Block)																Est. Geogrid Qty. (Syd/Lf of Wall)						
			VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	VP	GT	L	3XT	2 <sup>nd</sup> Grid			
3' 0"	6"	6"	VP	None																		0.00	0.00		
4' 6"	6"	6"	VP	None																			0.00	0.00	
6' 0"	6"	6"	VP	1.5	3	4.5																	2.50	0.00	
			GT	3XT	3XT	3XT																			
			L	5	6	7																			
7' 6"	6"	6"	VP	1.5	3	4.5	6																3.56	0.00	
			GT	3XT	3XT	3XT	3XT																		
			L	5	6	7	8																		
9' 0"	6"	1' 0"	VP	1.5	3	4.5	6	7.5																4.83	0.00
			GT	3XT	3XT	3XT	3XT	3XT																	
			L	6	6	7	8	9																	
10' 6"	6"	1' 0"	VP	1.5	3	4.5	6	7.5	9															6.33	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT																
			L	7	7	7	8	9	10																
12' 0"	7"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5														8.06	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT															
			L	8	8	8	8	9	10	11															
13' 6"	8"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12													10.11	0.00
			GT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT														
			L	9	9	9	9	9	10	11	13														
15' 0"	9"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5												10.67	1.17
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT													
			L	9	9	9	9	9	10	11	13	14													
16' 6"	10"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15											12.94	1.28
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT												
			L	10	10	10	10	10	10	11	13	14	15												
18' 0"	11"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5										15.44	1.39
			GT	5XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT											
			L	11	11	11	11	11	11	11	13	14	15	16											
19' 6"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18									18.17	1.50
			GT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT										
			L	12	12	12	12	12	12	12	13	14	15	16	17										
21' 0"	1' 0"	1' 0"	VP	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5								21.00	1.61
			GT	8XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT	3XT									
			L	13	13	13	13	13	13	13	13	14	15	16	17	18									

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Other Notes:

- Unit weight of 28°, 30°, 34° and 40° soils is assumed to be 120pcf.
- Minimum factors of safety are 1.5 for sliding, 2.0 for overturning and 2.0 for bearing capacity.
- Designs are in general accordance with NCMA's [Design Manual for Segmental Retaining Walls](#) (3rd ed.).
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