NATIONAL HIGHWAY AUTHORITY
MINISTRY OF COMMUNICATIONS
GOVERNMENT OF PAKISTAN
ISLAMABAD

COMPOSITE SCHEDULE OF RATES

JANUARY 2009

(NWFP)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

FOREWARD

Following the increases in prices of materials and labour in the year 2008, the revision / updation of CSR has been carried out. In the year 2008 we have seen the prices of steel / diesel / bitumen go up considerably and towards the end of year have come down. Analysts are still uncertain with the prices in the year 2009. For the year 2009, we have carried out a general revision of all prices upto January 2009 in consultation with leading manufacturer's, supplier, and specialist contractors.

In the absence of standard fix formula the best engineering knowledge and rate analysis practices are used to develop these rates. The variation in the proposed rates is anticipated in certain cases, which may be due to varying degrees / levels of productivity and price differences of various inputs at the regional level.

The rates, prices and outputs included in the resources and unit cost calculations, including allowances for wastage, normal productivity and efficiency are based for roadwork and bridge projects being carried out by NHA. The unit rates are average unit rates for a particular district and not project specific. The market can change very rapidly, which would obviously have an impact on the unit rates.

It must be understood that main objective of the CSR is to provide a realistic reference base for preparing Cost Estimates / PC-I and Evaluation of Bids, for NHA projects.

My gratitude to The Chairman NHA, Member (Finance), Member (Operations), Member (Construction), Member (Motorway) and Member (Planning) without whose guidance and support it would have been difficult to develop this Document.

In the end, my appreciation to my team for all the possible technical and professional efforts to produce Revised Composite Schedule of Rates 2009.

It is hoped that the CSR 2009, would serve as a Basic Engineer's Estimate Reference Document for National Highway Authority, various Government Departments and the construction industry in general.

Whilst all efforts are made to ensure the accuracy of the data and information used in updating the CSR , neither NHA or M/s Shabir Associates can in any way accept liability for loss of any kind resulting from the use of CSR made by any person, institution, company, department etc.

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1. General

For many years National Highway Authority has been compiling / updating the Composite Schedule of Rates for use in the Civil Engineering Industry. The Civil Engineering Industry uses this Schedule of Rates for pricing work by the application of unit rates to the quantities measured from the designer's drawings. The main objective of the CSR is to provide a realistic reference base for cost estimates. One has to understand no two projects are the same, there are variables which effect the price of the project i.e., the volume of work below ground, embankment height, cut & fill, increased exposure to weather, and the tremendous variety of the projects, in terms of type, complexity and scale makes the straight forward use of unit rates less reliable. This uncertainty is compounded by the lower number of bill items generated in Civil Engineering Projects as compared to Building Works so that the precise nature of work is less apparent from bill descriptions and the statistical effect of 'swings and roundabout' has less scope to average out extremes of pricing.

To prepare a price for a Civil Engineering project, then, it is necessary to have regard to the method to be adopted in executing the work, draw up a detailed programme and then cost out the resources necessary to prosecute the chosen method. The first part of this process is the province of construction planner, there has been a tendency to postpone detailed estimating until the tendering stage itself, with the employer relying upto that point upon an estimate prepared on a 'broad brush' basis.

There is increasing growing pressure on the part of project sponsors for an improvement to budgetary advice, so that a decision to commit expenditure to a particular project is taken on firmer grounds. The absence of detailed price method during the pre-contract phase also inhibits the accurate costing of alternative designs and regular cost checking to ensure that the design is being developed within the employer's budget. The CSR gives unit rates for use when quantities can be taken from available drawings. To take some note of the range of unit rates that might apply to an item, the rates themselves are in some cases related to working method – for example by identifying the different types of plant that would suit varying circumstances. Nonetheless, it would be folly to propose that all types of Civil Engineering work could be covered by the use of CSR. While developing these unit rates, we had in mind the type and scale of work to be commissioned by NHA.

The CSR does embrace the great majority of work undertaken by NHA. Although almost all projects will have individual features that require careful attention in pricing, there will be some projects that are so specialist that they will not confirm to standard pricing information at all. But for most projects, within the range of work covered, this CSR should provide a firm foundation for:

Preparing Project Cost Estimate and PC-1

Evaluating Tender / Bids

Evaluating Claims and Variation Order

Arbitration Matters

In order to prepare an authentic Composite Schedule of Rates and to keep it effective, the basic requirements are as under:

- Collection of first hand, prudent and legitimate information for inputs (Manpower, Material & Equipment) in the rate analysis
- Merging the above information in proper proportion according to Design Specifications and Constructional requirements to create the rate of a work item
- Updating the data inputs every year or from time to time, to revalidate the item rates

2. GENERAL METHODOLOGY:

a. Composite Schedule of Rates was originally published in the year 1991 and subsequent revisions were carried out in 1995, 2000, 2005, 2006 and 2008. There are total of 91 Districts considered and are given numbers in Alphabetical order and their Province wise breakdown as under:

Province	No of Districts
Punjab	34
Sind	16
NWFP	21
Balochistan	20

Specifications and Methodology for Construction items have been adopted as given in General Specification of National Highway Authority (1998). Items of work for construction have been given the same numbers as appearing in the General Specifications of National Highway Authority.

b. These rates are based on the existing formulae and efficiency levels used in the preparation of CSR 2005, 2006 and 2008 with some modifications.

c. The rates analysis of individual items of CSR 2009 consists of four basic inputs, which have been assigned the same code numbers as in the previous Composite Schedule of Rates.

i. Manpower code starting from 1001 onwards

ii. Material code starting from 2001 onwards

iii. Equipment code starting from 3001 onwards

iv. Overheads, Profits & Preliminaries

d. For the preparation of rates following documents have been referred:

   i. General Specifications 1998

   ii. NHA Composite Schedule of Rates 2005, 2006 & 2008 and its basic data

   iii. Statistical Bulletins by Federal Bureau of Statistics

   iv. Current Market rates study

   Code list of Manpower, Material and Equipment appear at the end of the chapter for the convenience of the users.

2.1 MANPOWER:

a. **Allocation of Code Numbers:**

   Costs of manpower engaged on Plant & Equipment have been included in rental charges of Plant & Equipment and only site supervisory staff have been considered under the heading of Manpower. Code numbers are allocated accordingly to such manpower that is directly charged to the items of work. Manpower cost for top supervision, administration and other non-productive works of support services have been considered under overhead charges.

b. **Formulation of Rates:**

   Manpower basic rates collected from districts have been first scrutinized, to eliminate irrational information and following overheads are applied to include fringe benefits and other charges:

   i. Social Security Payment

   ii. E.O.B.I. Payment

   iii. Education Cess Payment

   iv. Yearly Leave Salary (Earned, casual and sick)

   v. Bonus (Compulsory)

   vi. Provident Fund (Contribution of Employer) or Gratuity

   vii. Mess Expenses (Site Staff)

   viii. Entertainment Allowance (Provisional)

   ix. Group Life Insurance

   x. Site Staff Accommodation

   After including above overheads, manpower rates for each of the 91 district have been calculated and separate records developed for use by the Computer Program.

2.2 CONSTRUCTION MATERIAL:

a. Allocation of Code Numbers to Materials:

List of materials required for road construction has been first prepared from the construction items appearing in the General Specifications of National Highway Authority. After arranging the construction material list in order, code numbers have been allocated.

b. Formulation of Rates:

Considering the location of each district, Engineers decided the most appropriate source of construction materials for all the code numbers. The cost of material at source has been established from field data and transportation rates calculated, to arrive at the landed cost of material at the district headquarters.

c. Cost of Material

In order to arrive at a “Material at sources” rate, following considerations have been made.

i. Material royalty at quarry (actual or estimated)

ii. Cost of Preparation of material

iii. Unauthorized local charges in the province of Balochistan and Sind

iv. Loading of material in truck / trailer etc

d. Cost of Transportation

Transportation charges have been taken as actual, where local transporters are available. However, in some districts where local transporters rates are not quoted, transportation charges graphs have been used.

In case of quarry materials, the source of materials for embankment, Sub-Base or Base Course can be more than one; however, the most appropriate source from the point of view of quality and economy has been used for preparing the Composite Schedule of Rates – 2009.

2.3 PLANT AND EQUIPMENT

a. Allocation of Code Numbers

The list of plant and equipment includes major equipment whereas small equipment, tools and attachments are ignored, as these have been charged under the item of overhead. After arranging the list in order, code numbers have been allocated starting from 3001 (onwards).

b. **Power, Performance and Maintenance of Plant & Equipment**

To arrive at the decision for choosing the right horse power, appropriate performance level and reasonable maintenance charges, the recommendation of well known suppliers have been considered. In order to decide the price level of any equipment, average cost has been used, which includes C&F price, plus duties and taxes etc.

c. **Formulation of Rates of Plant and Equipment**

The owning and operating costs are similar for all the districts, unlike manpower and materials where rates may differ for each district.

The owning and operating costs are developed by using a standard format. The duties and taxes have been calculated as per the latest Excise and Land Customs Tariff for calculating total cost of equipment.

Fuel consumption, working efficiency and maintenance costs have been fixed after consulting the recommendation of the manufacturers. Equipment economical life and tire life have been fixed after consulting several organizations using heavy and light equipment in the present indigenous conditions.

The owning and operating costs for 80 types of equipment is provided at the end of this chapter.

2.4 FORMULAE FOR CONSTRUCTION ITEMS

All the basic inputs have been updated in the individual rates analysis. These formulae have been created by appropriate quantitative inputs of the following items.

Manpower	Hour and Number
Material	Weight, Volume, Length and Unit
Plant Equipment	Hour and Number
Overheads, profit and preliminaries	25 percent

2.5 OVERHEADS, PROFIT & PRELIMINARIES

a. **Profit**

The level of profit is governed by the degree of competition applicable to the job which is in turn a function of the industry's current work load. The appropriate addition is highly variable.

b. **Head Office Overheads**

An addition to the estimate needs to be made to the net estimate to cover all costs incurred in operating the central services provided by head office. Apart

from general management and accountancy, this will normally include the departments dealing with:

Tendering / Estimating
Planning & design
Wages and bonus
Finance Cost:- *Some companies would include finance costs with head office overheads, but this will vary from contractor to contractor.*

The appropriate addition varies with the extent of services provided centrally and company to company, rather than on site, and with size of organization.

c. **Preliminaries**

Preliminaries cost in Civil Engineering works or indirectly related to the actual quantity of work being carried out. It comprises a definition of method related charges, a checklist of items to be accounted for on typical Civil Engineering Contract.

Generally contract document give detailed requirements for the facilities and equipment to be provided for the employer and the Engineer's Representative given in the Bill of Quantities. Thus General Items given in the BOQ are excluded from the check list of preliminaries.

The following checklist is representative but not exhaustive which is not covered in the BOQ or General items section. The list describes the major preliminaries which are included, implicitly or explicitly, in a typically Civil Engineering Contract.

- ***Contractor's site on costs***
- ***Temporary works (other then those included in unit cost)***
- ***General purpose plant (other than those included in unit cost)***
- ***Other services, charges and fees***
- ***Site Staff Salaries***

  All non-productive supervisory staff on site i.e., agents, clerks, computer operators, security guards, store men, drivers for staff vehicles, cleaners, general labour for general clearance etc.

- ***Plant Maintenance***

  Fitters, electricians and assistants engaged on general plant maintenance on site (excludes drivers who are provided in the unit costs)

- ***Site Transport for Staff and General Use***

  Vehicles / buses provided for use of staff and others including running costs etc.

- ***Contractors offices rental / construction / site huts and associated running costs.***
- ***Canteen, welfare / medical***
- ***General office expenditure***
- ***Provision of postage, stationary and other consumables for general office use***
- ***Mobilization and demobilisation of resources.***
- ***Telecommunications***
- ***Furniture and equipment***
- ***Small tools***
- ***Traffic Control, traffic diversion and sign***
- ***Fencing***
- ***Protective clothing***
- ***Health and safety***
- ***Road lighting***
- ***Cleaning roads etc***
- ***Progress photographs***
- ***Water Supply***
- ***Electric connection***
- ***Notice boards and signs***
- ***Insurances / bonds / bank guarantees / Employees liabilities insurance etc.***

There will be many other items of preliminaries which may have to be considered, which probably will be project and site specific.

Preliminaries % percentage can vary from project to project.

d. **Tax**

Tax has been included as per Government rules.

In the CSR, 25% is added on the estimated unit cost of the items which includes over heads, taxes, preliminaries and profit, however this will vary from project to project and contractor to contractor.

2.6 VARIABLES EFFECTING THE RATE ANALYSIS

Rate analysis in CSR have been prepared based on policy explained here above. However, there are certain factors required to be considered while deciding about more realistic rates in special situations.

a. **Price Escalation**

General and Special escalation has been considered as published by Government Agencies. However, care is to be exercised to consider Government Legislation, which may create condition of Special Escalation.

b. **Double Taxation**

In International tenders, a factor is to be considered which may handicap the contractors from such countries, whose governments have no agreement with the Government of Pakistan to avoid double taxation. Effect of this item will be equal to the limit of tax level in such a country.

c. **Service Roads**

No provision has been made in this rate analysis for road diversion cost or service road, which the contractor has to construct or maintain as a non-BOQ item.

d. **Extra Overhead for Expatriate Staff**

International tenders will require a factor to employ expatriate staff on the project. Effect of this will be equal to the actual expenses on such item.

e. **Other Factors**

Some of the items mentioned in above text included as overhead Cost in Estimates of CSR, may appear as a B.O.Q item in a tender, the cost of such items are to be adjusted from the total estimate of the project.

LIST OF MANPOWER

Man power Code	Description
1001	SITE ENGINEER
1002	ASPHALT PLANT ENGINEER
1003	CONCRETE PLANT ENGINEER
1011	FOREMAN ASPHALT
1012	FOREMAN EARTHWORK
1013	FOREMAN CONCRETE
1014	GENERAL FOREMAN
1021	SUPERVISOR
1022	SURVEYOR
1023	ASSISTANT SURVEYOR
1031	MASON
1032	CARPENTER
1033	PAINTER
1034	STEEL BINDER/CUTTER
1040	HIGHLY SKILLED LABOUR
1041	HELPER
1042	WELDER
1051	LABOUR

Note:

Cost of following Manpower has been included elsewhere as under:

1. Top Management, Senior Engineers and above included in overhead and preliminaries.

2. All indirect Manpower such as Clerk, Typist, Accountant, Lab staff, Workshop staff, Store staff, Security staff etc. is included under overhead and preliminaries.

3. All operators of Light and Heavy Duty Equipment and Plant Included in the hourly rate of the equipment

LIST OF MATERIAL

Material Code	Description	Unit
2001	ROCK	CM
2002	SOIL CLASS-A1	CM
2004	SOIL CLASS-A2	CM
2008	SOIL CLASS-A3	CM
2009	SOIL CLASS-A4	CM
2010	SOIL CLASS-A5	CM
2014	CRUSHED AGGREGATE BASE A	CM
2015	CRUSHED AGGREGATE BASE B	CM
2016	CRUSHED AGGREGATE BASE B1	CM
2017	GRANULAR SUB-BASE A	CM
2018	GRANULAR SUB-BASE B	CM
2019	SAND CLASS C	CM
2021	COARSE SAND	CM
2022	FINE SAND	CM
2023	AGGREGATE 2"-1.1/2"	CM
2024	AGGREGATE 1.1/2"-3/4"	CM
2025	AGGREGATE 3/4"-3/8"	CM
2026	AGGREGATE 3/8"-EACH 4	CM
2027	AGGREGATE EACH4-EACH200	CM
2028	FILLER MATERIAL	CM
2029	BRICK CLASS A	EACH
2030	STONE RANDOM CLASS-A	CM
2031	STONE RANDOM CLASS-B	CM
2032	STONE RANDOM CLASS-C	CM
2033	STONE RANDOM CLASS-D	CM
2034	STONE DRESSED	CM
2035	HAND BROKEN STONE 2.1/2"-1/2"	CM
2041	ASPHALT GRADE 60/70	TON
2042	ASPHALT GRADE 80/100	TON
2043	ASPHALT M.C. 70	TON
2044	ASPHALT M.C. 250	TON
2045	ASPHALT M.C. 800	TON
2046	ASPHALT R.C. 70	TON
2047	ASPHALT R.C. 250	TON
2048	ASPHALT R.C. 800	TON
2049	ASPHALT S.S. 1	TON
2050	ASPHALT S.S. 1H	TON
2051	ASPHALT R.S. 1	TON
2052	ASPHALT R.S. 2	TON
2053	CEMENT TYPE-I (OPC)	BAG
2054	CEMENT TYPE-II (LOW S.R)	BAG
2057	CEMENT TYPE-V (HIGH S.R)	BAG
2058	ACCELERATOR	LIT
2059	RETARDER	LIT
2060	CURING COMPOUND	LIT
2061	STEEL GRADE. 40	TON
2062	STEEL GRADE. 60	TON

LIST OF MATERIAL

Material Code	Description	Unit
2063	PRE-STRESSING STRAND, 3/8", 1/2"	TON
2064	STEEL WIRE MESH, 4" x 4"	KG
2065	WATER	1000 LIT
2067	STEEL WIRE FABRIC AASHTO M-55	TON
2068	STEEL EXPANSION JOINT	KG
2070	COLD STEEL WIRE AASHTO M-32	TON
2072	STRUCTURES SHAPES ASTM A-36	TON
2073	ELASTOMERIC BEARING PAD M-183	c.cm
2077	RCC PIPE CLASS-II 310 MM (AASHTO M-170)	M
2078	RCC PIPE CLASS-II 380 MM (AASHTO M-170)	M
2079	RCC PIPE CLASS-II 460 MM (AASHTO M-170)	M
2080	RCC PIPE CLASS-II 610 MM (AASHTO M-170)	M
2081	RCC PIPE CLASS-II 760 MM (AASHTO M-170)	M
2082	RCC PIPE CLASS-II 910 MM (AASHTO M-170)	M
2083	RCC PIPE CLASS-II 1070 MM (AASHTO M-170)	M
2084	RCC PIPE CLASS-II 1220 MM (AASHTO M-170)	M
2085	RCC PIPE CLASS-II 1520 MM (AASHTO M-170)	M
2091	CAT EYE SINGLE (RAISED PROFILE)	EACH
2092	CAT EYE DOUBLE (RAISED PROFILE)	EACH
2093	STEEL/METAL BEARING DEVICES	KG
2095	BITUMEN IMPREGNATED FIBRE BOARD	SM
2096	NEOPRENE RUBBER JOINT FELT	SM
2097	ASPHALT FELT (3-PLY)	SM
2098	PVC/NEOPRENE WATER STOPS (6")	M
2099	BENTONITE POWDER	KG
2100	JOINT SEALANT FILLER	KG
2101	TRAFFIC SIGN CAT 1	EACH
2102	TRAFFIC SIGN CAT 2	EACH
2103	TRAFFIC SIGN CAT 3 (A, B, C)	SM
2104	PAVEMENT MARKING NON-REFLECTING (CR)	LIT
2105	PAVEMENT MARKING REFLECTING (CR)	LIT
2108	TUNGSTEN CARBIDE BITS	SET
2109	RED OXIDE PAINT	LIT
2110	QUICK LIME	KG
2111	DIESEL	LIT
2112	SUPER	LIT
2113	REGULAR	LIT
2114	OILS (ALL TYPES)	LIT
2115	LUBRICANTS (GREASE)	KG
2116	FURNACE OIL	LIT
2117	BLASTING MATERIAL	KG
2118	ELECTRIC CHARGES COMMERCIAL	KWH
2119	MASTIC WATER PROOF PAINT	KG
2120	SYNTHETIC ENAMEL PAINT	LIT
2121	SHUTTERING (401) A	LS
2122	SHUTTERING (401) B	LS
2123	SHUTTERING (401) C	LS
2124	SHUTTERING (401) D	LS

