HIMACHAL PRADESH PUBLIC WORKS DEPARTMENT

No.PW- E-in-C(QC&D)/D/Cell-SOR/2018-2802-08

Dated:- 0//12/2018

The Nodal officer(IT), H.P.P.W.D Nirman Bhawan., Shimla-2.

Subject: - Uploading the approved items to be included in HPSR on the HPPWD website

Following items have been approved by the committee for Schedule of Rates which may be uploaded on HP.PWD website immediately.

Encl :- Abstract of Analysis of rates

Engineer-in Chief(Projects), HPPWD,U.S.Club,Shimla-1

Copy to:-

- 1) All the Zonal Chief Engineers for information please.
- 2) The Chief Engineer (NH) for information please.

3) The Chief Engineer (HPRIDC) for information please.

Engineer-in-Chief (Projects) HPPWD,U.S.Club,Shimla-1

То

ITEM CODE	ITEM NAME	UNIT	LABOUR RATE	THROUGH RATE	REMARKS
19460000	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of ± 2%) zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge.	Cum	154.50	1022.10	
19470000	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of ± 2%) Zinc+PVC coated, Mesh wire diameter 2.7/3.7mm, mechanically edged / selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/ 3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in- charge.	Cum	154.50	2124.80	
19480000	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type $10x12(D=100 \text{ mm}$ with tolerance of $\pm 2\%$), Zinc+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged /selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of				
	Engineer- in-charge.	Cum	154.50	2572.00	

19490000	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength				
	15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh				
	opening.	Sqm	4.25	125.60	
19500000	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X			142.50	
	38mm mesh opening.	Sqm	4.25	143.50	
19510000	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5 kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	Sqm	4.25	231.60	
19520000	modulus polypropylene geogrid for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X	Sqm	4.25	336.40	
	38mm mesh opening.	Sqm	4.23	550.40	

10520000					
19530000	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside-drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermo bonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm characteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m , with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.				
19540000		Sqm	4.25	648.20	
19340000	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 gsm and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m , with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer -in - Charge.	Sam	4.25	770.80	
19550000	Supplying and laying high strength flexible	Sqm	4.25	770.80	
	geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain.				

19550100	Ultimate tensile strength- 100 kN/m				
19550200	Ultimate tensile strength, 150 km/m	Sqm	4.25	259.80	
19550300	The strength 150 kiv/m	Sqm	4.25	285.30	
19550400	200 kiv/m	Sqm	4.25	387.50	
19550500	Ultimate tensile strength- 250 kN/m	Sqm	4.25	425.90	
	Ultimate tensile strength- 300 kN/m	Sqm	4.25		
19550600	Ultimate tensile strength- 350 kN/m	Sqm		451.40	
19550700	Ultimate tensile strength- 400 kN/m		4.25	502.50	
19550800	Ultimate tensile strength- 500 kN/m	Sqm	4.25	540.80	
19550900	Ultimate tensile strength- 600 kN/m	Sqm	4.25	643.10	
19551000	Ultimate tensile strength- 700 kN/m	Sqm	4.25	706.90	
19551100	Ultimate tensile strength- 800 kN/m	Sqm	4.25	834.70	
19551200	Ultimate tensile strength- 900 kN/m	Sqm	4.25	908.80	
19551300	Ultimate tensile strength- 1000 kN/m	Sqm	4.25	1078.70	
19551400	Ultimate tensile strength 1100 kN/m	Sqm	4.25	1218.00	
9551500	Ultimate tensile strength- 1100 kN/m	Sqm	4.25	1281.90	
5551500	Ultimate tensile strength- 1200 kN/m	Sqm	4.25	1394.30	

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D) HP.PWD. U.S. Cub Shimla-1.

00 Engineer in Chief (Projects) HP.PWD. U.S. Club Shimla-1.

Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of \pm 2%) zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge. Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum

MATERIAL

19460000

MATERIAL			100.00	2000.00
Crates made of Mesh type 10x12 (D=100 mm) Zn	Sqm	11.00	190.00	2090.00
coated. (Mesh wire diameter 3.00 mm).Surface area				
required = 11.00 sqm	Cum	2.00	300.00	600.00
Stone boulder with least dimension 200mm	Cum	2.00	300.00	000.00
CARRIAGE :				
Soling stone and filling crate	Cum	2.00	130.50	261.00
1 KM BY MECH. TRANSPORT	Cum	2.00	54.35	108.70
100 MTRS BY HEAD LOAD	Cum	2.00	54.55	3.00
Carriage of Gabion structure	L.S.			3.00
LABOUR	e 15	0.10	110 07	11.67
Mate.	Each	0.10	116.67	
Mason (for plain stone work) 2nd class	Each	0.50	158.67	79.34
Beldar	Each	1.50	116.67	175.01
				3328.71
Add 1 % Water charges				33.29
				3361.99
Add 10 % Contractor's profit.				336.20
Add 5 % overheads				168.10
Cost of 2 cum				3866.29
Cost of 1 cum				1933.15
		Say Rs.	1933.10	Per cum
LABOUR :				
Mate.	Each	0.10	116.67	11.67
Mason (for plain stone work) 2nd class	Each	0.50	158.67	79.34
Beldar	Each	1.50	116.67	175.01
TOTAL :				266.01
ADD FOR WATER CHARGES @ 1% :				2.66
TOTAL :				268.67
Add 10 % Contractor's profit.				26.87
Add 5 % overheads				13.43
Labour for 2 cum				308.97
Labour per cum				154.48
0		Say Rs	. 154.50 pe	er cum
Y · · · · ·			~	
			-	2

