

VISWA CONSULT (P) LTD.

Dillibazar, Kathmandu

P.O. Box. - 4316, Kathmandu

Tel.: 977-1-4433156 Fax No.: 977-01-4433359

Email : viswaconsultlab@gmail.com

LAB UNIT

COMPRESSIVE STRENGTH TEST OF CONCRETE CUBES

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Temperature: 16°C

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Humidity: 32%

Aggregate Source: Thulo Khola

Weather: Haze

Sand Source: Santibazar Crusher

Time of Mix: 16:35 PM

Cement: United OPC

Admixture Used: Cretoplast 1303 (0.7% by wt. of cement)

Grade: M25/20

Mortar Cube No.		1	2	3
Date of Casting		2077.09.13		
Date of Testing		2077.10.12		
Age of Cubes	days	28		
Length of Cube	cm	15.0	15.0	15.0
Breadth of Cube	cm	15.0	15.0	15.0
Height of Cube	cm	15.0	15.0	15.0
Weight of Cubes	gm	82256.00	8298.00	8314.00
Volume of Cubes	cm ³	3375.00	3375.00	3375.00
Density	gm/cm ³	24.37	2.46	2.46
Slump	cm	10.00		
Compressive Load	KN	950.00	975.00	1000.00
	kg	96938.78	99489.80	102040.82
Area of Cubes	cm ²	225.00	225.00	225.00
Compressive Strength	kg/cm ²	430.84	442.18	453.51
	N/mm ²	42.22	43.33	44.44
Average	kg/cm ²	442.18		
	N/mm ²	43.3		

Remarks:

Tested by:



Checked by:



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Tel:4433156 Email:viswaconsultlab@gmail.com

Date : 2077.09.13

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M30/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 15:30 PM

Type of Aggregate : Crushed

Cement Brand : Jagdamba OPC

Weather : Haze

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 39%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	37.349	%
3. cement =	410.00	kg/M ³
4. Total absolute volume of aggregate =	0.720	M ³
5. Absolute volume of fine aggregate =	0.27	M ³
6. Absolute volume of coarse aggregate =	0.45	M ³
7. Water =	169	lit.
8. Water Cement Ratio =	0.412	
9. Slump =	130	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	2.041	3.423
b. Mix Proportion by Mass :	1.000	1.717	2.869

Samples were provided by Contractor. If it is found that the design is manipulated for whatever reasons, we shall not be responsible.



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Date : 2077.09.15

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M30/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 16:00 PM

Type of Aggregate : Crushed

Cement Brand : Shivam OPC

Weather : Partly sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 45%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition		
2. Proportion of fine to mixed aggregate =	37.349	%
3. cement =	415.00	kg/M ³
4. Total absolute volume of aggregate =	0.718	M ³
5. Absolute volume of fine aggregate =	0.27	M ³
6. Absolute volume of coarse aggregate =	0.45	M ³
7. Water =	150	lit.
8. Water Cement Ratio =	0.361	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	1.969	3.302
b. Mix Proportion by Mass :	1.000	1.692	2.829

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Date : 2077.09.05

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M35/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 15:40 PM

Type of Aggregate : Crushed

Cement Brand : Jagdamba OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 51%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	37.340	%
3. cement =	460.00	kg/M ³
4. Total absolute volume of aggregate =	0.688	M ³
5. Absolute volume of fine aggregate =	0.26	M ³
6. Absolute volume of coarse aggregate =	0.43	M ³
7. Water =	165	lit.
8. Water Cement Ratio =	0.359	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	1.741	2.920
b. Mix Proportion by Mass :	1.000	1.465	2.448

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Date : 2077.09.06

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M35/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 15:30 PM

Type of Aggregate : Crushed

Cement Brand : Shivam OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 42%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	36.071	%
3. cement =	467.00	kg/M ³
4. Total absolute volume of aggregate =	0.687	M ³
5. Absolute volume of fine aggregate =	0.25	M ³
6. Absolute volume of coarse aggregate =	0.44	M ³
7. Water =	165	lit.
8. Water Cement Ratio =	0.353	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	1.651	2.926
b. Mix Proportion by Mass :	1.000	1.389	2.453

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Date : 2077.09.08

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M35/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 16:00 PM

Type of Aggregate : Crushed

Cement Brand : Sarbottam OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 48%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	36.071	%
3. cement =	475.00	kg/M ³
4. Total absolute volume of aggregate =	0.684	M ³
5. Absolute volume of fine aggregate =	0.25	M ³
6. Absolute volume of coarse aggregate =	0.44	M ³
7. Water =	188	lit.
8. Water Cement Ratio =	0.395	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	1.580	2.799
b. Mix Proportion by Mass :	1.000	1.360	2.403

Samples were provided by Contractor. If it is found that the design is manipulated for whatever reasons, we shall not be responsible.