LIST OF MATERIAL

Material Code	Material Code	Material Code
2125	SHUTTERING (401) E	LS
2126	SHUTTERING (401) F	LS
2127	SHUTTERING (401) G	LS
2128	SHUTTERING (401) H	LS
2129	SHUTTERING (410)	LS
2131	G.M.S BARBED WIRE	KG
2133	ANGLE IRONS DIFFERENT SIZES	KG
2134	STEEL CHANNELS	KG
2135	SHEATHS (3/8", 1/2")	M
2136	LIVE ANCHORAGES (3/8" - 1/2")	EACH
2137	G.I. PIPE 3" DIA	M
2140	G.M.S SCREW, NUTS, BOLTS AND WASHERS	KG
2142	PLANTATION TREES	EACH
2143	MOBILIZATION OF PILING EQUIPMENT	LS
2144	RCC PIPE CLS-IV 310 MM (AASHTO M-170)	M
2145	RCC PIPE CLS-IV 380 MM (AASHTO M-170)	M
2146	RCC PIPE CLS-IV 460 MM (AASHTO M-170)	M
2147	RCC PIPE CLS-IV 610 MM (AASHTO M-170)	M
2148	RCC PIPE CLS-IV 760 MM (AASHTO M-170)	M
2149	RCC PIPE CLS-IV 910 MM (AASHTO M-170)	M
2150	RCC PIPE CLS-IV 1070 MM (AASHTO M-170)	M
2151	RCC PIPE CLS-IV 1220 MM (AASHTO M-170)	M
2152	RCC PIPE CLS-IV 1520 MM (AASHTO M-170)	M
2153	PAVEMENT MARKING NON REFLECTING (TP)	KG
2154	PAVEMENT MARKING REFLECTING (TP)	KG
2155	GALVANIZED FLAT STEEL FASTENERS & WASHERS	KG
2156	GALVANIZED U-BOLT CLAMP WITH 2 NUTS & TIE BOLTS	KG
2157	GALVANIZED SUPPORTING HOOKS CAST IN PRECAST POSTS	EACH
2158	GALVANIZED CHAIN LINK WIRE MESH FABRIC	SM
2159	GALVANIZED WIRE 3.76MM Ø TENSION, 3MM Ø STIRRUP	KG
2160	PRE-CAST CONCRETE TUFF KERB STONE(K-5)	EACH
2161	LIFTING DEVICE ANCHORS	EACH
2162	MS SHEET	KG
2163	FABRICATION	KG
2164	GALVANIZATION	KG

PLANT AND EQUIPMENT OWNING OPERATING COST SUMMARY
(CSR- Jan-2009)

Equipment Code	Description	T – Owning Cost	T- Operating Cost	T – Hourly O.W. & Operating Cost
3001	Bull-Dozer. 200 H.P	1,503.78	2,064.93	**3,568.71**
3002	Bull-Dozer. 120 H.P	973.02	1,011.88	**1,984.90**
3003	Bull-Dozer. 90 H.P	796.11	672.49	**1,468.60**
3004	Front End Loader. 3.00 Cu.M	1,457.39	1,558.64	**3,016.03**
3005	Front End Loader. 2.50 Cu.M	942.30	1,267.74	**2,210.04**
3006	Front End Loader. 1.50 Cu.M	854.12	1,044.74	**1,898.86**
3007	Grader. 165 H.P	1,210.40	1,411.34	**2,621.74**
3008	Grader. 140 H.P	857.12	1,117.67	**1,974.79**
3011	Tandem Vibratory Roller. 10-12 Ton	751.89	876.19	**1,628.08**
3012	Tandem Vibratory Roller. 8 Ton	692.91	766.50	**1,459.41**
3013	Tandem Vibratory Roller. 6 Ton	339.09	524.82	**863.91**
3014	Tandem Vibratory Roller. 1.5 Ton	240.30	281.56	**521.86**
3015	Combination Roller. 18 T	844.61	1,201.71	**2,046.32**
3016	Combination Roller 10 - 12 T	669.88	1,079.05	**1,748.93**
3017	Combination Roller 8 T	479.07	691.31	**1,170.38**
3018	P.T.R (9 - Wheeler) 21 T	405.57	941.13	**1,346.70**
3019	P.T.R (9 - Wheeler) 18 T	369.27	781.57	**1,150.84**
3020	Static Tandem Roller 12 T	140.07	488.28	**628.35**
3021	Static Tandem Roller 8T	117.93	486.84	**604.77**
3022	Tractor 80 H. P	62.95	591.82	**654.77**
3023	Tractor 50 H. P	37.56	376.62	**414.18**
3024	Water Tank Bowser Type 12000 Litre	240.49	618.21	**858.70**
3025	Water Tank Tow Type 4000 Litre	52.16	382.07	**434.23**
3031	Motor Scraper 400 H. P	1,449.78	5,135.17	**6,584.95**
3032	Dumper 18 T	288.03	1,084.37	**1,372.40**
3033	Dumper 10 T	230.44	693.31	**923.75**
3034	Flat Body Truck 8 T	177.69	513.95	**691.64**
3047	Excavator, (Track Type) 100 H. P	825.60	727.34	**1,552.94**
3048	Power Broom	92.93	527.46	**620.39**
3051	Bitumen Distributor Tow Type 2000 Litre	155.67	414.85	**570.52**
3052	Bitumen Sprayer (Manual) 250 Litre	11.93	51.99	**63.92**
3053	Aggregate Spreader 4 M Wide	729.78	510.65	**1,240.43**
3054	Asphalt Plant 120 T	7,983.72	8,759.34	**16,743.06**
3055	Asphalt Plant 80 T	5,655.13	7,446.96	**13,102.09**
3056	Asphalt Plant. 40 Ton	4,657.19	4,114.85	**8,772.04**

PLANT AND EQUIPMENT OWNING OPERATING COST SUMMARY
(CSR – Jan-2009)

Equipment Code	Description	T – Owning Cost	T- Operating Cost	T – Hourly O.W. & Operating Cost
3057	Asphalt Plant. 20 Ton	3,326.57	3,151.87	**6,478.44**
3058	Paver 4 M Wide	729.78	1,109.56	**1,839.34**
3059	Paver 2.5 M Wide	501.27	990.82	**1,492.09**
3061	Compressor. 300 CFM	168.72	907.25	**1,075.97**
3062	Rock Driller	204.48	79.81	**284.29**
3071	Concrete Batching Plant. 30 CUM/H	554.97	2,499.29	**3,054.26**
3072	Concrete Static Mixer 1 Cu.Y	110.76	331.90	**442.66**
3073	Concrete Static Mixer 1/4 Cu.Y	25.56	221.24	**246.80**
3074	Concrete Transit Mixer 6 Cu.M	807.29	1,043.38	**1,850.67**
3075	Concrete Transit Mixer 4 Cu.M	754.19	752.33	**1,506.52**
3081	Trailer Low Bed 30 T.	506.66	1,000.71	**1,507.37**
3082	Crane. 45 T.	651.30	1,039.13	**1,690.43**
3083	Crane. 20 T.	564.69	849.55	**1,414.24**
3084	Cold Milling Machine. 1 M Width	1,765.58	1,265.48	**3,031.06**
3085	Road Marking Machine.	135.32	346.26	**481.58**
3086	Pump 4 " Delivery (Diesel)	43.50	262.48	**305.98**
3087	Pug mill 40 Tons per Hour.	746.27	2,381.43	**3,127.70**
3088	Chipping Spreader 3 Meter Wide	70.03	379.76	**449.79**
3089	Sand Blasting Machine	73.71	1,651.67	**1,725.38**
3120	Stressing Equipment	112.01	1,627.88	**1,739.89**
3121	Asphalt Cutter	47.14	321.07	**368.21**
3122	Concrete Cutter	47.14	321.07	**368.21**
3123	Electric Saw	21.30	810.84	**832.14**
3195	Truck (3-Axle)	248.42	668.52	**916.94**
3196	Tractor Trolley	94.15	445.65	**539.80**
3197	Trailer (30 Ton)	445.63	1,000.71	**1,446.34**
3198	Welding Plant	55.99	815.06	**871.05**
3199	Generator (Diesel) 150 KVA	214.62	1,365.49	**1,580.11**
3200	Generator (Diesel) 250 KVA	355.54	2,154.76	**2,510.30**
3202	Rock Crushing & Screening (200 T/H)	1,233.96	8,294.10	**9,528.06**
3205	Secondary Crusher	59.64	2,990.77	**3,050.41**
3206	Diesel Tanker	215.24	516.80	**732.04**
3208	Jack Hammer	33.60	304.09	**337.69**
3209	Pilling Rig (upto 1.5 m dia)	417.40	667.99	**1,085.39**

PLANT AND EQUIPMENT OWNING OPERATING COST SUMMARY
(CSR – Jan-2009)

Equipment Code	Description	T – Owning Cost	T- Operating Cost	T – Hourly O.W. & Operating Cost
3209a	Pilling Rig (above 1.5 m dia)	571.50	1,235.49	**1,806.99**
3210	Vibrator (Poker 1.5 ")	17.40	302.76	**320.16**
3211	Percussion Boring Rig	119.28	267.80	**387.08**
3212	Forgoing / Shape Machine	67.20	1,561.84	**1,629.04**
3214	Concrete Pump	621.60	1,170.56	**1,792.16**
3215	Plate Compactor	43.50	305.76	**349.26**
3217	Girder Launcher	1,464.46	1,034.77	**2,499.23**
3218	Tripod & Chain Pulley (20 Ton)	11.21	128.54	**139.75**
3219	Electric Generator 50 KVA	81.79	4,531.51	**4,613.30**
3220	Asphalt Recycling Machine	7,154.11	3,961.17	**11,115.28**
3221	Road Marking Machine (TP)	196.02	416.54	**612.56**

QUARRY SITES (NWFP)

Dist Code	District	Sites
AGGREGATES		
35	Kohistan dasu	Buttgram/ Mansehra area
7-B	Buttgram	Buttgram/ Mansehra area
43	Mansehra	Margalla, Hawalian
73	Muzafarabad	Margalla, Hawalian
1	Abbottabad	Margallah, Dur Nala
20-B	Haripur Hazara	Margallah, Dur Nala
10	Chitral	Chitral Area, Swat Area
15	Dir	Swat Area, Quarry Available no crusher
66	Swat Saidu Sharif	Chakdara, Swat Area
66-B	Kalam	Chakdara, Swat Area
7-A	Buneer	Swat Area
42	Malakand	chakdara, Swat area
10-A	Charsaddah	Charsad Area, Mardan, Dara Adam Khel
44	Mardan	Katlung, Charsada
66-A	Swabi	Margallah, Katlung
49-C	Nowshera	Katlung (Nowshera), Margallah
52	Peshawar	Charsada, charat, Khyber pass, Adam Khel
34	Kohat	Kohat Area, Dara Adam Khel
27	Karak	Kohat Area
6	Bannu	Kohat, Eisa Khel
41-B	Lucky Murwat	Kohat, Eisa Khel
70-A	Tank	Daraban Crushers
12	Dera Ismail Khan	Daraban Crushers, Chund quarry
CRUSHED AGGREGATE BASE		
35	Kohistan dasu	Chillas, Jalkot, Buttgram/ Mansehra area
7-B	Buttgram	Buttgram/ Mansehra area
43	Mansehra	Margalla, Hawalian
73	Muzafarabad	Margalla, Hawalian
1	Abbottabad	Abbotabad Area, Dor Nala
20-B	Haripur Hazara	Margallah, Dur Nala
10	Chitral	Shishi Bridge, Chitral Area
15	Dir	Swat Area, Quarry Available no crusher
66	Swat Saidu Sharif	Chakdara, Swat Area
66-B	Kalam	Chakdara, Swat Area
7-A	Buneer	Swat Area

QUARRY SITES (NWFP)

Dist Code	District	Sites
42	Malakand	chakdara, Swat area
10-A	Charsaddah	Charsad Area, Mardan, Dara Adam Khel
44	Mardan	Katlung, Charsada
66-A	Swabi	Margallah, Katlung
49-C	Nowshera	Nowshera area, Mardan Area
52	Peshawar	Charsada, charat, Khyber pass, Adam Khel
34	Kohat	Dara Adam Khel, Darsamand
27	Karak	Kohat
6	Bannu	Kurram, Bannu area
41-B	Lucky Murwat	Bannu area
70-A	Tank	Eisa Khel, Zam Nala, Pezu, Daraban
12	Dera Ismail Khan	Daraban
GRANULAR SUB-BASE		
35	Kohistan dasu	Pattan, Chillas, Jalkot, Buttgram
7-B	Buttgram	Dor Nallah, Patan
43	Mansehra	Dor Nullah, Katha Nullah, Icher Nala
73	Muzafarabad	Dor Nullah, Katha Nullah, Icher Nala
1	Abbottabad	Dor nullah
20-B	Haripur Hazara	Dor Nullah
10	Chitral	Shishi Bridge, Chitral Area
15	Dir	Maiar Nala, Punjkot River
66	Swat Saidu Sharif	Swat river
66-B	Kalam	Swat river
7-A	Buneer	Swat Area
42	Malakand	Wartir Nala, Heru Shah Quary
10-A	Charsaddah	Charsad Area, Mardan, Dara Adam Khel
44	Mardan	Katlung, Charsada
66-A	Swabi	Margallah
49-C	Nowshera	Nowshera, Mardan Area
52	Peshawar	Balu Nala, GandiahNala Dheri Kati Khel Nala
34	Kohat	Kohat area
27	Karak	Pezu, Chokara, Tri Nala, Tironky nala
6	Bannu	Kurram River, Pizu
41-B	Lucky Murwat	Pezu area
70-A	Tank	DI Khan Area
12	Dera Ismail Khan	Daraban, Zam, Pirkuch Nala, Chund Quarry

QUARRY SITES (NWFP)

Dist Code	District	Sites
FILLER MATERIAL		
35	Kohistan dasu	Buttgram/ Mansehra area
7-B	Buttgram	Buttgram/ Mansehra area
43	Mansehra	Margalla, Hawalian
73	Muzafarabad	Margalla, Hawalian
1	Abbottabad	Dur Nala
20-B	Haripur Hazara	Margallah, Dur Nala
10	Chitral	Chitral Area, Swat Area
15	Dir	Swat Area, Quarry Available no crusher
66	Swat Saidu Sharif	Chakdara, Swat Area
66-B	Kalam	Chakdara, Swat Area
7-A	Buneer	Swat Area
42	Malakand	chakdara, Swat area
10-A	Charsaddah	Charsad Area, Mardan, Dara Adam Khel
44	Mardan	Katlung, Charsada
66-A	Swabi	Margallah, Katlung
49-C	Nowshera	Katlung (Nowshera), Margallah
52	Peshawar	Charsada, charat, Khyber pass, Adam Khel
34	Kohat	Kohat Area, Dara Adam Khel
27	Karak	Kohat Area
6	Bannu	Kohat, Eisa Khel
41-B	Lucky Murwat	Kohat, Eisa Khel
70-A	Tank	Daraban Crushers
12	Dera Ismail Khan	Daraban Crushers, Chund quarry

Quantities of Material for Bituminous Surface Treatments

Surface Treatment		Aggregate		Bituminous Material	
Type	Application	Size No.	Quantity Kg/ Sq.M	Quantity Litres/ Sq.M	Type
Single	Single	2	12.5	1.19 1.63	(a) (b)
Double	First	1	24	1.9 2.14	(a) (b)
	Second	3	12.5	1.19 1.63	(a) (b)
Triple	First	1	24	1.9 2.14	(a) (b)
	Second	2	12.5	1.19 1.63	(a) (b)
	Third	3	6.5	0.68	(c)
Seal Coat / Pad Coat with Aggregate		4	4	0.5	(c)
Prime Coat	Over Sub grade, Sub base , WBM or Aggregate base			0.65 ~ 1.75	(b)
	Over Bridge, wearing surface. Concrete pavement			0.15 ~ 0.4	(b)
Tack Coat	Over Previously laid asphaltic layer			0.2 ~ 0.4	Cut-back
	Over Previously laid asphaltic layer			0.3 ~ 0.6	Emulsified asphalt
Asphaltic Base	Over prime or tack coated surface	As per NHA / Project Spec's		3% (Min.)	Grade 40/50, 60/70, 80/100
Asphaltic Wearing Coarse	Over tack coated surface	As per NHA / Project Spec's		3.5% (Min.)	Grade 40/50, 60/70, 80/100

Note:

(i) Bituminous material types are (a) asphalt cement, (b) cut-back or emulsified and (c) asphalt cement, cut-back and emulsified

Portland Cement Concrete Requirements

Class of Concrete	Min. Cement Kg/ Cubic Meter	Max. Size of Coarse Aggregate (mm)	28 Days Compressive Strength (Min) (Cylinder)		Consistency (Range in Slump)	Maximum Permissible Water - Cement Ratio
			(Kg/Sq. Cm)	(Psi)	Vibrated (mm)	
A_1	300	20	210	3000	25 - 75	0.58
A_2	350	25	245	3500	100 - 150	0.58
A_3	400	38	280	4000	100 - 150	0.58
B	250	51	170	2450	25 - 75	0.65
C	275	38	210	3000	25 - 75	0.58
D_1	450	25	350	5000	50 - 100	0.40
D_2	500	25	425	6000	50 - 100	0.40
D_3	550	25	500	7100	50 - 100	0.40
Y	400	13	210	3000	25 - 75	0.58
Lean Concrete	175	51	100	1420	–	–

Cement Bags per Unit Quantity

Sr. No	Description	Unit	Qty of Cement in Bag of 50 Kg
1	Burnt brickwork in Cement Mortar (1:6)	CM	2.10
2	Burnt brickwork in Cement Mortar (1:3)	CM	2.79
3	Pointing brickwork (flush) in Cement Mortar (1:3)	SM	0.018
4	Pointing brickwork (flush) in Cement Mortar (1:4)	SM	0.013
5	Pointing brickwork (flush) in Cement Mortar (1:6)	SM	0.009
7	Random rubble masonry in Cement Mortar (1:4)	CM	1.960
8	Pointing in Cement Mortar (1:3) flush to stone masonry	SM	0.063
9	Pointing in Cement Mortar (1:4) flush to stone masonry	SM	0.050
10	13 mm thick cement plaster (1:4)	SM	0.14
11	13 mm thick cement plaster (1:3)	SM	0.20
12	19 mm thick cement plaster (1:6)	SM	0.13
13	19 mm thick cement plaster (1:4)	SM	0.20