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type $10x12(D=100 \text{ mm with tolerance of } \pm 2\%)$ Zinc+PVC coated, Mesh wire diameter2.7/3.7mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/ 3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in- charge.

Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum MATERIAL

	ade of Mesh type 10x12 (D=100 mm) Zn+PV0	2				
	1esh wire diameter 2.70/3.70 mm (ID/OD).	Sam	11.00	220	2420.00	
	rea required = 11.00 sqm ulder with least dimension 200mm	Sqm Cum	11.00	300	600.00	
CARRIAG		Cull	2.00	500	000.00	
	one and filling crate					
-	MECH. TRANSPORT	Cum	2.00	130.50	261.00	
	S BY HEAD LOAD	Cum	2.00	54.35	108.70	
	of Gabion structure	L.S.	2.00	54.55	3.00	
LABOUR	of Gabion structure	L.3.			5.00	
		Each	0.10	116.67	11.67	
Mate	ar plain stand work) and place	Each	0.10	158.67	79.34	
Beldar	or plain stone work) 2nd class		1.50	116.67		
Beldar		Each	1.50	110.07	175.01	
0 -1 -1 -1 -0 ()	Material Science				3658.71 36.59	
Add 1 %	Water charges					
4-1-1-10-0/	Contractor do profit				3695.29 369.53	
	6 Contractor's profit				184.76	
	overheads				terve working the	-
Cost of 2					4249.59	
Cost of 1	cum		C D		2124.79	
			Say Rs.	2124.80	Per cum	
LABOUR	•	Feeb	0.10	110 07	11 67	
Mate.	in a later strength and share	Each	0.10	116.67	11.67	
Com 100 CPC	or plain stone work) 2nd class	Each Each	0.50	158.67	79.34	
Beldar		Each	1.50	116.67	175.01	-
TOTAL :					266.01	
	R WATER CHARGES @ 1% :				2.66	-
TOTAL :					268.67	
	6 Contractor's profit.				26.87	
	overheads				13.43	
Labour fo	The cost of the second s				308.97	
Labour p	er cum		Cour Do	154 50	154.48	
0	1		Say Ks.	154.50 per	cum	

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engiñeer (QC & D) HP.PWD. U.S. Club Shimla-1.

day

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of $\pm 2\%$), Zinc+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer- incharge.

3190.00

600.00

261.00

108.70

3.00

11.67

79.34

175.01

4428.71 44.29

4472.99 447.30

223.65

5143.94

2571.97

Sav Rs. 2572.00 Per cum

Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum MATERIAL

Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/3.70 Surface area required = 11.00 mm (ID/OD) Sqm 11.00 290.00 sqm. 300.00 Stone boulder with least dimension 200mm Cum 2.00 CARRIAGE : Soling stone and filling crate Cum 2.00 130.50 1 KM BY MECH. TRANSPORT Cum 2.00 54.35 100 MTRS BY HEAD LOAD L.S. Carriage of Gabion structure LABOUR Each 0.10 116.67 Mate 158.67 Each 0.50 Mason (for plain stone work) 2nd class Each 1.50 116.67 Beldar Add 1 % Water charges Add 10 % Contractor's profit Add 5 % overheads

Cost of 2 cum Cost of 1 cum

		Juy no.	20/2.00	i ci cuin
LABOUR :				
Mate.	Each	0.10	116.67	11.67
Mason (for plain stone work) 2nd class	Each	0.50	158.67	79.34
Beldar	Each	1.50	116.67	175.01
TOTAL :				266.01
ADD FOR WATER CHARGES @ 1% :				2.66
TOTAL :				268.67
Add 10 % Contractor's profit				26.87
Add 5 % overheads				13.43
Labour for 2 cum				308.97
Labour per cum				154.48
NULKEE BY TROPEN LIKES		Say Rs.	154.50 pe	r cum