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Date : 2077.09.08

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M25/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 15:00 PM

Type of Aggregate : Crushed

Cement Brand : Sarbottam OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 34%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	37.349	%
3. cement =	400.00	kg/M ³
4. Total absolute volume of aggregate =	0.733	M ³
5. Absolute volume of fine aggregate =	0.27	M ³
6. Absolute volume of coarse aggregate =	0.46	M ³
7. Water =	140	lit.
8. Water Cement Ratio =	0.350	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	2.081	3.490
b. Mix Proportion by Mass :	1.000	1.792	2.995

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Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M25/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 16:35 PM

Type of Aggregate : Crushed

Cement Brand : United OPC

Weather : Haze

Water used : Tap water

Air Temperature : 16.0 °C Humidity = 32%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	39.906	%
3. cement =	419.00	kg/M ³
4. Total absolute volume of aggregate =	0.717	M ³
5. Absolute volume of fine aggregate =	0.29	M ³
6. Absolute volume of coarse aggregate =	0.43	M ³
7. Water =	150	lit.
8. Water Cement Ratio =	0.358	
9. Slump =	120	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	2.124	3.198
b. Mix Proportion by Mass :	1.000	1.788	2.683

Samples were provided by Contractor. If it is found that the design is manipulated for whatever reasons, we shall not be responsible.

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Date : 2077.09.08

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M25/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 12:42 PM

Type of Aggregate : Crushed

Cement Brand : Shivam OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 34%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	38.628	%
3. cement =	395.00	kg/M ³
4. Total absolute volume of aggregate =	0.724	M ³
5. Absolute volume of fine aggregate =	0.28	M ³
6. Absolute volume of coarse aggregate =	0.44	M ³
7. Water =	150	lit.
8. Water Cement Ratio =	0.380	
9. Slump =	100	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	2.205	3.503
b. Mix Proportion by Mass :	1.000	1.855	2.937

Samples were provided by Contractor. If it is found that the design is manipulated for whatever reasons, we shall not be responsible.



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Date : 2077.09.05

Project: Galchhi- Trishuli- Mailung- Safrubesi- Rasuwagadhi Sadak Yojana

Client: Road Department, Bidur, Nuwakot

Contractor: Anjana/ RD/ RS JV

Contract No: GTMSRRP/337011094/076/77-002,003,004,005,006

Office Reg no: VC-D326

CEMENT CONCRETE MIX DESIGN TEST RESULTS FOR M25/20

Source of Sand : Santibazar Crusher

Source of Aggregate : Thulo Khola

Time of Mixing : 15:00 PM

Type of Aggregate : Crushed

Cement Brand : Jagdamba OPC

Weather : mostly Sunny

Water used : Tap water

Air Temperature : 17.0 °C Humidity = 51%

1. Sieve analysis Test Results

Sieve size mm	% passing	
	Aggregate	Sand
80	100	100
40	100	100
20	95.47	100
10	7.51	100
4.75	0.20	96.4
2.36	0.17	85.50
1.18	0.17	60.60
0.6	0.15	37.00
0.3	0.14	11.90
0.15	0.13	3.50

Coarse Aggregate and Fine aggregate all in air dry condition

2. Proportion of fine to mixed aggregate =	39.906	%
3. cement =	390.00	kg/M ³
4. Total absolute volume of aggregate =	0.726	M ³
5. Absolute volume of fine aggregate =	0.29	M ³
6. Absolute volume of coarse aggregate =	0.44	M ³
7. Water =	150	lit.
8. Water Cement Ratio =	0.385	
9. Slump =	100	MM

10. Mix Proportion :

	Cement	Sand	Aggregate
a. Mix proportion by volume :	1.000	2.312	3.482
b. Mix Proportion by Mass :	1.000	1.945	2.919

Samples were provided by Contractor. If it is found that the design is manipulated for whatever reasons, we shall not be responsible.