CONVERSION FACTORS

To Convert	Into	Multiply By
Length		
Inch	Millimetre	25.4
Millimetre	Inch	0.03937
Foot	Metre	0.30480
Metre	Foot	3.28084
Yard	Metre	0.91440
Metre	Yard	1.09361
Mile	Kilometre	1.60934
Kilometre	Mile	0.62137
Mass. Weight		
Pound	Kilogram	0.45359237
Kilogram	Pound	2.20462
Ounce	Gram	28.3495
Gram	Ounce	0.03527
Quintal	Kilogram	100
Grain	Milligram	64.7989
Hundred Weight	Kilogram	50.8023
Tonne	Hundred Weight	19.6841
Tonne	Kilogram	1000
Ton	Kilogram	1016.0469
Ton	Pound	2240
Ton	Tonne	1.0160469
Tonne	Ton	0.9842065
Seer	Kilogram	0.9331
Maund	Kilogram	37.324
Tola	Gram	11.664
Capacity Volume		
Pint (UK)	Litre	0.568261
Gallon (Imperial)	Litre	4.54609
Cubic foot	Litre	28.3168
Cubic metre	Litre	1000
Litre	Cubic foot	0.0353147
Fluid ounce	Millilitre	28.413
Litre	Gallon (Imperial)	0.219969
Cubic inch	Cubic millimetre	16387.1
Cubic foot	Cubic metre	0.0283168
Cubic metre	Cubic foot	35.3147
Cubic yard	Cubic metre	0.764555
Cubic metre	Cubic yard	1.30795
Acre foot	Hectare metre	0.12334

Weights & Standard Sizes of Sheets

Birmingham Gauge	Thickness in mm	Kg Per Sqm
28	0.40	3.15
26	0.50	3.90
24	0.63	4.95
22	0.80	6.30
20	1.00	7.85
18	1.25	9.80
16	1.60	12.75
14	2.00	15.70
12	2.50	19.60
10	3.15	24.75
8	4.00	31.40

To Convert	Into	Multiply
Area		
Square inch	Square millimetre	645.16
Square millimetre	Square inch	0.00155
Square foot	Square metre	0.0929
Square metre	Square foot	10.7639
Square yard	Square metre	0.836127
Square metre	Square yard	1.19599
Acre	Square metre	4046.8564
Acre	Hectare	0.40468564
Hectare	Acre	2.47105
Hectare	Square metre	10000
Square mile	Square kilometre	2.58999
Square kilometre	Square mile	0.386102
Square mile	Hectare	258.999
Hectare	Square mile	0.00386102
Mass Per Unit Area		
Ton per square mile	Kilogram per square kilometre	392.298
Pound per square foot	Kilogram per square metre	4.88243
Kilogram per square metre	Pound per square foot	0.204816
Mass Per Unit Volume		
Ton per cubic foot	Kilogram per cubic metre	16.0185
Pound per cubic foot	Grams per litre	16.0185
Kilogram per cubic metre	Pound per cubic foot	0.062428
Grams per litre	Pound per cubic foot	0.062428

The weight of Mild Steel and Ribbed Tor Steel bars

Dia in Millimetre	Sectional area in Square Centimetre	Weight in Kilogram Per Metre
6	0.283	0.222
8	0.502	0.395
10	0.785	0.617
12	1.131	0.888
16	2.011	1.578
18	2.545	2.000
22	3.801	2.980
25	4.909	3.854
28	6.157	4.830
32	8.042	6.313
35	10.179	7.990
40	12.566	9.864
50	19.635	15.410

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

N.W.F.P.

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

CSR - January 2009

National Highway Authority
Islamabad

SHABIR ASSOCIATES
Quantity Survying & Construction Cost Consultants

LIST OF DISTRICTS (NWFP)

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

ABBOTTABAD
(01)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Abbottabad **District Code: 01**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.73	10.10	-	2.71	13.54
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.72	173.32	1.17	45.55	227.76
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	21.50	456.54	2.63	120.17	600.84
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	86.01	1,826.16	10.51	480.67	2,403.35
103	STRIPPING	CM	2.75	93.22	-	23.99	119.96
104	COMPACTION OF NATURAL GROUND	SM	0.40	9.91	0.76	2.77	13.84
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.65	135.76	-	35.35	176.76
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	141.76	316.30	50.82	127.22	636.10
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.27	337.99	-	89.07	445.33
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	12.03	262.40	-	68.61	343.03
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.62	120.27	-	31.22	156.11
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	141.76	316.30	50.82	127.22	636.10
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	22.64	316.03	-	84.67	423.34
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.25	263.92	-	68.29	341.47
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.58	137.60	0.38	36.64	183.20
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	66.41	287.11	70.80	106.08	530.42
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	125.77	427.01	33.88	146.67	733.33
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	105.22	292.53	-	99.44	497.20
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	64.68	238.86	-	75.89	379.43
107d	GRANULAR BACK FILL	CM	37.04	137.14	415.39	147.39	736.96
107e	COMMON BACK FILL	CM	25.46	62.84	5.09	23.35	116.74
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.56	174.71	5.09	46.84	234.20
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.72	482.48	54.04	139.56	697.80
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.29	416.71	2.42	108.85	544.27
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.48	369.34	-	95.96	479.78
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.48	177.46	7.94	48.47	242.35
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.77	76.32	5.09	22.04	110.22
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.36	110.29	3.03	32.17	160.84
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.54	27.34	1.46	7.58	37.91

District: Abbottabad **District Code: 01**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.13	18.21	0.77	5.03	25.14
110	IMPROVED SUB-GRADE	CM	10.80	120.02	52.42	45.81	229.05
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.92	15.26	0.79	4.24	21.22
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.34	15.57	0.90	4.45	22.26
201	GRANULAR SUB-BASE	CM	8.66	255.06	496.38	190.02	950.12
202	AGGREGATE BASE	CM	10.54	326.54	728.09	266.29	1,331.46
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	72.70	1,510.17	5,779.15	1,840.50	9,202.52
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	75.56	1,510.17	6,199.49	1,946.30	9,731.52
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	80.83	1,577.28	5,769.58	1,856.92	9,284.62
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	80.83	1,571.31	6,342.09	1,998.56	9,992.79
204b	CEMENT STABILIZED BASE	CM	31.56	569.10	956.14	389.20	1,946.00
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	269.62	915.38	50,538.21	12,930.80	64,654.01
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	269.62	915.38	48,960.08	12,536.27	62,681.35
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	91.61	112.80	966.30	292.68	1,463.38
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	152.82	2,437.94	5,563.63	2,038.60	10,192.99
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	100.25	126.27	777.24	250.94	1,254.71
207a	DEEP PATCHING (0-15 cm)	SM	1.90	45.04	1.26	12.05	60.24
207b	DEEP PATCHING (16-30 cm)	SM	1.90	39.67	1.26	10.71	53.53
208	REINSTATEMENT OF ROAD SURFACE	SM	2.09	57.10	0.56	14.94	74.69
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.50	110.61	0.68	28.45	142.23
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.50	22.12	0.14	5.69	28.45
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.33	1.57	35.87	9.44	47.22
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.32	1.57	40.04	10.48	52.42
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.58	15.01	3.93	19.66
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.58	17.51	4.56	22.78
304a	SINGLE SURFACE TREATMENT	SM	0.88	7.57	71.25	19.92	99.62
304b	DOUBLE SURFACE TREATMENT	SM	1.27	14.15	138.38	38.45	192.24
304c	TRIPLE SURFACE TREATMENT	SM	2.14	19.94	157.82	44.97	224.87
304d	SEAL COAT	SM	0.82	4.12	50.15	13.77	68.87

District: Abbottabad **District Code: 01**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	69.52	1,489.33	6,772.24	2,082.77	10,413.86
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	69.52	1,438.23	7,296.26	2,201.00	11,005.01
307a	DENSE GRADED HOT BIT-MAC	CM	167.81	379.77	5,555.86	1,525.86	7,629.31
307b	OPEN GRADED HOT BIT-MAC	CM	167.81	379.77	5,441.58	1,497.29	7,486.45
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	29.24	590.65	2,021.86	660.44	3,302.18
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	29.19	650.70	42,543.28	10,805.79	54,028.96
309a	COLD MILLING, 0 - 30 mm	SM	1.07	24.99	8.68	8.69	43.43
309b	COLD MILLING, 0 - 50 mm	SM	1.79	41.65	14.46	14.48	72.38
309c	COLD MILLING, 0 - 70 mm	SM	2.68	62.48	21.69	21.71	108.56
401a1i	CONCRETE CLASS "A1" (Underground)	CM	544.84	1,059.94	3,946.83	1,387.90	6,939.52
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	544.84	1,059.94	4,224.31	1,457.27	7,286.36
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	544.84	1,059.94	4,779.25	1,596.01	7,980.04
401a2i	CONCRETE CLASS "A2" (Underground)	CM	544.84	1,059.94	4,324.83	1,482.40	7,412.02
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	544.84	1,059.94	4,602.31	1,551.77	7,758.86
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	544.84	1,059.94	5,157.25	1,690.51	8,452.54
401a3i	CONCRETE CLASS "A3" (Underground)	CM	544.84	1,059.94	4,702.83	1,576.90	7,884.52
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	544.84	1,059.94	4,980.31	1,646.27	8,231.36
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	544.84	1,059.94	5,535.25	1,785.01	8,925.04
401b	CONCRETE CLASS "B"	CM	719.81	805.93	3,249.38	1,193.78	5,968.90
401ci	CONCRETE CLASS "C" (Underground)	CM	531.99	500.55	3,544.96	1,144.37	5,721.87
401cii	CONCRETE CLASS "C" (On ground)	CM	531.99	500.55	3,663.30	1,173.96	5,869.80
401ciii	CONCRETE CLASS "C" (Elevated)	CM	531.99	500.55	3,899.98	1,233.13	6,165.66
401d	CONCRETE CLASS "D1"	CM	830.79	1,265.57	5,295.34	1,847.93	9,239.63
401e	CONCRETE CLASS "Y"	CM	1,144.74	500.55	4,712.45	1,589.44	7,947.18
401f	LEAN CONCRETE	CM	446.13	507.52	2,520.49	868.53	4,342.66
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,788.08	947.15	4,942.49	1,919.43	9,597.14
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,788.08	947.15	5,698.49	2,108.43	10,542.14
401gii	PRECAST CONCRETE CLASS "B"	CM	1,788.08	947.15	4,778.84	1,878.52	9,392.59
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,788.08	947.15	6,076.49	2,202.93	11,014.64

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,788.08	947.15	6,454.49	2,297.43	11,487.14
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,788.08	947.15	6,832.49	2,391.93	11,959.64
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,649.89	781.47	59,888.00	15,579.84	77,899.20
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,649.89	781.47	67,238.00	17,417.34	87,086.70
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,311.27	5,393.81	56,007.02	15,678.02	78,390.12
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,816.57	15,659.05	133,860.36	38,083.99	190,419.97
405b	LAUNCHING OF GIRDER	TON	65.06	532.52	-	149.40	746.98
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	115.67	-	301.01	104.17	520.85
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	115.67	-	307.07	105.68	528.42
406c	STEEL EXPANSION JOINTS	KG	9.48	26.40	90.86	31.68	158.42
406d	WATER STOPS 6" SIZE	M	98.99	-	472.28	142.82	714.08
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	45.65	-	2,960.09	751.43	3,757.17
406g	STEEL OR METAL BEARING DEVICES	KG	20.82	69.68	117.77	52.07	260.34
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	355.84	1,654.04	899.75	727.41	3,637.04
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	533.76	2,481.06	1,349.62	1,091.11	5,455.56
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	533.76	2,481.06	997.52	1,003.09	5,015.44
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	889.61	4,135.11	1,174.50	1,549.80	7,749.02
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	762.52	4,884.94	1,354.70	1,750.54	8,752.70
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,334.41	6,909.78	1,487.23	2,432.86	12,164.28
407h	PILE LOAD TEST UP TO 120 TON	EACH	22,545.15	45,769.30	100,542.38	42,214.21	211,071.05
407i	PILE LOAD TEST UP TO 240 TON	EACH	41,156.52	45,769.30	201,084.76	72,002.65	360,013.23
407j	PILE LOAD TEST UP TO 360 TON	EACH	59,767.89	50,188.38	301,627.14	102,895.85	514,479.27
407k	CONFIRMATORY BORING (NX SIZE)	M	194.25	1,582.02	6.37	445.66	2,228.30
410	BRICK WORK	CM	356.73	282.72	3,076.60	929.01	4,645.06
411a	STONE MASONRY RANDOM DRY	CM	299.85	107.96	562.16	242.49	1,212.46
411b	STONE MASONRY RANDOM WITH MORTAR	CM	324.74	166.68	1,635.48	531.73	2,658.64
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	391.00	107.96	625.28	281.06	1,405.29
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	461.46	166.68	1,697.90	581.51	2,907.55

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	76.19	11.74	44.53	33.12	165.59
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	618.85	264.08	1,603.09	621.51	3,107.53
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	229.85	437.48	644.86	328.05	1,640.25
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	221.88	577.19	835.93	408.75	2,043.75
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	221.73	935.96	1,071.91	557.40	2,787.00
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	229.77	1,146.39	1,600.63	744.20	3,720.99
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	264.84	1,078.41	2,300.27	910.88	4,554.41
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	330.10	1,331.30	3,618.01	1,319.85	6,599.26
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	427.18	1,481.41	4,683.95	1,648.14	8,240.68
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	500.94	1,798.85	5,968.88	2,067.17	10,335.84
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	596.65	2,098.66	9,218.85	2,978.54	14,892.70
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	229.85	507.33	725.04	365.56	1,827.78
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	221.88	577.19	854.75	413.46	2,067.28
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	216.61	935.96	1,046.49	549.77	2,748.83
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	229.77	1,146.39	1,745.56	780.43	3,902.15
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	264.84	1,078.41	3,318.70	1,165.49	5,827.45
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	330.10	1,331.30	4,875.32	1,634.18	8,170.90
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	427.18	1,481.41	6,812.38	2,180.24	10,901.22
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	500.94	1,798.85	9,239.15	2,884.74	14,423.68
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	596.65	2,098.66	12,997.71	3,923.26	19,616.28
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	93.70	118.93	428.06	160.17	800.85
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	800.63	612.95	3,599.38	1,253.24	6,266.20
507a	STEEL WIRE MESH FOR GABIONS	KG	5.67	-	109.50	28.79	143.96
507b	ROCK FILL IN GABIONS	CM	96.86	-	388.21	121.27	606.34
508a	BRICK PAVING (SINGLE COURSE)	SM	115.45	32.70	246.96	98.78	493.88
508b	BRICK PAVING (DOUBLE COURSE)	SM	206.59	32.70	490.14	182.36	911.78
509a	RIP RAP CLASS "A"	CM	506.56	-	467.35	243.48	1,217.38
509b	RIP RAP CLASS "B"	CM	486.43	-	463.61	237.51	1,187.55
509c	RIP RAP CLASS "C"	CM	489.61	-	467.35	239.24	1,196.20

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	616.99	102.14	1,889.70	652.21	3,261.04
509e	GROUTED RIP RAP CLASS "B"	CM	594.69	81.72	1,738.21	603.65	3,018.27
509f	GROUTED RIP RAP CLASS "C"	CM	586.72	68.10	1,784.62	609.86	3,049.29
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	816.75	353.02	4,161.87	1,332.91	6,664.55
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	47.66	191.97	415.94	163.90	819.48
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	107.69	390.69	-	124.60	622.98
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	159.31	67.48	75.94	75.68	378.41
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	203.92	86.37	97.21	96.87	484.37
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	260.29	180.32	374.87	203.87	1,019.34
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	325.36	225.40	468.58	254.84	1,274.18
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	288.84	572.25	2,210.98	768.02	3,840.08
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	982.88	670.54	4,055.33	1,427.18	7,135.92
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	143.14	90.27	430.28	165.92	829.61
603	BRICK EDGING	M	9.22	-	38.88	12.03	60.13
604a	METAL GUARD RAIL	M	19.85	70.84	1,579.36	417.51	2,087.56
604b	METAL GUARD RAIL END PIECES	EACH	25.20	-	1,197.58	305.69	1,528.47
604d	STEEL POST OF METAL GUARD RAIL	EACH	95.54	976.73	3,776.31	1,212.14	6,060.72
605a	CONCRETE BEAM GUARD RAIL	M	74.55	30.82	590.23	173.90	869.50
605c	CONCRETE POST FOR GUARD RAIL	M	91.53	27.36	590.14	177.26	886.29
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	240.49	255.15	6,856.68	1,838.08	9,190.40
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	70.70	382.72	9,258.32	2,427.94	12,139.68
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	240.49	541.89	11,887.89	3,167.57	15,837.83
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	754.41	598.64	20,957.75	5,577.70	27,888.50
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	150.88	119.73	9,209.53	2,370.04	11,850.18
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	316.33	-	1,303.23	404.89	2,024.46
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	316.33	-	1,954.85	567.80	2,838.98
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.83	5.86	16.16	6.21	31.07
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.94	4.03	39.66	11.16	55.79
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.83	5.86	21.57	7.56	37.82

District: Abbottabad **District Code: 01**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.94	4.03	52.89	14.47	72.33
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	76.53	5.22	156.16	59.48	297.39
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	76.53	9.98	499.74	146.56	732.82
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.54	8.59	22.48	8.65	43.26
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.54	9.63	67.50	20.17	100.85
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.54	6.95	29.97	10.12	50.58
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.54	9.63	90.01	25.79	128.97
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	76.53	3.73	217.02	74.32	371.60
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	76.53	7.90	851.20	233.91	1,169.53
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	63.89	3.73	104.11	42.93	214.66
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	63.89	7.90	333.67	101.36	506.82
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	63.89	3.73	144.68	53.07	265.37
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	63.89	7.90	568.32	160.03	800.14
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.41	81.62	193.86	71.22	356.11
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.41	81.62	233.86	81.22	406.10
610b	RIGHT OF WAY MARKER	EACH	102.51	121.33	299.32	130.79	653.95
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	640.99	976.31	2,009.70	906.75	4,533.75
610d	TEN KILOMETRE POST	EACH	1,224.53	1,952.61	4,414.31	1,897.86	9,489.32
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	135.53	91.00	952.71	294.81	1,474.05

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

BANNU
(06)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Bannu **District Code: 06**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.61	10.10	-	2.68	13.39
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.47	173.32	1.17	45.24	226.20
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	17.93	456.54	2.63	119.27	596.37
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	71.71	1,826.16	10.51	477.10	2,385.48
103	STRIPPING	CM	2.37	93.22	-	23.90	119.49
104	COMPACTION OF NATURAL GROUND	SM	0.34	9.91	0.76	2.75	13.77
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.73	135.76	-	35.12	175.61
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	119.86	316.30	50.82	121.74	608.72
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	15.88	337.99	-	88.47	442.34
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.44	262.40	-	68.21	341.05
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.87	120.27	-	31.04	155.18
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	119.86	316.30	50.82	121.74	608.72
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	19.06	316.03	-	83.77	418.86
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.10	263.92	-	68.01	340.03
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.50	137.60	0.38	36.37	181.85
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	56.09	287.11	70.80	103.50	517.52
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	105.87	427.01	33.88	141.69	708.46
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	88.71	292.53	-	95.31	476.56
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	54.45	238.86	-	73.33	366.64
107d	GRANULAR BACK FILL	CM	30.39	137.14	340.81	127.08	635.42
107e	COMMON BACK FILL	CM	20.82	62.84	5.09	22.19	110.93
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.60	174.71	5.09	46.60	233.01
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	18.71	482.48	54.04	138.81	694.04
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	14.03	416.71	2.42	108.29	541.45
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	12.47	369.34	-	95.45	477.27
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.35	177.46	7.94	48.19	240.94
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.95	76.32	5.09	21.84	109.20
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	13.31	110.29	3.03	31.66	158.28
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.32	27.34	1.46	7.53	37.65