19490000

Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Details of Cost for 300 Sqm MATERIAL Bi-Axial Extruded GeoGrids of Minimum Tensile Strength				
15 kN/m in the longitudinal and transverse direction Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie- strips, nuts and bolts and loops / lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of	Sqm	300.00	95.00	28500.00
28500=2850				2850.00
LABOUR				
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
Add Water shares Q 10/				32442.03
Add Water charges @ 1%				324.42
Add Contractor's and it @ 100/				32766.45
Add Contractor's profit @ 10% Add overheads @ 5%				3276.645
Cost for 300 Sqm				1638.32
Cost per Sqm				37681.42
cost per squi		C D		125.6047
LABOUR :		Say Ks.	125.60 Pe	er sqm
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	42.00 700.02
Skilled Beldar	Each	3.00	116.67	350.01
TOTAL :	Eden	5.00	110.07	1092.03
ADD FOR WATER CHARGES @ 1% :				10.92.03
TOTAL :				1102.95
Add Contractor's profit @ 10%				1102.35
Add overheads @ 5%				55.15
Labour for 300 Sqm				1268.39
Labour per Sqm				4.23
N N		Say Rs. :	154.50 pe	
			-	
laray		~	4	•
Engineer (QC & D) Executive Engineer (QC & D) Sur	perinten	iding Engin	ieerfac &	D)

Engineer in Chief (Project) HP.PWD. U.S. Club Shimla-1.

Assistant Er

Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Details of Cost for 300	Sqm						
MATERIAL							
	Grids of Minimum Tensile Strength dinal and transverse direction						
		Sqm	300.00	109.00	32700.00		
(synthetic geogrids) for strips, nuts and bo reinforcing elements other protective elem	the cost of reinforcing elements or wastage and accessories like tie- lts and loops / lugs for joining with the facia panels, overlaps and nents for synthetic geogrids and all						
respect including ta	ired to complete the item in all axes and transportation. 10% of						
327000=3270					3270.00		
LABOUR	*.						
Mate		Each	0.36	116.67	42.00		
Beldar		Each	6.00	116.67	700.02		
Skilled Beldar		Each	3.00	116.67	350.01		
					37062.03		
Add Water charges @	1%				370.62		
					37432.65		
Add Contractor's prof	it @ 10%				3743.265		
Add overheads @ 5%					1871.63		
Cost for 300 Sqm					43047.55		
Cost per Sqm					143.4918		
			Say Rs.	143.50 Pe	Per sqm		
LABOUR :							
Mate		Each	0.36	116.67	42.00		
Beldar		Each	6.00	116.67	700.02		
Skilled Beldar		Each	3.00	116.67	350.01		
TOTAL :					1092.03		
ADD FOR WATER CHA	RGES @ 1% :				10.92		
TOTAL :					1102.95		
Add Contractor's prof	it @ 10%				110.30		
Add overheads @ 5%					55.15		
Labour for 300 Sqm					1268.39		
abour per Sqm					4.23		
	1		Say Rs.	4.25 per s	sqm		
٨]			K			
- Process	Executive Engineer (QC & D)		-	T	-		
Engineer (QC & D)	Executive Engineer (QC & D)	Su	perintendi	ng Enginee	er (QC & D)		

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

> Engineer in Chief (Project) HP.PWD. U.S. Club Shimla-1.

HP.PWD. U.S. Club Shimla-1.

ANALYSIS OF RATE

Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5 kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Details of Cost for 300 Sqm

MATERIAL

Bi-Axial Extruded GeoGrids of Minimum Tensile Strength				
Sokiv/m in the longitudinal and transverse direction	Cam	300.00	178.00	53400.00
Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-				
scrips, nuts and polts and loops/lugs for joining reinforcing				
elements with the facia panels, overlaps and other				
protective elements for synthetic geogrids and all other				
activities required to complete the item in all respect				
including taxes and transportation. 10% of 53400=5340 LABOUR				5340.00
Mate	•			
Beldar	Each	0.36	116.67	42.00
Skilled Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
Add Water charges @ 1%				59832.03
Aud Water charges @ 1%				598.32
Add Contractor's profit @ 10%				60430.35
Add overheads @ 5%				6043.035
Cost for 300 Sqm				3021.52
Cost per Sqm				69494.90
				231.6497
LABOUR :	Say Rs	. 231.60 F	er sqm	
Mate	F 1			
Beldar	Each	0.36	116.67	42.00
Skilled Beldar	Each	6.00	116.67	700.02
TOTAL :	Each	3.00	116.67 _	350.01
ADD FOR WATER CHARGES @ 1% :				1092.03
TOTAL :			-	10.92
Add Contractor's profit @ 10%				1102.95
Add overheads @ 5%				110.30
Labour for 300 Sqm				55.15
Labour per Sqm				1268.39
		Sou De 1	25	4.23
		Say Rs. 4.	25 per sq	m

Assistant Engineer (QC & D)

aly Executive Engineer (QC & D)

Superintending Engineer (QC & D)

Supplying & laying of bi-axial extruded high modulus polypropylene geogrid for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.
Details of Cost for 300 Sqm

MATERIAL

Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie- strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of 78000=7800	Sqm	300.00	260.00	78000.00
LABOUR				7800.00