District: Bannu **District Code: 06**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.99	18.21	0.77	4.99	24.96
110	IMPROVED SUB-GRADE	CM	9.43	120.02	55.47	46.23	231.15
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.81	15.26	0.79	4.21	21.07
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.20	15.57	0.90	4.42	22.08
201	GRANULAR SUB-BASE	CM	7.48	255.06	456.69	179.81	899.03
202	AGGREGATE BASE	CM	9.04	326.54	701.45	259.26	1,296.29
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	60.93	1,510.17	6,175.96	1,936.76	9,683.82
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	63.29	1,510.17	6,637.76	2,052.80	10,264.01
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	67.89	1,577.28	6,165.88	1,952.76	9,763.81
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	67.89	1,571.31	6,787.17	2,106.59	10,532.96
204b	CEMENT STABILIZED BASE	CM	26.94	569.10	1,007.07	400.78	2,003.89
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	225.34	915.38	54,580.23	13,930.24	69,651.19
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	225.34	915.38	53,002.10	13,535.71	67,678.53
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	76.02	112.80	1,020.83	302.41	1,512.06
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	130.07	2,437.94	5,897.02	2,116.26	10,581.30
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	82.54	126.27	819.51	257.08	1,285.41
207a	DEEP PATCHING (0-15 cm)	SM	1.68	45.04	1.26	11.99	59.96
207b	DEEP PATCHING (16-30 cm)	SM	1.68	39.67	1.26	10.65	53.26
208	REINSTATEMENT OF ROAD SURFACE	SM	1.80	57.10	0.56	14.87	74.33
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.20	110.61	0.68	28.37	141.87
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.44	22.12	0.14	5.67	28.37
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.28	1.57	38.74	10.15	50.74
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.27	1.57	43.24	11.27	56.36
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	16.21	4.23	21.13
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	18.91	4.90	24.51
304a	SINGLE SURFACE TREATMENT	SM	0.73	7.57	77.52	21.46	107.28
304b	DOUBLE SURFACE TREATMENT	SM	1.06	14.15	150.81	41.51	207.53
304c	TRIPLE SURFACE TREATMENT	SM	1.81	19.94	172.05	48.45	242.24
304d	SEAL COAT	SM	0.68	4.12	54.25	14.76	73.81

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	58.58	1,489.33	7,271.71	2,204.91	11,024.53
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	58.58	1,438.23	7,847.43	2,336.06	11,680.30
307a	DENSE GRADED HOT BIT-MAC	CM	143.88	379.77	6,033.35	1,639.25	8,196.25
307b	OPEN GRADED HOT BIT-MAC	CM	143.88	379.77	5,901.23	1,606.22	8,031.11
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	26.26	590.65	2,127.90	686.20	3,431.01
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	23.97	650.70	46,705.36	11,845.01	59,225.03
309a	COLD MILLING, 0 - 30 mm	SM	0.91	24.99	8.68	8.65	43.23
309b	COLD MILLING, 0 - 50 mm	SM	1.52	41.65	14.46	14.41	72.05
309c	COLD MILLING, 0 - 70 mm	SM	2.28	62.48	21.69	21.61	108.07
401a1i	CONCRETE CLASS "A1" (Underground)	CM	478.21	1,059.94	4,023.06	1,390.30	6,951.52
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	478.21	1,059.94	4,300.54	1,459.67	7,298.36
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	478.21	1,059.94	4,855.48	1,598.41	7,992.04
401a2i	CONCRETE CLASS "A2" (Underground)	CM	478.21	1,059.94	4,401.06	1,484.80	7,424.02
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	478.21	1,059.94	4,678.54	1,554.17	7,770.86
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	478.21	1,059.94	5,233.48	1,692.91	8,464.54
401a3i	CONCRETE CLASS "A3" (Underground)	CM	478.21	1,059.94	4,779.06	1,579.30	7,896.52
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	478.21	1,059.94	5,056.54	1,648.67	8,243.36
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	478.21	1,059.94	5,611.48	1,787.41	8,937.04
401b	CONCRETE CLASS "B"	CM	628.71	805.93	3,339.12	1,193.44	5,967.20
401ci	CONCRETE CLASS "C" (Underground)	CM	468.51	500.55	3,636.33	1,151.35	5,756.74
401cii	CONCRETE CLASS "C" (On ground)	CM	468.51	500.55	3,754.67	1,180.93	5,904.67
401ciii	CONCRETE CLASS "C" (Elevated)	CM	468.51	500.55	3,991.36	1,240.10	6,200.52
401d	CONCRETE CLASS "D1"	CM	719.69	1,265.57	5,366.12	1,837.85	9,189.23
401e	CONCRETE CLASS "Y"	CM	968.35	500.55	4,779.57	1,562.12	7,810.59
401f	LEAN CONCRETE	CM	386.26	507.52	2,610.45	876.06	4,380.28
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,544.99	947.15	5,024.80	1,879.24	9,396.18
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,544.99	947.15	5,780.80	2,068.24	10,341.18
401gii	PRECAST CONCRETE CLASS "B"	CM	1,544.99	947.15	4,872.67	1,841.20	9,206.02
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,544.99	947.15	6,158.80	2,162.74	10,813.68

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,544.99	947.15	6,536.80	2,257.24	11,286.18
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,544.99	947.15	6,914.80	2,351.74	11,758.68
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,404.37	781.47	61,478.00	15,915.96	79,579.80
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,404.37	781.47	68,828.00	17,753.46	88,767.30
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,116.38	5,393.81	56,979.33	15,872.38	79,361.90
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,680.32	15,659.05	133,860.48	38,049.96	190,249.81
405b	LAUNCHING OF GIRDER	TON	63.07	532.52	-	148.90	744.49
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	97.59	-	305.06	100.66	503.31
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	97.59	-	304.27	100.47	502.33
406c	STEEL EXPANSION JOINTS	KG	7.81	26.40	91.98	31.55	157.73
406d	WATER STOPS 6" SIZE	M	90.10	-	469.93	140.01	700.04
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	40.00	-	3,061.21	775.30	3,876.51
406g	STEEL OR METAL BEARING DEVICES	KG	16.68	69.68	119.64	51.50	257.50
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	347.81	1,654.04	900.65	725.62	3,628.12
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	521.71	2,481.06	1,350.97	1,088.44	5,442.19
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	521.71	2,481.06	999.02	1,000.45	5,002.25
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	869.52	4,135.11	1,177.00	1,545.41	7,727.04
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	745.31	4,884.94	1,357.91	1,747.04	8,735.20
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,304.29	6,909.78	1,490.98	2,426.26	12,131.31
407h	PILE LOAD TEST UP TO 120 TON	EACH	18,410.39	45,769.30	92,271.26	39,112.74	195,563.69
407i	PILE LOAD TEST UP TO 240 TON	EACH	33,575.21	45,769.30	184,542.52	65,971.76	329,858.79
407j	PILE LOAD TEST UP TO 360 TON	EACH	48,740.03	50,188.38	276,813.78	93,935.55	469,677.74
407k	CONFIRMATORY BORING (NX SIZE)	M	179.28	1,582.02	6.37	441.92	2,209.59
410	BRICK WORK	CM	314.26	282.72	3,081.68	919.66	4,598.32
411a	STONE MASONRY RANDOM DRY	CM	266.98	107.96	488.09	215.76	1,078.79
411b	STONE MASONRY RANDOM WITH MORTAR	CM	289.95	166.68	1,599.02	513.91	2,569.56
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	346.63	107.96	544.22	249.70	1,248.51
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	409.43	166.68	1,645.04	555.29	2,776.44

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	67.49	11.74	45.16	31.10	155.50
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	545.76	264.08	1,550.23	590.02	2,950.10
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	192.60	437.48	646.04	319.03	1,595.15
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	186.03	577.19	837.34	400.14	2,000.69
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	188.33	935.96	1,073.55	549.46	2,747.30
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	194.19	1,146.39	1,602.55	735.78	3,678.91
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	222.93	1,078.41	2,302.19	900.88	4,504.42
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	277.58	1,331.30	3,620.79	1,307.42	6,537.09
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	359.23	1,481.41	4,686.72	1,631.84	8,159.19
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	419.79	1,798.85	5,972.23	2,047.72	10,238.59
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	499.25	2,098.66	9,222.77	2,955.17	14,775.85
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	192.60	507.33	727.39	356.83	1,784.15
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	186.03	577.19	856.16	404.84	2,024.22
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	182.54	935.96	1,048.13	541.66	2,708.29
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	194.19	1,146.39	1,747.05	771.91	3,859.53
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	222.93	1,078.41	3,320.84	1,155.55	5,777.73
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	277.58	1,331.30	4,878.10	1,621.75	8,108.73
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	359.23	1,481.41	6,815.15	2,163.94	10,819.72
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	419.79	1,798.85	9,242.51	2,865.29	14,326.44
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	499.25	2,098.66	13,001.63	3,899.89	19,499.43
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	78.15	118.93	315.27	128.09	640.43
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	704.80	612.95	3,689.12	1,251.72	6,258.59
507a	STEEL WIRE MESH FOR GABIONS	KG	4.48	-	109.44	28.48	142.41
507b	ROCK FILL IN GABIONS	CM	80.62	-	317.63	99.56	497.80
508a	BRICK PAVING (SINGLE COURSE)	SM	100.44	32.70	239.43	93.14	465.72
508b	BRICK PAVING (DOUBLE COURSE)	SM	180.10	32.70	476.03	172.21	861.03
509a	RIP RAP CLASS "A"	CM	442.33	-	393.29	208.90	1,044.52
509b	RIP RAP CLASS "B"	CM	424.32	-	390.14	203.62	1,018.08
509c	RIP RAP CLASS "C"	CM	427.64	-	393.29	205.23	1,026.16

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	537.79	102.14	1,839.13	619.77	3,098.83
509e	GROUTED RIP RAP CLASS "B"	CM	519.08	81.72	1,685.80	571.65	2,858.23
509f	GROUTED RIP RAP CLASS "C"	CM	512.22	68.10	1,732.48	578.20	2,891.00
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	730.30	353.02	4,247.16	1,332.62	6,663.10
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	40.28	191.97	341.03	143.32	716.61
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	98.99	390.69	-	122.42	612.10
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	139.51	67.48	63.91	67.72	338.62
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	178.58	86.37	81.80	86.69	433.44
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	228.82	180.32	374.93	196.02	980.10
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	286.03	225.40	468.67	245.02	1,225.12
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	253.36	572.25	2,250.81	769.10	3,845.52
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	849.29	670.54	4,131.20	1,412.76	7,063.79
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	123.93	90.27	438.18	163.09	815.47
603	BRICK EDGING	M	8.02	-	38.40	11.61	58.03
604a	METAL GUARD RAIL	M	18.07	70.84	1,579.36	417.07	2,085.34
604b	METAL GUARD RAIL END PIECES	EACH	24.03	-	1,197.58	305.40	1,527.00
604d	STEEL POST OF METAL GUARD RAIL	EACH	85.29	976.73	3,776.31	1,209.58	6,047.91
605a	CONCRETE BEAM GUARD RAIL	M	62.31	30.82	600.21	173.33	866.67
605c	CONCRETE POST FOR GUARD RAIL	M	76.51	27.36	601.41	176.32	881.60
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	200.61	255.15	6,867.38	1,830.79	9,153.93
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	67.97	382.72	9,280.50	2,432.80	12,163.99
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	200.61	541.89	11,926.37	3,167.22	15,836.08
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	618.00	598.64	21,016.48	5,558.28	27,791.41
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	123.60	119.73	9,225.18	2,367.13	11,835.64
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	250.16	-	1,303.98	388.53	1,942.67
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	250.16	-	1,955.96	551.53	2,757.65
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.54	5.86	16.17	6.14	30.71
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.85	4.03	39.77	11.16	55.81
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.54	5.86	21.58	7.49	37.47

District: Bannu **District Code: 06**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.85	4.03	53.05	14.48	72.40
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	59.69	5.22	156.28	55.30	276.48
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	59.69	9.98	501.20	142.72	713.60
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.17	8.59	22.49	8.56	42.81
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.17	9.63	67.50	20.08	100.39
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.17	6.95	29.99	10.03	50.14
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.17	9.63	90.01	25.70	128.51
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	59.69	3.73	217.14	70.14	350.69
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	59.69	7.90	851.20	229.70	1,148.49
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	50.50	3.73	104.19	39.60	198.02
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	50.50	7.90	334.64	98.26	491.30
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	50.50	3.73	144.76	49.75	248.73
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	50.50	7.90	568.32	156.68	783.40
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.51	81.62	193.91	71.26	356.30
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.51	81.62	233.91	81.26	406.29
610b	RIGHT OF WAY MARKER	EACH	86.18	121.33	304.13	127.91	639.55
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	525.23	976.31	2,056.66	889.55	4,447.75
610d	TEN KILOMETRE POST	EACH	989.20	1,952.61	4,506.63	1,862.11	9,310.54
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	122.66	91.00	957.79	292.86	1,464.32

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

BUNEER
(07-A)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Buneer **District Code: 7-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.64	11.11	-	2.94	14.69
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.87	190.65	1.28	49.70	248.50
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	18.92	502.19	2.89	131.00	655.00
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	75.67	2,008.78	11.56	524.00	2,620.01
103	STRIPPING	CM	2.54	102.54	-	26.27	131.35
104	COMPACTION OF NATURAL GROUND	SM	0.37	10.90	0.84	3.03	15.13
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.18	149.33	-	38.63	193.15
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	129.72	347.93	55.90	133.39	666.94
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	17.06	371.79	-	97.21	486.07
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	11.25	288.63	-	74.97	374.86
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.24	132.30	-	34.13	170.67
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	129.72	347.93	55.90	133.39	666.94
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	20.64	347.63	-	92.07	460.34
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.71	290.32	-	74.76	373.78
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.16	151.36	0.42	39.99	199.93
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	63.16	315.83	77.89	114.22	571.09
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	114.67	469.72	37.27	155.41	777.06
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	95.97	321.79	-	104.44	522.20
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	58.97	262.75	-	80.43	402.15
107d	GRANULAR BACK FILL	CM	32.46	150.85	374.89	139.55	697.76
107e	COMMON BACK FILL	CM	21.83	69.12	5.60	24.14	120.69
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.14	192.18	5.60	51.23	256.15
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	20.09	530.73	59.45	152.57	762.83
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	15.07	458.38	2.66	119.03	595.14
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	13.39	406.28	-	104.92	524.59
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.91	195.20	8.73	52.96	264.81
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.42	83.95	5.60	23.99	119.96
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	14.25	121.32	3.33	34.72	173.62
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.43	30.07	1.60	8.27	41.37

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.06	20.03	0.85	5.49	27.43
110	IMPROVED SUB-GRADE	CM	10.12	132.02	61.15	50.82	254.12
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.86	16.79	0.87	4.63	23.15
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.29	17.13	0.99	4.85	24.25
201	GRANULAR SUB-BASE	CM	7.84	272.91	488.65	192.35	961.76
202	AGGREGATE BASE	CM	9.52	349.40	738.27	274.30	1,371.48
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	62.56	1,615.88	6,223.24	1,975.42	9,877.10
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	65.08	1,615.88	6,685.49	2,091.61	10,458.07
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	69.89	1,687.69	6,212.77	1,992.59	9,962.95
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	69.89	1,681.30	6,840.53	2,147.93	10,739.65
204b	CEMENT STABILIZED BASE	CM	28.22	608.94	954.96	398.03	1,990.14
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	237.22	979.45	55,307.88	14,131.14	70,655.69
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	237.22	979.45	53,619.29	13,708.99	68,544.95
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	77.06	120.69	963.10	290.21	1,451.06
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	134.71	2,608.60	5,956.16	2,174.87	10,874.33
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	83.51	135.11	788.03	251.66	1,258.31
207a	DEEP PATCHING (0-15 cm)	SM	1.76	48.19	1.34	12.82	64.11
207b	DEEP PATCHING (16-30 cm)	SM	1.76	42.45	1.34	11.39	56.94
208	REINSTATEMENT OF ROAD SURFACE	SM	1.89	61.10	0.60	15.90	79.49
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.33	118.35	0.73	30.35	151.77
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.47	23.67	0.15	6.07	30.35
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.29	1.68	39.25	10.31	51.54
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.28	1.68	43.82	11.45	57.23
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	16.43	4.29	21.46
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	19.17	4.98	24.88
304a	SINGLE SURFACE TREATMENT	SM	0.77	8.10	77.73	21.65	108.25
304b	DOUBLE SURFACE TREATMENT	SM	1.12	15.14	150.57	41.71	208.55
304c	TRIPLE SURFACE TREATMENT	SM	1.91	21.33	171.70	48.74	243.68
304d	SEAL COAT	SM	0.71	4.41	54.77	14.97	74.87

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	60.48	1,593.58	7,318.59	2,243.16	11,215.81
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	60.48	1,538.91	7,892.89	2,373.07	11,865.34
307a	DENSE GRADED HOT BIT-MAC	CM	147.67	406.36	6,023.18	1,644.30	8,221.51
307b	OPEN GRADED HOT BIT-MAC	CM	147.67	406.36	5,886.71	1,610.18	8,050.92
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	27.01	631.99	2,179.20	709.55	3,547.75
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	24.99	696.25	46,789.90	11,877.79	59,388.93
309a	COLD MILLING, 0 - 30 mm	SM	0.96	26.74	9.28	9.25	46.23
309b	COLD MILLING, 0 - 50 mm	SM	1.60	44.57	15.47	15.41	77.05
309c	COLD MILLING, 0 - 70 mm	SM	2.40	66.86	23.21	23.11	115.57
401a1i	CONCRETE CLASS "A1" (Underground)	CM	519.72	1,112.93	4,079.84	1,428.12	7,140.61
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	519.72	1,112.93	4,371.18	1,500.96	7,504.79
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	519.72	1,112.93	4,953.87	1,646.63	8,233.16
401a2i	CONCRETE CLASS "A2" (Underground)	CM	519.72	1,112.93	4,476.74	1,527.35	7,636.73
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	519.72	1,112.93	4,768.08	1,600.18	8,000.92
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	519.72	1,112.93	5,350.77	1,745.86	8,729.28
401a3i	CONCRETE CLASS "A3" (Underground)	CM	519.72	1,112.93	4,873.64	1,626.57	8,132.86
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	519.72	1,112.93	5,164.98	1,699.41	8,497.04
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	519.72	1,112.93	5,747.67	1,845.08	9,225.41
401b	CONCRETE CLASS "B"	CM	654.91	846.23	3,331.64	1,208.19	6,040.97
401ci	CONCRETE CLASS "C" (Underground)	CM	498.50	525.57	3,638.41	1,165.62	5,828.11
401cii	CONCRETE CLASS "C" (On ground)	CM	498.50	525.57	3,762.67	1,196.69	5,983.43
401ciii	CONCRETE CLASS "C" (Elevated)	CM	498.50	525.57	4,011.19	1,258.82	6,294.08
401d	CONCRETE CLASS "D1"	CM	806.92	1,328.84	5,500.04	1,908.95	9,544.75
401e	CONCRETE CLASS "Y"	CM	1,091.81	525.57	4,891.71	1,627.27	8,136.37
401f	LEAN CONCRETE	CM	393.74	532.89	2,565.36	873.00	4,364.99
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,626.16	994.51	5,120.44	1,935.28	9,676.38
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,626.16	994.51	5,914.24	2,133.73	10,668.63
401gii	PRECAST CONCRETE CLASS "B"	CM	1,626.16	994.51	4,933.12	1,888.45	9,442.24
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,626.16	994.51	6,311.14	2,232.95	11,164.75

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,626.16	994.51	6,708.04	2,332.18	11,660.88
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,626.16	994.51	7,104.94	2,431.40	12,157.00
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,603.90	820.55	63,772.80	16,549.31	82,746.56
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,603.90	820.55	71,490.30	18,478.69	92,393.44
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,275.65	5,663.50	59,328.57	16,566.93	82,834.66
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,724.95	16,442.00	140,581.54	39,937.12	199,685.61
405b	LAUNCHING OF GIRDER	TON	63.87	559.15	-	155.75	778.77
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.38	-	319.92	107.08	535.38
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.38	-	318.85	106.81	534.04
406c	STEEL EXPANSION JOINTS	KG	8.91	27.72	95.96	33.15	165.74
406d	WATER STOPS 6" SIZE	M	99.50	-	496.64	149.03	745.17
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.23	0.56	2.80
406f	ASPHALT FELT (3 PLY)	SM	39.41	-	3,189.00	807.10	4,035.52
406g	STEEL OR METAL BEARING DEVICES	KG	17.86	73.17	124.08	53.78	268.88
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	352.77	1,736.74	945.27	758.70	3,793.48
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	529.16	2,605.12	1,417.90	1,138.05	5,690.23
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	529.16	2,605.12	1,048.29	1,045.64	5,228.21
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	881.93	4,341.86	1,234.71	1,614.63	8,073.13
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	755.94	5,129.19	1,424.35	1,827.37	9,136.85
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,322.90	7,255.27	1,563.82	2,535.50	12,677.49
407h	PILE LOAD TEST UP TO 120 TON	EACH	18,298.32	48,057.77	96,884.82	40,810.23	204,051.14
407i	PILE LOAD TEST UP TO 240 TON	EACH	33,188.79	48,057.77	193,769.65	68,754.05	343,770.26
407j	PILE LOAD TEST UP TO 360 TON	EACH	48,079.27	52,697.80	290,654.47	97,857.89	489,289.43
407k	CONFIRMATORY BORING (NX SIZE)	M	178.98	1,661.12	6.68	461.70	2,308.48
410	BRICK WORK	CM	306.69	296.86	3,529.64	1,033.30	5,166.48
411a	STONE MASONRY RANDOM DRY	CM	262.96	113.36	437.90	203.55	1,017.77
411b	STONE MASONRY RANDOM WITH MORTAR	CM	285.07	175.02	1,545.15	501.31	2,506.55
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	340.28	113.36	497.04	237.67	1,188.35
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	401.06	175.02	1,608.49	546.14	2,730.70

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	65.46	12.33	46.43	31.06	155.28
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	533.58	277.29	1,508.95	579.95	2,899.77
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	196.68	472.48	695.82	341.25	1,706.23
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	189.59	623.36	902.05	428.75	2,143.74
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	193.44	1,010.84	1,156.77	590.26	2,951.30
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	199.06	1,238.10	1,727.64	791.20	3,956.00
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	229.02	1,164.69	2,483.25	969.24	4,846.21
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	285.50	1,437.80	3,905.96	1,407.32	7,036.58
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	369.48	1,599.92	5,057.17	1,756.64	8,783.22
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	432.40	1,942.76	6,444.57	2,204.93	11,024.67
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	513.68	2,266.55	9,954.24	3,183.62	15,918.09
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	196.68	547.92	781.77	381.59	1,907.97
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	189.59	623.36	922.37	433.83	2,169.15
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	187.59	1,010.84	1,129.32	581.94	2,909.68
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	199.06	1,238.10	1,884.39	830.39	4,151.94
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	229.02	1,164.69	3,583.05	1,244.19	6,220.95
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	285.50	1,437.80	5,263.85	1,746.79	8,733.95
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	369.48	1,599.92	7,355.88	2,331.32	11,656.60
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	432.40	1,942.76	9,976.47	3,087.91	15,439.54
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	513.68	2,266.55	14,035.41	4,203.91	21,019.56
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	80.98	128.44	340.49	137.48	687.39
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	773.04	661.98	3,804.83	1,309.96	6,549.82
507a	STEEL WIRE MESH FOR GABIONS	KG	5.10	-	120.81	31.48	157.38
507b	ROCK FILL IN GABIONS	CM	82.86	-	398.48	120.33	601.67
508a	BRICK PAVING (SINGLE COURSE)	SM	101.23	35.32	298.25	108.70	543.50
508b	BRICK PAVING (DOUBLE COURSE)	SM	180.76	35.32	593.44	202.38	1,011.89
509a	RIP RAP CLASS "A"	CM	444.83	-	348.02	198.21	991.06
509b	RIP RAP CLASS "B"	CM	426.29	-	345.23	192.88	964.41
509c	RIP RAP CLASS "C"	CM	429.10	-	348.02	194.28	971.40

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	540.84	110.32	1,871.46	630.65	3,153.27
509e	GROUTED RIP RAP CLASS "B"	CM	521.30	88.25	1,710.43	580.00	2,899.99
509f	GROUTED RIP RAP CLASS "C"	CM	513.95	73.54	1,758.82	586.58	2,932.89
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	750.93	381.27	4,416.66	1,387.21	6,936.07
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	41.47	207.33	368.32	154.28	771.40
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	101.82	421.95	-	130.94	654.71
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	141.31	72.87	56.55	67.68	338.42
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	180.88	93.28	72.39	86.64	433.18
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	230.89	194.75	377.32	200.74	1,003.70
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	288.61	243.44	471.66	250.93	1,254.63
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	280.93	613.92	2,333.98	807.21	4,036.03
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	912.38	711.97	4,321.15	1,486.37	7,431.87
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	132.05	97.09	452.55	170.42	852.11
603	BRICK EDGING	M	7.72	-	45.53	13.31	66.57
604a	METAL GUARD RAIL	M	17.83	72.26	1,610.95	425.26	2,126.29
604b	METAL GUARD RAIL END PIECES	EACH	23.35	-	1,221.53	311.22	1,556.10
604d	STEEL POST OF METAL GUARD RAIL	EACH	84.69	996.27	3,851.83	1,233.20	6,165.99
605a	CONCRETE BEAM GUARD RAIL	M	62.15	31.44	603.55	174.29	871.43
605c	CONCRETE POST FOR GUARD RAIL	M	76.31	27.91	603.31	176.88	884.41
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	200.77	260.25	6,990.19	1,862.80	9,314.02
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	65.01	390.38	9,432.97	2,472.09	12,360.45
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	200.77	552.72	12,108.52	3,215.50	16,077.52
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	613.45	610.62	21,352.47	5,644.13	28,220.67
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	122.69	122.12	9,391.72	2,409.13	12,045.67
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	271.91	-	1,329.94	400.46	2,002.31
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	271.91	-	1,994.91	566.71	2,833.53
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.50	5.98	16.49	6.24	31.20
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.83	4.11	40.51	11.36	56.81
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.50	5.98	22.00	7.62	38.10

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.83	4.11	54.03	14.74	73.71
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.14	5.32	159.35	58.70	293.50
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.14	10.18	510.48	147.70	738.50
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.12	8.76	22.93	8.70	43.52
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.12	9.82	68.85	20.45	102.25
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.12	7.09	30.58	10.20	50.98
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.12	9.82	91.81	26.19	130.94
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.14	3.80	221.42	73.84	369.20
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.14	8.06	868.22	236.60	1,183.02
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	58.42	3.80	106.23	42.11	210.56
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	58.42	8.06	340.84	101.83	509.14
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	58.42	3.80	147.61	52.46	262.29
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	58.42	8.06	579.69	161.54	807.71
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.17	83.25	197.71	72.53	362.66
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.17	83.25	238.51	82.73	413.67
610b	RIGHT OF WAY MARKER	EACH	84.33	123.75	303.75	127.96	639.79
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	537.79	995.83	2,040.17	893.45	4,467.24
610d	TEN KILOMETRE POST	EACH	1,028.70	1,991.66	4,484.05	1,876.10	9,380.52
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	123.92	95.67	983.15	300.68	1,503.42

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

BUTTGRAM
(07-B)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.79	11.11	-	2.98	14.88
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	8.32	190.65	1.28	50.06	250.32
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	23.27	502.19	2.89	132.09	660.44
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	93.09	2,008.78	11.56	528.36	2,641.78
103	STRIPPING	CM	2.85	102.54	-	26.35	131.74
104	COMPACTION OF NATURAL GROUND	SM	0.42	10.90	0.84	3.04	15.19
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	6.01	149.33	-	38.84	194.18
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	161.10	347.93	55.90	141.23	706.16
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	21.39	371.79	-	98.30	491.48
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	14.09	288.63	-	75.68	378.40
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.92	132.30	-	34.30	171.52
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	161.10	347.93	55.90	141.23	706.16
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	25.82	347.63	-	93.36	466.82
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	10.82	290.32	-	75.28	376.42
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	9.12	151.36	0.42	40.23	201.13
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	71.46	315.83	77.89	116.29	581.46
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	143.47	469.72	37.27	162.61	813.07
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	121.06	321.79	-	110.71	553.56
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	73.78	262.75	-	84.13	420.67
107d	GRANULAR BACK FILL	CM	40.90	150.85	497.93	172.42	862.10
107e	COMMON BACK FILL	CM	27.39	69.12	5.60	25.53	127.63
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	8.59	192.18	5.60	51.59	257.97
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	24.45	530.73	59.45	153.66	768.28
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	18.34	458.38	2.66	119.85	599.23
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	16.30	406.28	-	105.64	528.22
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	9.61	195.20	8.73	53.39	266.93
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.59	83.95	5.60	24.28	121.42
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	16.98	121.32	3.33	35.41	177.03
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.71	30.07	1.60	8.35	41.73

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.22	20.03	0.85	5.52	27.62
110	IMPROVED SUB-GRADE	CM	12.08	132.02	61.26	51.34	256.71
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.98	16.79	0.87	4.66	23.30
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.46	17.13	0.99	4.89	24.46
201	GRANULAR SUB-BASE	CM	9.63	272.91	573.09	213.91	1,069.54
202	AGGREGATE BASE	CM	12.03	349.40	860.09	305.38	1,526.91
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	80.37	1,615.88	6,459.09	2,038.83	10,194.17
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	83.88	1,615.88	6,897.41	2,149.29	10,746.46
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	89.49	1,687.69	6,448.52	2,056.43	10,282.13
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	89.49	1,681.30	7,053.73	2,206.13	11,030.65
204b	CEMENT STABILIZED BASE	CM	35.80	608.94	1,146.64	447.84	2,239.22
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	286.50	979.45	56,312.93	14,394.72	71,973.60
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	286.50	979.45	54,624.34	13,972.57	69,862.86
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	97.62	120.69	1,004.34	305.66	1,528.32
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	169.85	2,608.60	6,106.46	2,221.23	11,106.14
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	108.02	135.11	834.88	269.50	1,347.52
207a	DEEP PATCHING (0-15 cm)	SM	2.03	48.19	1.34	12.89	64.45
207b	DEEP PATCHING (16-30 cm)	SM	2.03	42.45	1.34	11.46	57.28
208	REINSTATEMENT OF ROAD SURFACE	SM	2.32	61.10	0.60	16.01	80.03
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.45	118.35	0.73	30.38	151.92
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.49	23.67	0.15	6.08	30.38
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.36	1.68	39.97	10.50	52.52
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.35	1.68	44.61	11.66	58.31
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.15	0.62	16.73	4.37	21.87
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.15	0.62	19.51	5.07	25.35
304a	SINGLE SURFACE TREATMENT	SM	0.97	8.10	79.65	22.18	110.91
304b	DOUBLE SURFACE TREATMENT	SM	1.41	15.14	154.30	42.71	213.57
304c	TRIPLE SURFACE TREATMENT	SM	2.38	21.33	176.07	49.95	249.73
304d	SEAL COAT	SM	0.92	4.41	56.39	15.43	77.15

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	77.57	1,593.58	7,567.55	2,309.68	11,548.38
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	77.57	1,538.91	8,169.44	2,446.48	12,232.39
307a	DENSE GRADED HOT BIT-MAC	CM	187.95	406.36	6,283.20	1,719.38	8,596.88
307b	OPEN GRADED HOT BIT-MAC	CM	187.95	406.36	6,094.61	1,672.23	8,361.15
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	32.28	631.99	2,210.92	718.80	3,593.99
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	29.72	696.25	47,824.81	12,137.69	60,688.47
309a	COLD MILLING, 0 - 30 mm	SM	1.18	26.74	9.28	9.30	46.51
309b	COLD MILLING, 0 - 50 mm	SM	1.97	44.57	15.47	15.50	77.51
309c	COLD MILLING, 0 - 70 mm	SM	2.95	66.86	23.21	23.25	116.27
401a1i	CONCRETE CLASS "A1" (Underground)	CM	555.90	1,112.93	4,287.33	1,489.04	7,445.20
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	555.90	1,112.93	4,578.67	1,561.88	7,809.38
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	555.90	1,112.93	5,161.36	1,707.55	8,537.74
401a2i	CONCRETE CLASS "A2" (Underground)	CM	555.90	1,112.93	4,684.23	1,588.26	7,941.32
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	555.90	1,112.93	4,975.57	1,661.10	8,305.50
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	555.90	1,112.93	5,558.26	1,806.77	9,033.87
401a3i	CONCRETE CLASS "A3" (Underground)	CM	555.90	1,112.93	5,081.13	1,687.49	8,437.45
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	555.90	1,112.93	5,372.47	1,760.33	8,801.63
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	555.90	1,112.93	5,955.16	1,906.00	9,529.99
401b	CONCRETE CLASS "B"	CM	744.54	846.23	3,462.82	1,263.40	6,316.98
401ci	CONCRETE CLASS "C" (Underground)	CM	534.61	525.57	3,815.35	1,218.89	6,094.43
401cii	CONCRETE CLASS "C" (On ground)	CM	534.61	525.57	3,939.61	1,249.95	6,249.75
401ciii	CONCRETE CLASS "C" (Elevated)	CM	534.61	525.57	4,188.13	1,312.08	6,560.40
401d	CONCRETE CLASS "D1"	CM	830.09	1,328.84	5,678.18	1,959.28	9,796.38
401e	CONCRETE CLASS "Y"	CM	1,134.98	525.57	5,109.73	1,692.57	8,462.85
401f	LEAN CONCRETE	CM	452.32	532.89	2,696.93	920.54	4,602.68
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,798.96	994.51	5,354.15	2,036.90	10,184.52
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,798.96	994.51	6,147.95	2,235.35	11,176.77
401gii	PRECAST CONCRETE CLASS "B"	CM	1,798.96	994.51	5,067.11	1,965.14	9,825.72
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,798.96	994.51	6,544.85	2,334.58	11,672.89

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,798.96	994.51	6,941.75	2,433.80	12,169.02
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,798.96	994.51	7,338.65	2,533.03	12,665.14
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,629.09	820.55	64,412.78	16,715.60	83,578.01
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,629.09	820.55	72,130.28	18,644.98	93,224.89
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,342.11	5,663.50	59,879.17	16,721.20	83,605.98
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	3,217.96	16,442.00	140,626.65	40,071.65	200,358.27
405b	LAUNCHING OF GIRDER	TON	73.74	559.15	-	158.22	791.11
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	119.30	-	321.05	110.09	550.44
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	119.30	-	319.98	109.82	549.10
406c	STEEL EXPANSION JOINTS	KG	9.69	27.72	96.51	33.48	167.39
406d	WATER STOPS 6" SIZE	M	95.44	-	497.51	148.24	741.19
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.23	0.56	2.81
406f	ASPHALT FELT (3 PLY)	SM	47.11	-	3,159.40	801.63	4,008.14
406g	STEEL OR METAL BEARING DEVICES	KG	22.84	73.17	124.01	55.00	275.02
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	386.35	1,736.74	1,042.27	791.34	3,956.71
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	579.53	2,605.12	1,563.40	1,187.01	5,935.06
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	579.53	2,605.12	1,145.90	1,082.64	5,413.18
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	965.88	4,341.86	1,333.34	1,660.27	8,301.34
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	827.90	5,129.19	1,523.70	1,870.19	9,350.97
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,448.82	7,255.27	1,675.73	2,594.95	12,974.76
407h	PILE LOAD TEST UP TO 120 TON	EACH	23,946.10	48,057.77	108,824.75	45,207.15	226,035.77
407i	PILE LOAD TEST UP TO 240 TON	EACH	43,488.04	48,057.77	217,649.50	77,298.83	386,494.13
407j	PILE LOAD TEST UP TO 360 TON	EACH	63,029.97	52,697.80	326,474.25	110,550.51	552,752.54
407k	CONFIRMATORY BORING (NX SIZE)	M	212.17	1,661.12	6.68	470.00	2,349.98
410	BRICK WORK	CM	352.02	296.86	3,094.05	935.73	4,678.66
411a	STONE MASONRY RANDOM DRY	CM	296.27	113.36	612.69	255.58	1,277.91
411b	STONE MASONRY RANDOM WITH MORTAR	CM	319.95	175.02	1,798.90	573.47	2,867.33
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	387.05	113.36	679.66	295.02	1,475.08
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	456.11	175.02	1,850.32	620.36	3,101.81

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	74.95	12.33	47.75	33.76	168.79
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	613.99	277.29	1,750.77	660.51	3,302.57
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	241.34	472.48	698.36	353.05	1,765.23
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	233.43	623.36	905.09	440.47	2,202.35
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	235.72	1,010.84	1,160.32	601.72	3,008.59
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	244.74	1,238.10	1,731.79	803.66	4,018.30
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	285.25	1,164.69	2,487.41	984.34	4,921.68
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	358.75	1,437.80	3,911.95	1,427.13	7,135.63
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	464.26	1,599.92	5,063.15	1,781.83	8,909.16
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	546.35	1,942.76	6,451.82	2,235.23	11,176.17
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	649.33	2,266.55	9,962.70	3,219.65	16,098.23
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	241.34	547.92	786.84	394.03	1,970.14
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	233.43	623.36	925.42	445.55	2,227.76
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	230.69	1,010.84	1,132.87	593.60	2,967.99
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	244.74	1,238.10	1,887.62	842.62	4,213.08
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	285.25	1,164.69	3,587.66	1,259.40	6,297.00
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	358.75	1,437.80	5,269.85	1,766.60	8,833.00
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	464.26	1,599.92	7,361.85	2,356.51	11,782.54
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	546.35	1,942.76	9,983.72	3,118.21	15,591.04
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	649.33	2,266.55	14,043.87	4,239.94	21,199.69
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	97.83	128.44	473.70	174.99	874.96
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	838.70	661.98	3,939.75	1,360.11	6,800.55
507a	STEEL WIRE MESH FOR GABIONS	KG	5.99	-	118.20	31.05	155.23
507b	ROCK FILL IN GABIONS	CM	102.16	-	571.73	168.47	842.36
508a	BRICK PAVING (SINGLE COURSE)	SM	119.28	35.32	247.26	100.46	502.32
508b	BRICK PAVING (DOUBLE COURSE)	SM	212.65	35.32	490.06	184.51	922.53
509a	RIP RAP CLASS "A"	CM	519.54	-	527.81	261.84	1,309.19
509b	RIP RAP CLASS "B"	CM	499.27	-	523.59	255.71	1,278.57
509c	RIP RAP CLASS "C"	CM	501.98	-	527.81	257.45	1,287.24