CABOON				
Mate	Fach	0.26	110 07	
Beldar	Each	0.36	116.67	42.00
Skilled Beldar	Each	6.00	116.67	700.02
	Each	3.00	116.67	350.01
Add Water charges @ 1%				86892.03
in a contraction of an a get a state of a st				868.92
Add Contractor's profit @ 10%				87760.95
Add overheads @ 5%				8776.095
Cost for 300 Sqm				4388.05
Cost per Sqm				100925.09
cost per squi				336.417
LABOUR :		Say Rs.	336.40 Pe	er sqm
Mate	5 -1			
Beldar	Each	0.36	116.67	42.00
Skilled Beldar	Each	6.00	116.67	700.02
TOTAL :	Each	3.00	116.67	350.01
ADD FOR WATER CHARGES @ 1% :				1092.03
TOTAL :				10.92
Add Contractor's profit @ 10%				1102.95
Add overheads @ 5%				110.30
Labour for 300 Sqm				55.15
Labour per Sqm				1268.39
Labour per squit				4.23
		Say Rs.	4.25 per so	qm

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Superintending Epgineer (QC & D) HP.PWD. U.S. Club Shimla-1.

ANALYSIS OF RATE

Supplying & laying of drainage composite for use behind walls, between two different fills, along side-drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermo bonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm characteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m, with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.

Details of Cost for 300 Sqm

MATERIAL

	Geosynthetic Drainage Composite Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia panels, overlaps, and other protection of the synthetic	Sqm	300.00	504.00	151200.00
	panels, overlaps and other protective elements for synthetic Composites and other miscellaneous activities required to complete the item in all respect including				
	transportation & takes. 10% of 151200=15120				15120.00
	LABOUR				13120.00
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	Add Mater also a set				167412.03
	Add Water charges @ 1%				1674.12
	Add Contractor's profit @ 10%				169086.15
	Add overheads @ 5%				16908.62
	Cost for 300 Sqm				8454.31
	Cost per Sqm				194449.07
	eost per sum				648.16
	LABOUR :		Say Rs. 6	48.20 Per	sqm
	Mate	-			
	Beldar	Each	0.36	116.67	42.00
	Skilled Beldar	Each	6.00	116.67	700.02
8	TOTAL :	Each	3.00	116.67	350.01
	ADD FOR WATER CHARGES @ 1% :				1092.03
5	TOTAL :				10.92
1	Add Contractor's profit @ 10%				1102.95
1	Add overheads @ 5%				110.30
	abour for 300 Sgm			<u>11</u>	55.15
	abour per Sqm				1268.39
					4.23
			Say Rs. 4.	25 per sai	m

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Say Rs. 4.25 per sqm

Superintending Engineer (QC & D) HP.PWD. U.S. ClubShimla-1.

ANALYSIS OF RATE

Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermo bonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 gsm and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m, with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer -in - Charge.

MATERIAL

	Geosynthetic Drainage Composite Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composites and other miscellaneous activities required to complete the item in all respect including	Sqm	300.00	600.00	180000.00
	transportation & takes. 10% of 180000=18000				18000.00
	LABOUR				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					199092.03
	Add Water charges @ 1%				1990.92
					201082.95
	Add Contractor's profit @ 10%				20108.3
	Add overheads @ 5%				10054.15
	Cost for 300 Sqm				231245.39
	Cost per Sqm				770.82
	1120110		Say Rs. 7	70.80 Pe	r sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
0	Labour per Sqm				4.23
Å	levery		د Say Rs. 4	.25 per so	

Assistant Rogineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D)

19550000	reinforcement as per MORTH 3100 and IRC 113, made o polyethylene coating with minimum Long Term Design Str	f high rength	tenacity (LTDS) of	polyester	core with	
19550100	Ultimate tensile strength- 100 kN/m Details of Cost for 300 Sqm					
	MATERIAL Synthetic Geogrid Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie- strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other	Sqm	300.00	200.00	60000.00	
	activities required to complete the item in all respect including taxes and transportation. 10% of 60000=6000				6000.00	
	LABOUR			445 57		
	Mate Beldar		0.36	116.67	42.00	
			6.00	116.67	700.02	
	Skilled Beldar	Each	3.00	116.67	350.01	
	Add Water charges @ 1%				67092.03	
	Add Water charges @ 1%				670.92	
	Add Contractor's profit @ 10%				67762.95	
					6776.295	
					3388.15	
					77927.39	
	cost per squi	Cour D	- 250.00	Deve	259.76	
	LABOUR :	Say к	s. 259.80	Per sqm		
	Mate	Fach	0.20	116.67	42.00	
	Beldar		0.36		42.00	
	Skilled Beldar		3.00	116.67	700.02	
	TOTAL :	EdCh	5.00	116.67	350.01	
					1092.03	
	TOTAL :				10.92	
					1102.95	
					110.30 55.15	
					1268.39	
	Labour per Sgm				4.23	
	Ills of Cost for 300 Sqm ERIAL hetic Geogrid Sqm 10 per cent of the cost of reinforcing elements thetic geogrids) for wastage and accessories like tie- s, nuts and bolts and loops/lugs for joining reinforcing ients with the facia panels, overlaps and other ective elements for synthetic geogrids and all other ities required to complete the item in all respect ding taxes and transportation. 10% of 60000=6000 DUR e Each ar Each Water charges @ 1% Contractor's profit @ 10% overheads @ 5% for 300 Sqm per Sqm DUR : e Each ar Each ar Each ar Each AL : FOR WATER CHARGES @ 1% : AL : Contractor's profit @ 10% overheads @ 5% for 300 Sqm per Sqm L : Contractor's profit @ 10% overheads @ 5% for 300 Sqm pur for 300 Sqm pur for 300 Sqm pur per Sqm	4.23 Say Rs. 4.25 per sqm				
	}		Jay NS.	4.25 per s	y III	
	10		+	-		
AssistantEr	Executive Engineer (QC & D)	SL	perintend	ng Epgine	er (QC & D)	