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	635.20	110.32	2,102.01	711.88	3,559.40
509e	GROUTED RIP RAP CLASS "B"	CM	611.27	88.25	1,934.26	658.45	3,292.23
509f	GROUTED RIP RAP CLASS "C"	CM	602.76	73.54	1,985.98	665.57	3,327.86
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	846.94	381.27	4,544.21	1,443.10	7,215.52
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	51.38	207.33	489.54	187.06	935.32
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	113.55	421.95	-	133.87	669.37
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	162.85	72.87	85.77	80.37	401.87
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	208.45	93.28	109.78	102.88	514.39
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	265.28	194.75	424.50	221.13	1,105.67
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	331.60	243.44	530.63	276.42	1,382.08
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	300.75	613.92	2,444.21	839.72	4,198.59
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,006.80	711.97	4,458.68	1,544.36	7,721.82
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	146.78	97.09	473.13	179.25	896.25
603	BRICK EDGING	M	8.95	-	36.23	11.30	56.48
604a	METAL GUARD RAIL	M	20.67	72.26	1,610.95	425.97	2,129.85
604b	METAL GUARD RAIL END PIECES	EACH	25.05	-	1,221.53	311.64	1,558.22
604d	STEEL POST OF METAL GUARD RAIL	EACH	97.45	996.27	3,851.83	1,236.39	6,181.93
605a	CONCRETE BEAM GUARD RAIL	M	73.31	31.44	614.71	179.86	899.32
605c	CONCRETE POST FOR GUARD RAIL	M	90.01	27.91	616.63	183.64	918.18
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	247.33	260.25	7,005.46	1,878.26	9,391.30
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	67.04	390.38	9,470.67	2,482.02	12,410.10
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	247.33	552.72	12,172.27	3,243.08	16,215.41
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	769.36	610.62	21,458.42	5,709.60	28,548.00
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	153.87	122.12	9,426.66	2,425.67	12,128.33
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	301.69	-	1,333.85	408.89	2,044.43
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	301.69	-	2,000.78	575.62	2,878.09
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.74	5.98	16.51	6.31	31.53
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.91	4.11	40.65	11.42	57.10
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.74	5.98	22.02	7.68	38.42

District: Buttgram **District Code: 7-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.91	4.11	54.22	14.81	74.06
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.75	5.32	159.49	59.39	296.95
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.75	10.18	512.30	148.81	744.05
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.42	8.76	22.95	8.78	43.91
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.42	9.82	68.85	20.53	102.63
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.42	7.09	30.60	10.28	51.39
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.42	9.82	91.81	26.26	131.32
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.75	3.80	221.56	74.53	372.64
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.75	8.06	868.22	237.26	1,186.29
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	60.82	3.80	106.32	42.74	213.68
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	60.82	8.06	342.05	102.73	513.66
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	60.82	3.80	147.71	53.08	265.41
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	60.82	8.06	579.69	162.14	810.70
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.74	83.25	197.81	72.45	362.25
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.74	83.25	238.61	82.65	413.25
610b	RIGHT OF WAY MARKER	EACH	101.67	123.75	313.42	134.71	673.55
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	626.15	995.83	2,123.30	936.32	4,681.60
610d	TEN KILOMETRE POST	EACH	1,200.07	1,991.66	4,647.61	1,959.84	9,799.18
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	135.90	95.67	992.09	305.92	1,529.59

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

CHITRAL
(10)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.70	11.31	-	3.00	15.02
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.36	194.12	1.31	50.70	253.49
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	20.54	511.33	2.94	133.70	668.51
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	82.16	2,045.30	11.77	534.81	2,674.04
103	STRIPPING	CM	2.68	104.40	-	26.77	133.86
104	COMPACTION OF NATURAL GROUND	SM	0.39	11.10	0.86	3.08	15.42
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.30	152.05	-	39.34	196.69
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	142.37	354.26	56.92	138.39	691.93
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	19.30	378.55	-	99.46	497.32
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	12.83	293.88	-	76.68	383.38
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.34	134.70	-	34.76	173.80
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	142.37	354.26	56.92	138.39	691.93
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	22.68	353.95	-	94.16	470.79
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.84	295.59	-	76.36	381.79
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.55	154.11	0.43	40.77	203.86
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	68.93	321.57	79.30	117.45	587.25
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	126.00	478.26	37.95	160.55	802.75
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	106.22	327.64	-	108.46	542.32
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	64.80	267.53	-	83.08	415.41
107d	GRANULAR BACK FILL	CM	35.48	153.60	415.34	151.10	755.52
107e	COMMON BACK FILL	CM	24.03	70.38	5.70	25.03	125.14
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.87	195.67	5.70	52.31	261.56
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	22.18	540.38	60.53	155.77	778.85
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.63	466.72	2.71	121.51	607.57
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.78	413.66	-	107.11	535.56
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.75	198.75	8.89	54.10	270.49
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.04	85.47	5.70	24.55	122.77
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.62	123.52	3.39	35.63	178.17
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.56	30.62	1.63	8.45	42.26

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.14	20.39	0.87	5.60	28.00
110	IMPROVED SUB-GRADE	CM	10.98	134.42	59.28	51.17	255.85
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.92	17.09	0.89	4.73	23.63
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.40	17.44	1.00	4.96	24.80
201	GRANULAR SUB-BASE	CM	8.71	278.02	541.05	206.94	1,034.71
202	AGGREGATE BASE	CM	10.41	355.93	793.62	289.99	1,449.95
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	70.53	1,646.08	6,879.12	2,148.93	10,744.66
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	73.44	1,646.08	7,369.31	2,272.21	11,361.03
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	79.10	1,719.24	6,867.81	2,166.54	10,832.68
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	79.10	1,712.72	7,534.06	2,331.47	11,657.36
204b	CEMENT STABILIZED BASE	CM	31.01	620.32	1,174.29	456.41	2,282.04
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	261.51	997.76	60,681.42	15,485.17	77,425.87
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	261.51	997.76	58,961.26	15,055.13	75,275.67
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	86.75	122.95	1,075.60	321.32	1,606.62
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	150.85	2,657.36	6,494.39	2,325.65	11,628.25
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	94.85	137.64	834.25	266.69	1,333.43
207a	DEEP PATCHING (0-15 cm)	SM	1.90	49.09	1.37	13.09	65.45
207b	DEEP PATCHING (16-30 cm)	SM	1.90	43.25	1.37	11.63	58.15
208	REINSTATEMENT OF ROAD SURFACE	SM	2.04	62.24	0.61	16.22	81.11
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.43	120.57	0.74	30.94	154.68
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.49	24.11	0.15	6.19	30.94
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.32	1.72	43.07	11.28	56.38
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.72	48.07	12.53	62.63
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.63	18.02	4.70	23.48
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.63	21.03	5.45	27.24
304a	SINGLE SURFACE TREATMENT	SM	0.85	8.26	86.26	23.84	119.21
304b	DOUBLE SURFACE TREATMENT	SM	1.24	15.43	167.45	46.03	230.15
304c	TRIPLE SURFACE TREATMENT	SM	2.10	21.73	191.09	53.73	268.65
304d	SEAL COAT	SM	0.79	4.49	60.66	16.48	82.42

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	68.06	1,623.37	8,092.64	2,446.02	12,230.08
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	68.06	1,567.67	8,743.32	2,594.76	12,973.81
307a	DENSE GRADED HOT BIT-MAC	CM	164.59	413.95	6,758.19	1,834.18	9,170.91
307b	OPEN GRADED HOT BIT-MAC	CM	164.59	413.95	6,568.69	1,786.81	8,934.03
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	29.03	643.80	2,341.02	753.46	3,767.31
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	26.27	709.26	52,133.13	13,217.16	66,085.82
309a	COLD MILLING, 0 - 30 mm	SM	1.03	27.24	9.46	9.43	47.16
309b	COLD MILLING, 0 - 50 mm	SM	1.72	45.40	15.76	15.72	78.61
309c	COLD MILLING, 0 - 70 mm	SM	2.58	68.10	23.64	23.58	117.91
401a1i	CONCRETE CLASS "A1" (Underground)	CM	569.68	1,165.93	4,423.58	1,539.80	7,698.99
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	569.68	1,165.93	4,728.80	1,616.10	8,080.51
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	569.68	1,165.93	5,339.24	1,768.71	8,843.56
401a2i	CONCRETE CLASS "A2" (Underground)	CM	569.68	1,165.93	4,839.38	1,643.75	8,218.74
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	569.68	1,165.93	5,144.60	1,720.05	8,600.26
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	569.68	1,165.93	5,755.04	1,872.66	9,363.31
401a3i	CONCRETE CLASS "A3" (Underground)	CM	569.68	1,165.93	5,255.18	1,747.70	8,738.49
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	569.68	1,165.93	5,560.40	1,824.00	9,120.01
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	569.68	1,165.93	6,170.84	1,976.61	9,883.06
401b	CONCRETE CLASS "B"	CM	724.73	886.52	3,591.86	1,300.78	6,503.89
401ci	CONCRETE CLASS "C" (Underground)	CM	546.01	550.60	3,954.63	1,262.81	6,314.05
401cii	CONCRETE CLASS "C" (On ground)	CM	546.01	550.60	4,084.80	1,295.35	6,476.77
401ciii	CONCRETE CLASS "C" (Elevated)	CM	546.01	550.60	4,345.16	1,360.44	6,802.21
401d	CONCRETE CLASS "D1"	CM	877.22	1,392.12	5,891.76	2,040.28	10,201.38
401e	CONCRETE CLASS "Y"	CM	1,199.03	550.60	5,280.72	1,757.59	8,787.95
401f	LEAN CONCRETE	CM	438.15	558.27	2,790.85	946.82	4,734.08
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,801.80	1,041.87	5,531.38	2,093.76	10,468.81
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,801.80	1,041.87	6,362.98	2,301.66	11,508.31
401gii	PRECAST CONCRETE CLASS "B"	CM	1,801.80	1,041.87	5,275.03	2,029.67	10,148.37
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,801.80	1,041.87	6,778.78	2,405.61	12,028.06

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,801.80	1,041.87	7,194.58	2,509.56	12,547.81
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,801.80	1,041.87	7,610.38	2,613.51	13,067.56
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,716.12	859.62	67,625.80	17,550.39	87,751.93
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,716.12	859.62	75,710.80	19,571.64	97,858.18
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,393.08	5,933.20	62,696.24	17,505.63	87,528.14
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,891.00	17,224.95	147,314.08	41,857.51	209,287.54
405b	LAUNCHING OF GIRDER	TON	66.77	585.78	-	163.14	815.68
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	120.09	-	337.83	114.48	572.39
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	120.09	-	336.90	114.25	571.23
406c	STEEL EXPANSION JOINTS	KG	9.91	29.03	101.15	35.02	175.12
406d	WATER STOPS 6" SIZE	M	102.94	-	520.94	155.97	779.85
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.33	0.59	2.94
406f	ASPHALT FELT (3 PLY)	SM	45.48	-	3,377.00	855.62	4,278.10
406g	STEEL OR METAL BEARING DEVICES	KG	20.92	76.65	129.94	56.88	284.39
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	358.17	1,819.45	1,192.20	842.45	4,212.27
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	537.25	2,729.17	1,788.30	1,263.68	6,318.40
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	537.25	2,729.17	1,300.52	1,141.74	5,708.68
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	895.42	4,548.62	1,496.48	1,735.13	8,675.64
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	767.50	5,373.43	1,695.62	1,959.14	9,795.69
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,343.13	7,600.76	1,867.25	2,702.78	13,513.92
407h	PILE LOAD TEST UP TO 120 TON	EACH	21,389.84	50,346.23	103,772.22	43,877.07	219,385.36
407i	PILE LOAD TEST UP TO 240 TON	EACH	38,940.59	50,346.23	207,544.44	74,207.81	371,039.07
407j	PILE LOAD TEST UP TO 360 TON	EACH	56,491.34	55,207.22	311,316.65	105,753.80	528,769.02
407k	CONFIRMATORY BORING (NX SIZE)	M	192.86	1,740.22	7.00	485.02	2,425.11
410	BRICK WORK	CM	349.06	311.00	4,236.76	1,224.20	6,121.02
411a	STONE MASONRY RANDOM DRY	CM	297.37	118.76	473.31	222.36	1,111.80
411b	STONE MASONRY RANDOM WITH MORTAR	CM	322.39	183.35	1,653.97	539.93	2,699.64
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	386.42	118.76	529.98	258.79	1,293.94
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	455.96	183.35	1,709.86	587.29	2,936.47

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	74.86	12.92	48.99	34.19	170.95
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	609.03	290.49	1,605.57	626.27	3,131.37
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	218.18	481.23	709.35	352.19	1,760.95
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	211.13	634.90	919.53	441.39	2,206.95
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	214.93	1,029.55	1,179.10	605.89	3,029.47
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	221.98	1,261.03	1,760.69	810.93	4,054.63
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	256.43	1,186.26	2,530.30	993.25	4,966.23
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	320.85	1,464.43	3,979.82	1,441.27	7,206.37
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	415.22	1,629.55	5,152.35	1,799.28	8,996.39
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	486.32	1,978.74	6,565.76	2,257.71	11,288.53
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	579.20	2,308.53	10,140.73	3,257.12	16,285.58
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	218.18	558.07	797.54	393.45	1,967.23
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	211.13	634.90	940.23	446.56	2,232.82
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	209.51	1,029.55	1,151.14	597.55	2,987.75
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	221.98	1,261.03	1,920.11	850.78	4,253.90
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	256.43	1,186.26	3,650.57	1,273.31	6,366.57
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	320.85	1,464.43	5,362.86	1,787.03	8,935.17
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	415.22	1,629.55	7,493.62	2,384.60	11,922.99
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	486.32	1,978.74	10,163.07	3,157.03	15,785.16
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	579.20	2,308.53	14,297.48	4,296.30	21,481.51
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	87.97	130.82	377.80	149.15	745.74
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	818.35	674.24	3,976.86	1,367.36	6,836.81
507a	STEEL WIRE MESH FOR GABIONS	KG	5.58	-	119.56	31.28	156.42
507b	ROCK FILL IN GABIONS	CM	91.57	-	465.85	139.35	696.77
508a	BRICK PAVING (SINGLE COURSE)	SM	112.77	35.97	364.11	128.21	641.06
508b	BRICK PAVING (DOUBLE COURSE)	SM	201.82	35.97	724.84	240.66	1,203.28
509a	RIP RAP CLASS "A"	CM	494.27	-	369.02	215.82	1,079.12
509b	RIP RAP CLASS "B"	CM	474.46	-	366.07	210.13	1,050.66
509c	RIP RAP CLASS "C"	CM	477.93	-	369.02	211.74	1,058.68

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	602.27	112.36	1,933.60	662.06	3,310.29
509e	GROUTED RIP RAP CLASS "B"	CM	580.87	89.89	1,768.13	609.72	3,048.61
509f	GROUTED RIP RAP CLASS "C"	CM	573.10	74.91	1,818.02	616.51	3,082.53
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	813.36	388.33	4,594.72	1,449.10	7,245.50
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	46.45	211.17	408.19	166.45	832.26
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	102.52	429.76	-	133.07	665.35
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	155.67	74.22	59.97	72.47	362.33
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	199.26	95.01	76.76	92.76	463.78
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	254.90	198.35	401.16	213.60	1,068.01
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	318.62	247.94	501.45	267.00	1,335.02
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	310.99	648.78	2,549.31	877.27	4,386.35
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,019.28	745.57	4,674.05	1,609.73	8,048.63
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	147.67	102.44	492.96	185.77	928.83
603	BRICK EDGING	M	8.41	-	55.37	15.94	79.72
604a	METAL GUARD RAIL	M	18.12	72.97	1,626.74	429.46	2,147.28
604b	METAL GUARD RAIL END PIECES	EACH	22.64	-	1,233.50	314.04	1,570.18
604d	STEEL POST OF METAL GUARD RAIL	EACH	85.54	1,006.03	3,889.60	1,245.29	6,226.46
605a	CONCRETE BEAM GUARD RAIL	M	67.92	31.75	618.76	179.61	898.03
605c	CONCRETE POST FOR GUARD RAIL	M	83.40	28.18	620.14	182.93	914.65
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	225.02	262.80	7,073.94	1,890.44	9,452.21
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	69.06	394.21	9,551.21	2,503.62	12,518.10
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	225.02	558.14	12,270.23	3,263.35	16,316.74
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	690.55	616.60	21,630.70	5,734.46	28,672.31
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	138.11	123.32	9,504.22	2,441.41	12,207.06
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	284.23	-	1,344.76	407.25	2,036.23
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	284.23	-	2,017.13	575.34	2,876.70
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.66	6.03	16.66	6.34	31.70
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.89	4.15	41.00	11.51	57.55
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.66	6.03	22.23	7.73	38.66

District: Chitral **District Code: 10**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.89	4.15	54.69	14.93	74.66
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	75.22	5.37	161.01	60.40	301.99
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	75.22	10.28	516.71	150.55	752.77
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.33	8.85	23.17	8.84	44.18
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.33	9.92	69.53	20.69	103.47
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.33	7.16	30.89	10.34	51.72
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.33	9.92	92.71	26.49	132.44
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	75.22	3.84	223.69	75.69	378.43
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	75.22	8.13	876.74	240.02	1,200.11
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	62.44	3.84	107.34	43.40	217.02
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	62.44	8.13	345.00	103.89	519.46
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	62.44	3.84	149.13	53.85	269.25
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	62.44	8.13	585.37	163.99	819.93
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.64	84.07	199.68	73.35	366.73
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.64	84.06	240.87	83.65	418.23
610b	RIGHT OF WAY MARKER	EACH	92.32	124.97	313.83	132.78	663.89
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	591.34	1,005.59	2,121.89	929.71	4,648.53
610d	TEN KILOMETRE POST	EACH	1,131.56	2,011.19	4,651.41	1,948.54	9,742.70
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	132.91	99.10	1,014.27	311.57	1,557.85

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

CHARSADDAH
(10-A)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.56	10.10	-	2.67	13.33
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	5.84	173.32	1.17	45.08	225.41
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	16.35	456.54	2.63	118.88	594.39
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	65.38	1,826.16	10.51	475.51	2,377.57
103	STRIPPING	CM	2.09	93.22	-	23.83	119.13
104	COMPACTION OF NATURAL GROUND	SM	0.30	9.91	0.84	2.76	13.81
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.07	135.76	-	34.96	174.79
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	106.99	316.30	50.82	118.53	592.64
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	14.34	337.99	-	88.08	440.42
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	9.41	262.40	-	67.95	339.76
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.33	120.27	-	30.90	154.50
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	106.99	316.30	50.82	118.53	592.64
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	17.03	316.03	-	83.27	416.33
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	7.29	263.92	-	67.80	339.02
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.46	137.60	0.42	36.12	180.60
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	53.51	287.11	70.80	102.86	514.29
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	94.63	427.01	33.88	138.88	694.40
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	79.59	292.53	-	93.03	465.16
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	48.67	238.86	-	71.88	359.41
107d	GRANULAR BACK FILL	CM	27.57	137.14	382.09	136.70	683.49
107e	COMMON BACK FILL	CM	19.22	62.84	5.59	21.91	109.56
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	5.86	174.71	5.59	46.54	232.70
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	16.75	482.48	54.36	138.40	691.99
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	12.56	416.71	2.66	107.98	539.91
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	11.17	369.34	-	95.13	475.64
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	6.57	177.46	8.44	48.12	240.59
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.26	76.32	5.59	21.79	108.97
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	11.89	110.29	3.32	31.38	156.88
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.17	27.34	1.60	7.53	37.64

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.86	18.21	0.85	4.98	24.90
110	IMPROVED SUB-GRADE	CM	8.40	120.02	55.91	46.08	230.42
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.71	15.26	0.87	4.21	21.05
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.06	15.57	0.97	4.40	22.00
201	GRANULAR SUB-BASE	CM	6.69	255.06	437.55	174.83	874.13
202	AGGREGATE BASE	CM	8.09	326.54	709.15	260.95	1,304.73
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	56.28	1,510.17	5,991.72	1,889.54	9,447.70
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	58.42	1,510.17	6,404.20	1,993.20	9,965.99
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	62.55	1,577.28	5,981.81	1,905.41	9,527.06
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	62.55	1,571.31	6,550.19	2,046.01	10,230.06
204b	CEMENT STABILIZED BASE	CM	24.26	569.10	1,035.28	407.16	2,035.81
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	200.32	915.38	52,507.71	13,405.85	67,029.26
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	200.32	915.38	50,929.58	13,011.32	65,056.59
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	70.86	112.80	916.96	275.15	1,375.76
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	118.58	2,437.94	5,669.56	2,056.52	10,282.60
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	77.49	126.27	816.11	254.97	1,274.84
207a	DEEP PATCHING (0-15 cm)	SM	1.47	45.04	1.38	11.97	59.86
207b	DEEP PATCHING (16-30 cm)	SM	1.47	39.67	1.38	10.63	53.16
208	REINSTATEMENT OF ROAD SURFACE	SM	1.60	57.10	0.62	14.83	74.15
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	1.87	110.61	0.75	28.31	141.54
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.37	22.12	0.15	5.66	28.31
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.25	1.57	37.27	9.77	48.86
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.24	1.57	41.60	10.85	54.27
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	15.60	4.07	20.35
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	18.20	4.72	23.59
304a	SINGLE SURFACE TREATMENT	SM	0.66	7.57	74.12	20.59	102.94
304b	DOUBLE SURFACE TREATMENT	SM	0.95	14.15	143.51	39.65	198.26
304c	TRIPLE SURFACE TREATMENT	SM	1.61	19.94	163.73	46.32	231.60
304d	SEAL COAT	SM	0.61	4.12	52.48	14.30	71.51

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	53.81	1,489.33	7,025.82	2,142.24	10,711.19
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	53.81	1,438.23	7,584.47	2,269.13	11,345.64
307a	DENSE GRADED HOT BIT-MAC	CM	132.34	379.77	5,826.50	1,584.65	7,923.26
307b	OPEN GRADED HOT BIT-MAC	CM	132.34	379.77	5,655.06	1,541.79	7,708.96
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	23.64	590.65	2,059.20	668.37	3,341.86
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	21.30	650.70	44,571.28	11,310.82	56,554.10
309a	COLD MILLING, 0 - 30 mm	SM	0.82	24.99	8.68	8.62	43.11
309b	COLD MILLING, 0 - 50 mm	SM	1.36	41.65	14.47	14.37	71.85
309c	COLD MILLING, 0 - 70 mm	SM	2.04	62.48	21.70	21.56	107.78
401a1i	CONCRETE CLASS "A1" (Underground)	CM	468.85	1,059.94	4,014.71	1,385.87	6,929.37
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	468.85	1,059.94	4,292.18	1,455.24	7,276.21
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	468.85	1,059.94	4,847.13	1,593.98	7,969.89
401a2i	CONCRETE CLASS "A2" (Underground)	CM	468.85	1,059.94	4,392.71	1,480.37	7,401.87
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	468.85	1,059.94	4,670.18	1,549.74	7,748.71
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	468.85	1,059.94	5,225.13	1,688.48	8,442.39
401a3i	CONCRETE CLASS "A3" (Underground)	CM	468.85	1,059.94	4,770.71	1,574.87	7,874.37
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	468.85	1,059.94	5,048.18	1,644.24	8,221.21
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	468.85	1,059.94	5,603.13	1,782.98	8,914.89
401b	CONCRETE CLASS "B"	CM	586.23	805.93	3,212.17	1,151.08	5,755.42
401ci	CONCRETE CLASS "C" (Underground)	CM	454.48	500.55	3,547.05	1,125.52	5,627.60
401cii	CONCRETE CLASS "C" (On ground)	CM	454.48	500.55	3,665.40	1,155.11	5,775.53
401ciii	CONCRETE CLASS "C" (Elevated)	CM	454.48	500.55	3,902.08	1,214.28	6,071.38
401d	CONCRETE CLASS "D1"	CM	734.94	1,265.57	5,352.43	1,838.24	9,191.18
401e	CONCRETE CLASS "Y"	CM	1,007.25	500.55	4,785.79	1,573.40	7,866.98
401f	LEAN CONCRETE	CM	361.09	507.52	2,473.39	835.50	4,177.49
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,506.02	947.15	5,016.28	1,867.36	9,336.81
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,506.02	947.15	5,772.28	2,056.36	10,281.81
401gii	PRECAST CONCRETE CLASS "B"	CM	1,506.02	947.15	4,751.22	1,801.10	9,005.49
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,506.02	947.15	6,150.28	2,150.86	10,754.31

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,506.02	947.15	6,528.28	2,245.36	11,226.81
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,506.02	947.15	6,906.28	2,339.86	11,699.31
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,445.71	781.47	60,206.00	15,608.29	78,041.47
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,445.71	781.47	67,556.00	17,445.79	87,228.97
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,160.29	5,393.81	56,000.99	15,638.77	78,193.86
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,470.45	15,659.05	133,860.62	37,997.53	189,987.65
405b	LAUNCHING OF GIRDER	TON	58.23	532.52	-	147.69	738.44
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	99.62	-	302.98	100.65	503.25
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	99.62	-	302.17	100.45	502.24
406c	STEEL EXPANSION JOINTS	KG	8.24	26.40	90.85	31.37	156.86
406d	WATER STOPS 6" SIZE	M	88.85	-	472.37	140.30	701.52
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.01	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	36.90	-	3,004.11	760.25	3,801.26
406g	STEEL OR METAL BEARING DEVICES	KG	16.50	69.68	117.83	51.00	255.01
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	319.83	1,654.04	719.98	673.46	3,367.32
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	479.75	2,481.06	1,079.97	1,010.20	5,050.98
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	479.75	2,481.06	819.36	945.04	4,725.21
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	799.58	4,135.11	999.57	1,483.56	7,417.82
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	685.35	4,884.94	1,182.08	1,688.09	8,440.47
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,199.37	6,909.78	1,293.47	2,350.65	11,753.27
407h	PILE LOAD TEST UP TO 120 TON	EACH	17,317.36	45,769.30	99,000.62	40,521.82	202,609.10
407i	PILE LOAD TEST UP TO 240 TON	EACH	31,756.11	45,769.30	198,001.24	68,881.66	344,408.31
407j	PILE LOAD TEST UP TO 360 TON	EACH	46,194.85	50,188.38	297,001.86	98,346.27	491,731.37
407k	CONFIRMATORY BORING (NX SIZE)	M	167.58	1,582.02	6.99	439.15	2,195.74
410	BRICK WORK	CM	289.69	282.72	2,998.75	892.79	4,463.95
411a	STONE MASONRY RANDOM DRY	CM	243.26	107.96	573.28	231.13	1,155.63
411b	STONE MASONRY RANDOM WITH MORTAR	CM	264.33	166.68	1,641.05	518.01	2,590.07
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	317.48	107.96	639.90	266.33	1,331.66
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	375.64	166.68	1,709.41	562.93	2,814.67

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	62.49	11.74	44.49	29.68	148.40
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	503.00	264.08	1,614.60	595.42	2,977.11
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	178.12	437.48	645.37	315.24	1,576.22
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	172.55	577.19	836.46	396.55	1,982.75
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	172.97	935.96	1,072.53	545.36	2,726.82
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	179.12	1,146.39	1,601.53	731.76	3,658.79
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	205.91	1,078.41	2,301.17	896.37	4,481.86
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	256.66	1,331.30	3,619.29	1,301.81	6,509.06
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	332.15	1,481.41	4,685.73	1,624.82	8,124.11
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	388.28	1,798.85	5,971.03	2,039.54	10,197.71
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	462.34	2,098.66	9,221.37	2,945.59	14,727.96
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	178.12	507.33	725.36	352.70	1,763.52
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	172.55	577.19	855.28	401.25	2,006.27
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	168.04	935.96	1,047.11	537.78	2,688.89
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	179.12	1,146.39	1,746.12	767.91	3,839.54
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	205.91	1,078.41	3,319.79	1,151.03	5,755.14
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	256.66	1,331.30	4,876.60	1,616.14	8,080.70
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	332.15	1,481.41	6,814.16	2,156.93	10,784.65
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	388.28	1,798.85	9,241.31	2,857.11	14,285.56
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	462.34	2,098.66	13,000.23	3,890.31	19,451.54
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	70.99	118.93	407.53	149.36	746.81
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	672.70	612.95	3,562.17	1,211.95	6,059.77
507a	STEEL WIRE MESH FOR GABIONS	KG	4.52	-	109.50	28.50	142.52
507b	ROCK FILL IN GABIONS	CM	74.25	-	423.50	124.44	622.19
508a	BRICK PAVING (SINGLE COURSE)	SM	92.92	32.70	237.66	90.82	454.10
508b	BRICK PAVING (DOUBLE COURSE)	SM	167.13	32.70	471.68	167.88	839.39
509a	RIP RAP CLASS "A"	CM	408.93	-	478.48	221.85	1,109.25
509b	RIP RAP CLASS "B"	CM	392.93	-	474.65	216.89	1,084.47
509c	RIP RAP CLASS "C"	CM	396.30	-	478.48	218.69	1,093.47

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	497.87	102.14	1,897.44	624.36	3,121.82
509e	GROUTED RIP RAP CLASS "B"	CM	480.93	81.72	1,746.29	577.24	2,886.18
509f	GROUTED RIP RAP CLASS "C"	CM	474.99	68.10	1,792.68	583.94	2,919.71
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	676.71	353.02	4,126.08	1,288.95	6,444.77
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	37.12	191.97	382.69	152.95	764.74
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	90.85	390.69	-	120.39	601.93
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	127.80	67.48	77.75	68.26	341.29
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	163.59	86.37	99.52	87.37	436.85
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	210.12	180.32	379.74	192.55	962.73
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	262.65	225.40	474.67	240.68	1,203.41
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	248.44	572.25	2,246.49	766.80	3,833.98
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	828.62	670.54	4,100.42	1,399.89	6,999.46
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	119.93	90.27	433.90	161.02	805.12
603	BRICK EDGING	M	7.32	-	37.44	11.19	55.94
604a	METAL GUARD RAIL	M	16.45	70.84	1,579.36	416.66	2,083.32
604b	METAL GUARD RAIL END PIECES	EACH	21.98	-	1,197.58	304.89	1,524.45
604d	STEEL POST OF METAL GUARD RAIL	EACH	76.62	976.73	3,776.31	1,207.42	6,037.08
605a	CONCRETE BEAM GUARD RAIL	M	60.29	30.82	594.68	171.45	857.25
605c	CONCRETE POST FOR GUARD RAIL	M	74.03	27.36	595.43	174.21	871.03
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	192.65	255.15	6,846.80	1,823.65	9,118.26
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	60.66	382.72	9,242.62	2,421.50	12,107.51
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	192.65	541.89	11,862.24	3,149.19	15,745.97
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	600.00	598.64	20,913.67	5,528.08	27,640.39
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	120.00	119.73	9,193.99	2,358.43	11,792.15
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	247.37	-	1,301.21	387.15	1,935.73
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	247.37	-	1,951.82	549.80	2,748.99
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.25	5.86	16.16	6.07	30.33
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.75	4.03	39.61	11.10	55.48
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.25	5.86	21.56	7.42	37.08

District: Charsaddah **District Code: 10-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.75	4.03	52.83	14.40	72.01
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	67.36	5.22	156.12	57.17	285.87
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	67.36	9.98	499.15	144.12	720.61
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.81	8.59	22.47	8.47	42.34
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	2.81	9.63	67.50	19.99	99.93
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.81	6.95	29.96	9.93	49.65
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	2.81	9.63	90.01	25.61	128.06
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	67.36	3.73	216.98	72.02	360.08
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	67.36	7.90	851.20	231.61	1,158.07
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	55.87	3.73	104.08	40.92	204.59
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	55.87	7.90	333.27	99.26	496.29
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	55.87	3.73	144.65	51.06	255.31
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	55.87	7.90	568.32	158.02	790.11
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.29	81.62	193.85	70.94	354.70
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.29	81.62	233.85	80.94	404.70
610b	RIGHT OF WAY MARKER	EACH	81.54	121.33	302.80	126.42	632.08
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	521.25	976.31	2,036.05	883.40	4,417.02
610d	TEN KILOMETRE POST	EACH	996.55	1,952.61	4,467.86	1,854.26	9,271.28
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	113.81	91.00	953.30	289.53	1,447.65

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

DERA ISMAIL KHAN
(12)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Dera Ismail Khan **District Code: 12**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.66	10.10	-	2.69	13.45
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.89	173.32	1.17	45.34	226.72
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	19.32	456.54	2.63	119.62	598.11
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	77.29	1,826.16	10.51	478.49	2,392.46
103	STRIPPING	CM	2.42	93.22	-	23.91	119.55
104	COMPACTION OF NATURAL GROUND	SM	0.35	9.91	0.76	2.76	13.78
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.73	135.76	-	35.12	175.61
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	121.49	316.30	50.82	122.15	610.77
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	16.01	337.99	-	88.50	442.50
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.41	262.40	-	68.20	341.01
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.87	120.27	-	31.04	155.18
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	121.49	316.30	50.82	122.15	610.77
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	19.35	316.03	-	83.85	419.23
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.11	263.92	-	68.01	340.04
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.33	137.60	0.38	36.33	181.64
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	60.23	287.11	70.80	104.54	522.69
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	107.51	427.01	33.88	142.10	710.51
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	90.19	292.53	-	95.68	478.40
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	55.29	238.86	-	73.54	367.69
107d	GRANULAR BACK FILL	CM	32.22	137.14	410.89	145.06	725.32
107e	COMMON BACK FILL	CM	22.86	62.84	5.09	22.70	113.49
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.56	174.71	5.09	46.59	232.95
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	18.99	482.48	54.04	138.88	694.39
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	14.24	416.71	2.42	108.34	541.71
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	12.66	369.34	-	95.50	477.50
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.41	177.46	7.94	48.20	241.01
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.90	76.32	5.09	21.83	109.14
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	13.54	110.29	3.03	31.71	158.57
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.33	27.34	1.46	7.53	37.66

District: Dera Ismail Khan **District Code: 12**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.98	18.21	0.77	4.99	24.95
110	IMPROVED SUB-GRADE	CM	9.58	120.02	53.53	45.78	228.91
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.81	15.26	0.79	4.22	21.08
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.19	15.57	0.90	4.41	22.07
201	GRANULAR SUB-BASE	CM	7.53	255.06	516.15	194.68	973.42
202	AGGREGATE BASE	CM	9.19	326.54	720.28	264.00	1,320.01
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	65.24	1,510.17	6,104.67	1,920.02	9,600.10
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	67.59	1,510.17	6,580.96	2,039.68	10,198.40
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	72.03	1,577.28	6,093.84	1,935.79	9,678.94
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	72.03	1,571.31	6,733.42	2,094.19	10,470.95
204b	CEMENT STABILIZED BASE	CM	27.70	569.10	812.99	352.45	1,762.24
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	226.93	915.38	56,046.75	14,297.26	71,486.32
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	226.93	915.38	54,468.62	13,902.73	69,513.66
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	83.54	112.80	817.47	253.45	1,267.25
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	135.72	2,437.94	5,767.82	2,085.37	10,426.85
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	91.47	126.27	761.36	244.77	1,223.87
207a	DEEP PATCHING (0-15 cm)	SM	1.66	45.04	1.26	11.99	59.94
207b	DEEP PATCHING (16-30 cm)	SM	1.66	39.67	1.26	10.65	53.24
208	REINSTATEMENT OF ROAD SURFACE	SM	1.84	57.10	0.56	14.88	74.38
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.11	110.61	0.68	28.35	141.75
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.42	22.12	0.14	5.67	28.35
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.29	1.57	39.78	10.41	52.05
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.28	1.57	44.40	11.56	57.81
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	16.65	4.34	21.68
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	19.42	5.03	25.15
304a	SINGLE SURFACE TREATMENT	SM	0.75	7.57	78.73	21.76	108.81
304b	DOUBLE SURFACE TREATMENT	SM	1.08	14.15	152.06	41.82	209.12
304c	TRIPLE SURFACE TREATMENT	SM	1.83	19.94	173.40	48.79	243.96
304d	SEAL COAT	SM	0.69	4.12	55.38	15.05	75.25

District: Dera Ismail Khan **District Code: 12**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	61.94	1,489.33	7,232.51	2,195.94	10,979.72
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	61.94	1,438.23	7,819.16	2,329.83	11,649.15
307a	DENSE GRADED HOT BIT-MAC	CM	153.42	379.77	6,016.53	1,637.43	8,187.15
307b	OPEN GRADED HOT BIT-MAC	CM	153.42	379.77	5,860.62	1,598.45	7,992.26
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	27.40	590.65	2,124.46	685.63	3,428.14
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	25.24	650.70	48,215.44	12,222.85	61,114.23
309a	COLD MILLING, 0 - 30 mm	SM	0.94	24.99	8.68	8.65	43.26
309b	COLD MILLING, 0 - 50 mm	SM	1.56	41.65	14.46	14.42	72.10
309c	COLD MILLING, 0 - 70 mm	SM	2.35	62.48	21.69	21.63	108.15
401a1i	CONCRETE CLASS "A1" (Underground)	CM	522.66	1,059.94	3,802.32	1,346.23	6,731.15
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	522.66	1,059.94	4,079.79	1,415.60	7,077.99
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	522.66	1,059.94	4,634.74	1,554.33	7,771.67
401a2i	CONCRETE CLASS "A2" (Underground)	CM	522.66	1,059.94	4,180.32	1,440.73	7,203.65
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	522.66	1,059.94	4,457.79	1,510.10	7,550.49
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	522.66	1,059.94	5,012.74	1,648.83	8,244.17
401a3i	CONCRETE CLASS "A3" (Underground)	CM	522.66	1,059.94	4,558.32	1,535.23	7,676.15
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	522.66	1,059.94	4,835.79	1,604.60	8,022.99
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	522.66	1,059.94	5,390.74	1,743.33	8,716.67
401b	CONCRETE CLASS "B"	CM	659.59	805.93	3,070.65	1,134.04	5,670.21
401ci	CONCRETE CLASS "C" (Underground)	CM	508.01	500.55	3,358.60	1,091.79	5,458.95
401cii	CONCRETE CLASS "C" (On ground)	CM	508.01	500.55	3,476.94	1,121.38	5,606.88
401ciii	CONCRETE CLASS "C" (Elevated)	CM	508.01	500.55	3,713.63	1,180.55	5,902.74
401d	CONCRETE CLASS "D1"	CM	821.14	1,265.57	5,160.79	1,811.87	9,059.37
401e	CONCRETE CLASS "Y"	CM	1,125.25	500.55	4,585.74	1,552.88	7,764.42
401f	LEAN CONCRETE	CM	414.30	507.52	2,340.82	815.66	4,078.30
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,690.12	947.15	4,785.87	1,855.79	9,278.93
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,690.12	947.15	5,541.87	2,044.79	10,223.93
401gii	PRECAST CONCRETE CLASS "B"	CM	1,690.12	947.15	4,589.10	1,806.59	9,032.97
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,690.12	947.15	5,919.87	2,139.29	10,696.43