.

Assistant Engineer (QC & D) Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1 HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

÷.,	19550200	Ultimate tensile strength- 150 kN/m				
		Details of Cost for 300 Sqm				
		MATERIAL				
		Synthetic Geogrid	Sqm	300.00	220.00	66000.00
		Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item			220.00	0000.00
		in all respect including taxes and transportation. 10%				
		of 66000=6600 LABOUR				6600.00
		Mate				
		Beldar	Each	0.36	116.67	42.00
		Skilled Beldar	Each	6.00	116.67	700.02
		Skilled Deldal	Each	3.00	116.67	350.01
		Add Water charges @ 1%				73692.03
		Ned Water endiges @ 1/0				736.92
		Add Contractor's profit @ 10%				74428.95
		Add overheads @ 5%				7442.895
		Cost for 300 Sqm				3721.45
		Cost per Sqm				85593.29
			Sav Re	285.30 Pe		285.31
		LABOUR :	Say NS.	205.50 Pe	rsqm	
		Mate	Each	0.36	116.67	42.00
		Beldar	Each	6.00	116.67	700.02
		Skilled Beldar	Each	3.00	116.67	350.01
		TOTAL :		0100	110.07	1092.03
		ADD FOR WATER CHARGES @ 1% :				10.92
		TOTAL :				1102.95
		Add Contractor's profit @ 10%				110.30
		Add overheads @ 5%				55.15
		Labour for 300 Sqm				1268.39
		Labour per Sqm				4.23
				Say Rs. 4	.25 per sq	
		X			~	
	Assistant En	Executive Engineer (QC & D)	1.004	•	-	
		gibeer (QC & D) Executive Engineer (QC & D) Club Shimla-1. HP.PWD. U.S. Club Shimla-1.			ling Enginee S. Club Shin	
					S. Clud Sinni	nu-1,

Ultimate tensile strength- 200 kN/m Details of Cost for 300 Sqm MATERIAL Synthetic Geogrid Sqm 300.00 90000.00 300.00 Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of 90000=9000

				9000.00
LABOUR				9000.00
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
		0.00	110.07	100092.03
Add Water charges @ 1%				100092.03
Add Contractor's profit @ 10%				101092.95
Add overheads @ 5%				10109.3
Cost for 300 Sqm		3		5054.65
Cost per Sqm				116256.89
				387.52
LABOUR :		Say Rs.	387.50 Per	sqm
Mate	Each	0.36	116.67	10.00
Beldar	Each	6.00		42.00
Skilled Beldar	Each		116.67	700.02
TOTAL :	Cach	3.00	116.67	350.01
ADD FOR WATER CHARGES @ 1% :				1092.03
TOTAL :				10.92
Add Contractor's profit @ 10%				1102.95
Add overheads @ 5%				110.30
				55.15
Labour for 300 Sqm				1268.39
Labour per Sqm				4.23
		Say Rs. 4	1.25 per sai	n

Say Rs. 4.25 per sqm

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

ey

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

19550400	Ultimate tensile strength- 250 kN/m				
	Details of Cost for 300 Sqm				
	MATERIAL				
	Synthetic Geogrid	Sqm	300.00	330.00	99000.00
	Add 10 per cent of the cost of reinforcing elements				
	(synthetic geogrids) for wastage and accessories like				
	tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps				
	and other protective elements for synthetic geogrids				
	and all other activities required to complete the item				
	in all respect including taxes and transportation. 10%				
	of 99000=9900				9900.00
	LABOUR				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					109992.03
	Add Water charges @ 1%				1099.92
					111091.95
	Add Contractor's profit @ 10%				11109.2
	Add overheads @ 5%				5554.60
	Cost for 300 Sqm				127755.74
	Cost per Sqm				425.85
	112010		Say Rs.	425.90	Per sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar Skilled Belder	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm				4.23
			Sau De A	2E	

Say Rs. 4.25 per sqm

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

à.

3

* s,

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Ultimate tensile strength- 300 kN/m Details of Cost for 300 Sqm				
MATERIAL				
Synthetic Geogrid	Sqm	300.00	350.00	105000.00
Add 10 per cent of the cost of reinforci	ng elements			
(synthetic geogrids) for wastage and acc	essories like			
tie-string nuts and bolts and loops/lug	s for joining			
reinforcing elements with the facia pan	els, overlaps			
and other protective elements for synth and all other activities required to comp	lete the item			
in all respect including taxes and transpo	ortation. 10%			
of 105000 = 10500				10500.00
LABOUR				
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
				116592.03
Add Water charges @ 1%				1165.92
			52	117757.95 11775.8
Add Contractor's profit @ 10%				5887.90
Add overheads @ 5%				135421.64
Cost for 300 Sqm				451.41
Cost per Sqm		Cour De	451.40	Per sqm
		Say Rs.	431.40	i ci sqiii
LABOUR :	Each	0.36	116.67	42.00
Mate	Each		116.67	700.02
Beldar	Each		116.67	350.01
Skilled Beldar	Luci	9.00		1092.03
TOTAL :				10.92
ADD FOR WATER CHARGES @ 1% :				1102.95
TOTAL :				110.30
Add Contractor's profit @ 10% Add overheads @ 5%				55.15
Labour for 300 Sqm				1268.39
Labour per Sqm				4.23
		Say R	s. 4.25 per	sqm
			+	
ley	100 8 0	Superin	tending Eng	, jineer (Qc & D)
ant Engineer (QC & D) Executive Engineer	Shimla-1.	HP.PWI	D. U.S. Club	Shimla-1.
D. U.S. Club Shimla-1. HP.PWD. U.S. Club				

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

19550600	Ultimate tensile strength- 350 kN/m Details of Cost for 300 Sqm				
	MATERIAL				
	Synthetic Geogrid	Sqm	300.00	390.00	117000.00
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like				
	tie-strips, nuts and bolts and loops/lugs for joining				
	reinforcing elements with the facia panels, overlaps				
	and other protective elements for synthetic geogrids				
	and all other activities required to complete the item				
	in all respect including taxes and transportation. 10% of 117000 =11700				44700.00
					11700.00
	LABOUR	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	Skilled beldar	Laci	5.00	110.07	129792.03
	Add Water charges @ 1%				1297.92
					131089.95
	Add Contractor's profit @ 10%				13109
	Add overheads @ 5%				6554.50
	Cost for 300 Sqm				150753.44
	Cost per Sqm				502.51
			Say Rs.	502.50	Per sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm				4.23
	V		Say Rs.	4.25 per so	ղո
	A			¥	
Assistant					10 0 01

, ,

÷ 4,

Assistant Engineer (QC & D)Executive Engineer (QC & D)HP.PWD, U.S. Club Shimla-1.HP.PWD, U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Chib Shimla-1.

13	9	5	5	0	7	00	
	-	-	_		÷.,	~ ~	

Ultimate tensile strength- 400 kN/m

Details of Cost for 300 Sqm

MATERIAL

Synthetic Geogrid	Sam	300.00	420.00	126000.00	
Add 10 per cent of the cost of reinforcing elements	- 4		.20.00	120000.00	
(synthetic geogrids) for wastage and accessories like					
tie-strips, nuts and bolts and loops/lugs for joining					
reinforcing elements with the facia panels, overlaps					
and other protective elements for synthetic geogrids					
and all other activities required to complete the item					
in all respect including taxes and transportation. 10%					
of 126000 =12600				12600.00	
LABOUR				12000.00	

LABOUR				
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
				139692.03
Add Water charges @ 1%				1396.92
				141088.95
Add Contractor's profit @ 10%				14108.9
Add overheads @ 5%				7054.45
Cost for 300 Sqm				162252.29
Cost per Sqm				540.84
		Say Rs.	540.80	Per sqm
LABOUR :				
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
TOTAL :				1092.03
ADD FOR WATER CHARGES @ 1% :				10.92
TOTAL :				1102.95
Add Contractor's profit @ 10%				110.30
Add overheads @ 5%				55.15
abour for 300 Sqm				1268.39
abour per Sqm				4.23
		Say Rs. 4	1.25 per sq	m

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Club Shimla-1.

°19550800	Ultimate tensile strength- 500 kN/m Details of Cost for 300 Sqm MATERIAL				
	Synthetic Geogrid Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids	Sqm	300.00	500.00	150000.00
	and all other activities required to complete the item				
	in all respect including taxes and transportation. 10% of 150000 = 15000				15000.00
	LABOUR				13000.00
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					166092.03
	Add Water charges @ 1%				1660.92
					167752.95
	Add Contractor's profit @ 10%				16775.3
	Add overheads @ 5%				8387.65
	Cost for 300 Sqm				192915.89
	Cost per Sqm				643.05
			Say Rs.	643.10	Per sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Cost for 300 Sqm				1268.39
	Cost per Sqm				4.23
	X		Say Rs. 4	.25 per sq	m

Assistant Engineer (QC & D) Executive Engineer (QC & D) HP.PWD. U.S. Gub Shimla-1. HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Club Shimla-1.

19550900	Ultimate tensile strength- 600 kN/m				
	Details of Cost for 300 Sqm				
	MATERIAL				
	Synthetic Geogrid	Sqm	300.00	550.00	165000.00
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps	3qm	500.00	550.00	105000.00
	and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10%				
	of 165000 =16500				16500.00
	LABOUR Mate	-		445.55	
	Beldar	Each	0.36	116.67	42.00
	Skilled Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	Add Water charges @ 1%				182592.03
	Add Water charges @ 1%				1825.92
	Add Contractor's profit @ 10%				184417.95
	Add overheads @ 5%				18441.8
	Cost for 300 Sqm				9220.90
	Cost per Sqm				212080.64
	cost per squi				706.94
	LABOUR :		Say Rs.	706.90	Per sqm
ф. 1	Mate	Each	0.36	116.67	12.00
	Beldar	Each	6.00		42.00
	Skilled Beldar	Each	3.00	116.67 116.67	700.02
	TOTAL :	Lacii	5.00	110.07	350.01
	ADD FOR WATER CHARGES @ 1% :				1092.03
	TOTAL :				10.92
	Add Contractor's profit @ 10%				1102.95
	Add overheads @ 5%				110.30
	Labour for 300 Sgm				55.15
	Labour per Sqm				1268.39 4.23
	1		Say Re /	1.25 per sc	
	1		July 115. 4	.25 per su	hu
				1	

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

19551000	Ultimate tensile strength- 700 kN/m				
	Details of Cost for 300 Sqm				
	MATERIAL				
	Synthetic Geogrid	Sqm	300.00	650.00	195000.00
	Add 10 per cent of the cost of reinforcing elements				
	(synthetic geogrids) for wastage and accessories like				
	tie-strips, nuts and bolts and loops/lugs for joining				
	reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids				
	and all other activities required to complete the item				
	in all respect including taxes and transportation. 10%				
	of 195000 =19500				19500.00
	LABOUR				1000000
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					215592.03
	Add Water charges @ 1%				2155.92
					217747.95
	Add Contractor's profit @ 10%				21774.8
	Add overheads @ 5%				10887.40
	Cost for 300 Sqm				250410.14
	Cost per Sqm				834.70
			Say Rs.	834.70	Per sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm				4.23
			Say Rs. 4	1.25 per so	m

Say Rs. 4.25 per sqm

Assistant Engineer (QC & D) HP.PWD. U.S. Cub Shimla-1. Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Superintending Engineer (Qc & D) HP.PWD. U.S. Club Shimla-1.

19551100	Ultimate tensile strength- 800 kN/m Details of Cost for 300 Sqm MATERIAL Synthetic Geogrid Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlap and other protective elements for synthetic geogrid and all other activities required to complete the iter in all respect including taxes and transportation. 109 of 212400 =21240	s s n	300.00	708.00	212400.00 21240.00
	LABOUR	Each	0.36	116.67	42.00
	Mate	Each	6.00	116.67	700.02
	Beldar	Each	3.00	116.67	350.01
	Skilled Beldar	Each	5.00		234732.03
					2347.32
	Add Water charges @ 1%				237079.35
					23707.94
	Add Contractor's profit @ 10%				11853.97
	Add overheads @ 5%				272641.25
	Cost for 300 Sqm				908.80
	Cost per Sqm		Say Rs.	908.80	Per sqm
	LABOUR :	Each	0.36	116.67	42.00
	Mate	Eacl		116.67	
	Beldar	Eac		116.67	
	Skilled Beldar	Edu			1092.03
	TOTAL :				10.92
	ADD FOR WATER CHARGES @ 1% :				1102.95
	TOTAL :				110.30
	Add Contractor's profit @ 10%				55.15
	Add overheads @ 5%				1268.39
	Labour for 300 Sqm				4.23
	Labour per Sqm		Say F	Rs. 4.25 pe	rsqm

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Superintending Engineer (QC & D) HP.PWD. U.S. Cub Shimla-1.

19551200	Ultimate tensile strength, 000 kM/m				
19551200	Ultimate tensile strength- 900 kN/m Details of Cost for 300 Sqm				
	MATERIAL				
	Synthetic Geogrid	Sqm	300.00	841.00	252300.00
	Add 10 per cent of the cost of reinforcing elements	Sym	500.00	841.00	232300.00
	(synthetic geogrids) for wastage and accessories like				
	tie-strips, nuts and bolts and loops/lugs for joining				
	reinforcing elements with the facia panels, overlaps				
	and other protective elements for synthetic geogrids and all other activities required to complete the item				
	in all respect including taxes and transportation. 10%				
	of 252300 =25230				25230.00
	LABOUR				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					278622.03
	Add Water charges @ 1%				2786.22
					281408.25
	Add Contractor's profit @ 10%				28140.83
	Add overheads @ 5%				14070.41
	Cost for 300 Sqm				323619.49
	Cost per Sqm				1078.73
			Say Rs.	1078.70	Per sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm		Cour De	1 25 00000	4.23
			Say RS.	4.25 per so	4111

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Club Shimla-1.

19551300	Ultimate tensile strength- 1000 k Details of Cost for 300 Sqm MATERIAL	N/m			
	Synthetic Geogrid Add 10 per cent of the cost of (synthetic geogrids) for wastage tie-strips, nuts and bolts and I reinforcing elements with the fa and other protective elements	and accessories like oops/lugs for joining icia pannels, overlaps or synthetic geogrids	n 300.00	950.00	285000.00
	and all other activities required in all respect including taxes and				
	of 285000 =28500				28500.00
	LABOUR				
	Mate	Eac	h 0.36	116.67	42.00
	Beldar	Eac	h 6.00	116.67	700.02
	Skilled Beldar	Eac	h 3.00	116.67	350.01
					314592.03
	Add Water charges @ 1%				3145.92
					317737.95
	Add Contractor's profit @ 10%				31773.8
	Add overheads @ 5%				15886.90
	Cost for 300 Sqm				365398.64
	Cost per Sqm				1218.00
			Say Rs.	1218.00	Per sqm
	LABOUR :				
	Mate	Eac	h 0.36	116.67	42.00
	Beldar	Eac	h 6.00	116.67	700.02
	Skilled Beldar	Eac	h 3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1%	:			10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm				4.23
			Say Rs.	4.25 per sq	
	()				

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1. Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Cub Shimla-1.

Engineer in Chief (Project) HP.PWD. U.S. Club Shimla-1.

1

19551400	1114 merete de la 11 de la constante de la constan				
19991400	Ultimate tensile strength- 1100 kN/m				
	Details of Cost for 300 Sqm				
	MATERIAL Synthetic Geogrid				
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item	Sqm	300.00	1000.00	300000.00
	in all respect including taxes and transportation. 10%				
	of 300000 = 30000				30000.00
	LABOUR				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
					331092.03
	Add Water charges @ 1%				3310.92
					334402.95
	Add Contractor's profit @ 10%				33440.3
	Add overheads @ 5%				16720.15
	Cost for 300 Sqm				384563.39
	Cost per Sqm				1281.88
	1420112		Say Rs. 1	281.90 Per	sqm
	LABOUR :				
	Mate	Each	0.36	116.67	42.00
	Beldar	Each	6.00	116.67	700.02
	Skilled Beldar	Each	3.00	116.67	350.01
	TOTAL :				1092.03
	ADD FOR WATER CHARGES @ 1% :				10.92
	TOTAL :				1102.95
	Add Contractor's profit @ 10%				110.30
	Add overheads @ 5%				55.15
	Labour for 300 Sqm				1268.39
	Labour per Sqm				4.23
			Say Rs. 4.	.25 per sqn	

Assistant Engliner (QC & D) /HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (Qc & D) HP.PWD. U.S. Club Shimla-1.

Synthetic Geogrid Add 10 per cent of the cost of reinforce (synthetic geogrids) for wastage and acc tie-strips, nuts and bolts and loops/lug reinforcing elements with the facia pan and other protective elements for synth	cessories like s for joining	300.00	1088.00	326400.00
and all other activities required to compl in all respect including taxes and transpo	etic geogrids lete the item			
of 326400 =32640				32640.00
LABOUR				
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
				360132.03
Add Water charges @ 1%				3601.32
				363733.35
Add Contractor's profit @ 10%				36373.34
Add overheads @ 5%				18186.67
Cost for 300 Sqm				418293.35
Cost per Sqm				1394.31
		Say Rs. 1	394.30 Per	
LABOUR :				- 1
Mate	Each	0.36	116.67	42.00
Beldar	Each	6.00	116.67	700.02
Skilled Beldar	Each	3.00	116.67	350.01
TOTAL :				1092.03
ADD FOR WATER CHARGES @ 1% :				10.92
TOTAL :			1.1	1102.95
Add Contractor's profit @ 10%				1102.95
Add overheads @ 5%				55.15
Labour for 300 Sgm			-	
Labour per Sqm				1268.39 4.23
		Sav Rs. 4	25 per sqn	

Assistant Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Executive Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.

Superintending Engineer (QC & D) HP.PWD. U.S. Club Shimla-1.