District: Dera Ismail Khan **District Code: 12**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,690.12	947.15	6,297.87	2,233.79	11,168.93
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,690.12	947.15	6,675.87	2,328.29	11,641.43
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,633.53	781.47	60,206.00	15,655.25	78,276.25
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,633.53	781.47	67,556.00	17,492.75	87,463.75
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,299.70	5,393.81	56,161.26	15,713.69	78,568.47
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,832.66	15,659.05	133,811.69	38,075.85	190,379.24
405b	LAUNCHING OF GIRDER	TON	67.08	532.52	-	149.90	749.51
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	112.88	-	310.41	105.82	529.11
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	112.88	-	309.31	105.55	527.73
406c	STEEL EXPANSION JOINTS	KG	9.28	26.40	90.58	31.56	157.81
406d	WATER STOPS 6" SIZE	M	101.91	-	407.95	127.46	637.32
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	39.04	-	3,088.17	781.80	3,909.02
406g	STEEL OR METAL BEARING DEVICES	KG	18.71	69.68	116.93	51.33	256.65
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	372.35	1,654.04	1,189.34	803.93	4,019.66
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	558.52	2,481.06	1,784.01	1,205.90	6,029.49
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	558.52	2,481.06	1,480.77	1,130.09	5,650.44
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	930.86	4,135.11	1,979.92	1,761.47	8,807.36
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	797.88	4,884.94	2,386.41	2,017.31	10,086.55
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,396.30	6,909.78	2,695.36	2,750.36	13,751.79
407h	PILE LOAD TEST UP TO 120 TON	EACH	20,478.32	45,769.30	100,985.02	41,808.16	209,040.80
407i	PILE LOAD TEST UP TO 240 TON	EACH	37,711.07	45,769.30	201,970.04	71,362.60	356,813.01
407j	PILE LOAD TEST UP TO 360 TON	EACH	54,943.82	50,188.38	302,955.06	102,021.82	510,109.08
407k	CONFIRMATORY BORING (NX SIZE)	M	196.36	1,582.02	6.37	446.19	2,230.94
410	BRICK WORK	CM	310.55	282.72	2,914.01	876.82	4,384.10
411a	STONE MASONRY RANDOM DRY	CM	264.65	107.96	426.76	199.84	999.21
411b	STONE MASONRY RANDOM WITH MORTAR	CM	285.52	166.68	1,453.09	476.32	2,381.62
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	344.69	107.96	459.93	228.14	1,140.72
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	405.59	166.68	1,497.31	517.39	2,586.97

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	66.04	11.74	43.75	30.38	151.91
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	544.80	264.08	1,402.50	552.84	2,764.22
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	206.90	437.48	643.39	321.95	1,609.73
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	200.33	577.19	834.17	402.92	2,014.61
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	198.36	935.96	1,069.85	551.04	2,755.22
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	206.44	1,146.39	1,598.23	737.76	3,688.82
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	237.27	1,078.41	2,297.87	903.39	4,516.94
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	294.10	1,331.30	3,614.54	1,309.99	6,549.93
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	380.61	1,481.41	4,680.50	1,635.63	8,178.14
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	447.26	1,798.85	5,964.68	2,052.70	10,263.48
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	529.40	2,098.66	9,213.95	2,960.50	14,802.52
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	206.90	507.33	722.10	359.08	1,795.42
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	200.33	577.19	852.99	407.63	2,038.14
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	192.49	935.96	1,044.43	543.22	2,716.10
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	206.44	1,146.39	1,743.69	774.13	3,870.65
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	237.27	1,078.41	3,316.03	1,157.93	5,789.65
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	294.10	1,331.30	4,871.85	1,624.31	8,121.57
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	380.61	1,481.41	6,808.93	2,167.74	10,838.68
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	447.26	1,798.85	9,234.95	2,870.27	14,351.33
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	529.40	2,098.66	12,992.82	3,905.22	19,526.09
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	83.73	118.93	380.62	145.82	729.09
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	760.04	612.95	3,420.65	1,198.41	5,992.04
507a	STEEL WIRE MESH FOR GABIONS	KG	5.15	-	109.50	28.66	143.32
507b	ROCK FILL IN GABIONS	CM	87.73	-	388.21	118.98	594.92
508a	BRICK PAVING (SINGLE COURSE)	SM	101.65	32.70	233.08	91.86	459.29
508b	BRICK PAVING (DOUBLE COURSE)	SM	181.69	32.70	462.34	169.18	845.92
509a	RIP RAP CLASS "A"	CM	443.44	-	331.95	193.85	969.24
509b	RIP RAP CLASS "B"	CM	426.45	-	329.29	188.94	944.68
509c	RIP RAP CLASS "C"	CM	429.03	-	331.95	190.25	951.23

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	540.44	102.14	1,724.93	591.88	2,959.39
509e	GROUTED RIP RAP CLASS "B"	CM	520.74	81.72	1,577.58	545.01	2,725.05
509f	GROUTED RIP RAP CLASS "C"	CM	514.00	68.10	1,621.80	550.97	2,754.87
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	753.62	353.02	3,992.64	1,274.82	6,374.10
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	43.27	191.97	411.50	161.69	808.43
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	108.10	390.69	-	124.70	623.49
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	140.41	67.48	53.94	65.46	327.28
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	179.72	86.37	69.05	83.78	418.92
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	228.43	180.32	361.65	192.60	963.01
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	285.54	225.40	452.06	240.75	1,203.76
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	277.04	572.25	2,136.06	746.34	3,731.68
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	929.05	670.54	3,980.50	1,395.02	6,975.12
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	134.43	90.27	414.37	159.77	798.83
603	BRICK EDGING	M	8.19	-	36.48	11.17	55.83
604a	METAL GUARD RAIL	M	19.19	70.84	1,579.36	417.35	2,086.74
604b	METAL GUARD RAIL END PIECES	EACH	26.15	-	1,197.58	305.93	1,529.66
604d	STEEL POST OF METAL GUARD RAIL	EACH	89.55	976.73	3,776.31	1,210.65	6,053.23
605a	CONCRETE BEAM GUARD RAIL	M	69.11	30.82	586.17	171.53	857.64
605c	CONCRETE POST FOR GUARD RAIL	M	84.86	27.36	585.03	174.31	871.56
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	216.37	255.15	6,437.77	1,727.32	8,636.61
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	66.12	382.72	9,235.23	2,421.02	12,105.09
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	216.37	541.89	11,848.47	3,151.68	15,758.41
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	691.81	598.64	20,906.45	5,549.23	27,746.13
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	138.36	119.73	9,208.66	2,366.69	11,833.44
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	283.68	-	1,306.05	397.43	1,987.16
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	283.68	-	1,959.07	560.69	2,803.44
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.57	5.86	16.18	6.15	30.77
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.86	4.03	39.87	11.19	55.95
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.57	5.86	21.59	7.51	37.53

District: Dera Ismail Khan **District Code: 12**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.86	4.03	53.18	14.52	72.58
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	74.98	5.22	156.37	59.14	295.71
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	74.98	9.98	502.46	146.85	734.27
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.21	8.59	22.50	8.58	42.88
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.21	9.63	67.50	20.09	100.44
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.21	6.95	30.00	10.04	50.20
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.21	9.63	90.01	25.71	128.56
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	74.98	3.73	217.23	73.98	369.92
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	74.98	7.90	851.20	233.52	1,167.59
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	62.45	3.73	104.25	42.61	213.03
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	62.45	7.90	335.48	101.46	507.29
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	62.45	3.73	144.82	52.75	263.75
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	62.45	7.90	568.32	159.67	798.34
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.86	81.62	193.80	71.07	355.35
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.86	81.62	233.80	81.07	405.34
610b	RIGHT OF WAY MARKER	EACH	94.95	121.33	293.84	127.53	637.65
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	588.53	976.31	1,965.01	882.46	4,412.30
610d	TEN KILOMETRE POST	EACH	1,135.30	1,952.61	4,327.27	1,853.80	9,268.98
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	129.01	91.00	944.66	291.17	1,455.84

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

DIR
(15)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Dir **District Code: 15**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.78	11.11	-	2.97	14.87
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.89	190.65	1.28	49.96	249.79
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	22.57	502.19	2.89	131.91	659.57
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	90.30	2,008.78	11.56	527.66	2,638.29
103	STRIPPING	CM	2.76	102.54	-	26.32	131.62
104	COMPACTION OF NATURAL GROUND	SM	0.39	10.90	0.84	3.03	15.17
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.93	149.33	-	38.57	192.83
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	136.18	347.93	55.90	135.00	675.01
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.53	371.79	-	97.58	487.90
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	12.13	288.63	-	75.19	375.95
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.03	132.30	-	34.08	170.41
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	136.18	347.93	55.90	135.00	675.01
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	21.66	347.63	-	92.32	461.62
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.36	290.32	-	74.92	374.59
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.93	151.36	0.42	39.93	199.64
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	70.05	315.83	77.89	115.94	579.70
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	120.34	469.72	37.27	156.83	784.15
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	101.56	321.79	-	105.84	529.18
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	61.89	262.75	-	81.16	405.80
107d	GRANULAR BACK FILL	CM	37.08	150.85	441.87	157.45	787.25
107e	COMMON BACK FILL	CM	27.39	69.12	5.60	25.53	127.64
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.40	192.18	5.60	51.30	256.48
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.75	530.73	59.45	152.98	764.91
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.31	458.38	2.66	119.34	596.69
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.50	406.28	-	105.19	525.97
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.47	195.20	8.73	53.10	265.51
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.68	83.95	5.60	24.06	120.29
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.59	121.32	3.33	35.06	175.30
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.50	30.07	1.60	8.29	41.47

District: Dir **District Code: 15**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.09	20.03	0.85	5.49	27.47
110	IMPROVED SUB-GRADE	CM	10.77	132.02	62.52	51.33	256.64
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.92	16.79	0.87	4.65	23.23
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.36	17.13	0.99	4.87	24.34
201	GRANULAR SUB-BASE	CM	8.35	272.91	488.73	192.50	962.49
202	AGGREGATE BASE	CM	9.78	349.40	799.18	289.59	1,447.96
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	75.50	1,615.88	6,628.48	2,079.96	10,399.82
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	78.02	1,615.88	7,091.14	2,196.26	10,981.29
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	83.51	1,687.69	6,617.69	2,097.22	10,486.12
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	83.51	1,681.30	7,250.21	2,253.75	11,268.77
204b	CEMENT STABILIZED BASE	CM	29.94	608.94	1,164.25	450.78	2,253.92
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	254.73	979.45	57,998.83	14,808.25	74,041.26
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	254.73	979.45	56,310.23	14,386.10	71,930.52
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	99.46	120.69	1,055.84	319.00	1,594.99
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	154.09	2,608.60	6,271.64	2,258.58	11,292.91
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	109.53	135.11	813.69	264.58	1,322.91
207a	DEEP PATCHING (0-15 cm)	SM	1.83	48.19	1.34	12.84	64.20
207b	DEEP PATCHING (16-30 cm)	SM	1.83	42.45	1.34	11.41	57.03
208	REINSTATEMENT OF ROAD SURFACE	SM	1.95	61.10	0.60	15.91	79.56
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.26	118.35	0.73	30.34	151.68
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.45	23.67	0.15	6.07	30.34
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.68	41.16	10.79	53.95
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.68	45.95	11.98	59.92
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	17.23	4.49	22.47
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	20.10	5.21	26.05
304a	SINGLE SURFACE TREATMENT	SM	0.81	8.10	82.36	22.82	114.09
304b	DOUBLE SURFACE TREATMENT	SM	1.18	15.14	159.87	44.05	220.24
304c	TRIPLE SURFACE TREATMENT	SM	1.98	21.33	182.44	51.44	257.20
304d	SEAL COAT	SM	0.75	4.41	58.03	15.80	78.99

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	70.81	1,593.58	7,780.91	2,361.33	11,806.63
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	70.81	1,538.91	8,401.79	2,502.88	12,514.38
307a	DENSE GRADED HOT BIT-MAC	CM	173.89	406.36	6,478.55	1,764.70	8,823.50
307b	OPEN GRADED HOT BIT-MAC	CM	173.89	406.36	6,296.47	1,719.18	8,595.90
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	29.84	631.99	2,260.77	730.65	3,653.25
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	27.59	696.25	49,560.77	12,571.15	62,855.77
309a	COLD MILLING, 0 - 30 mm	SM	1.00	26.74	9.28	9.26	46.29
309b	COLD MILLING, 0 - 50 mm	SM	1.67	44.57	15.47	15.43	77.15
309c	COLD MILLING, 0 - 70 mm	SM	2.51	66.86	23.21	23.14	115.72
401a1i	CONCRETE CLASS "A1" (Underground)	CM	571.24	1,112.93	4,231.39	1,478.89	7,394.46
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	571.24	1,112.93	4,522.74	1,551.73	7,758.64
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	571.24	1,112.93	5,105.43	1,697.40	8,487.01
401a2i	CONCRETE CLASS "A2" (Underground)	CM	571.24	1,112.93	4,628.29	1,578.12	7,890.58
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	571.24	1,112.93	4,919.64	1,650.95	8,254.77
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	571.24	1,112.93	5,502.33	1,796.63	8,983.13
401a3i	CONCRETE CLASS "A3" (Underground)	CM	571.24	1,112.93	5,025.19	1,677.34	8,386.71
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	571.24	1,112.93	5,316.54	1,750.18	8,750.89
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	571.24	1,112.93	5,899.23	1,895.85	9,479.26
401b	CONCRETE CLASS "B"	CM	725.53	846.23	3,429.15	1,250.22	6,251.12
401ci	CONCRETE CLASS "C" (Underground)	CM	565.44	525.57	3,779.22	1,217.56	6,087.80
401cii	CONCRETE CLASS "C" (On ground)	CM	565.44	525.57	3,903.48	1,248.62	6,243.12
401ciii	CONCRETE CLASS "C" (Elevated)	CM	565.44	525.57	4,152.00	1,310.75	6,553.77
401d	CONCRETE CLASS "D1"	CM	898.65	1,328.84	5,631.64	1,964.78	9,823.91
401e	CONCRETE CLASS "Y"	CM	1,257.67	525.57	5,049.93	1,708.29	8,541.47
401f	LEAN CONCRETE	CM	469.75	532.89	2,663.99	916.66	4,583.29
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,920.24	994.51	5,289.53	2,051.07	10,255.34
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,920.24	994.51	6,083.33	2,249.52	11,247.59
401gii	PRECAST CONCRETE CLASS "B"	CM	1,920.24	994.51	5,036.60	1,987.84	9,939.18
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,920.24	994.51	6,480.23	2,348.74	11,743.72

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,920.24	994.51	6,877.13	2,447.97	12,239.84
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,920.24	994.51	7,274.03	2,547.19	12,735.97
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,943.00	820.55	64,551.90	16,828.86	84,144.31
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,943.00	820.55	72,269.40	18,758.24	93,791.18
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,558.72	5,663.50	59,801.63	16,755.96	83,779.82
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,724.93	16,442.00	140,608.98	39,943.98	199,719.89
405b	LAUNCHING OF GIRDER	TON	63.87	559.15	-	155.75	778.77
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	124.47	-	320.40	111.22	556.08
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	124.47	-	319.53	111.00	555.00
406c	STEEL EXPANSION JOINTS	KG	11.41	27.72	96.62	33.94	169.68
406d	WATER STOPS 6" SIZE	M	106.62	-	496.76	150.85	754.23
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.23	0.56	2.81
406f	ASPHALT FELT (3 PLY)	SM	47.05	-	3,195.61	810.67	4,053.33
406g	STEEL OR METAL BEARING DEVICES	KG	22.20	73.17	124.35	54.93	274.65
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	352.65	1,736.74	946.99	759.09	3,795.47
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	528.97	2,605.12	1,420.48	1,138.64	5,693.21
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	528.97	2,605.12	1,050.89	1,046.24	5,231.22
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	881.62	4,341.86	1,239.04	1,615.63	8,078.15
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	755.67	5,129.19	1,431.62	1,829.12	9,145.60
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,322.43	7,255.27	1,570.32	2,537.00	12,685.02
407h	PILE LOAD TEST UP TO 120 TON	EACH	24,005.50	48,057.77	105,786.64	44,462.48	222,312.39
407i	PILE LOAD TEST UP TO 240 TON	EACH	44,686.18	48,057.77	211,573.28	76,079.31	380,396.53
407j	PILE LOAD TEST UP TO 360 TON	EACH	65,366.86	52,697.80	317,359.92	108,856.14	544,280.72
407k	CONFIRMATORY BORING (NX SIZE)	M	203.10	1,661.12	6.68	467.73	2,338.64
410	BRICK WORK	CM	379.42	296.86	3,309.18	996.37	4,981.83
411a	STONE MASONRY RANDOM DRY	CM	316.53	113.36	484.88	228.69	1,143.47
411b	STONE MASONRY RANDOM WITH MORTAR	CM	343.07	175.02	1,611.88	532.49	2,662.45
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	415.56	113.36	541.62	267.64	1,338.18
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	491.62	175.02	1,667.88	583.63	2,918.14

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	81.94	12.33	46.76	35.26	176.29
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	663.15	277.29	1,568.33	627.19	3,135.96
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	248.78	472.48	696.45	354.43	1,772.15
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	242.16	623.36	902.81	442.08	2,210.41
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	236.38	1,010.84	1,157.66	601.22	3,006.09
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	247.12	1,238.10	1,728.68	803.47	4,017.37
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	283.10	1,164.69	2,484.29	983.02	4,915.10
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	350.67	1,437.80	3,907.46	1,423.98	7,119.91
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	453.81	1,599.92	5,058.67	1,778.10	8,890.50
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	531.56	1,942.76	6,446.39	2,230.18	11,150.88
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	633.15	2,266.55	9,956.36	3,214.02	16,070.08
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	248.78	547.92	783.04	394.94	1,974.68
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	242.16	623.36	923.13	447.16	2,235.82
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	230.53	1,010.84	1,130.21	592.89	2,964.46
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	247.12	1,238.10	1,885.20	842.60	4,213.02
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	283.10	1,164.69	3,584.20	1,258.00	6,289.98
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	350.67	1,437.80	5,265.35	1,763.46	8,817.28
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	453.81	1,599.92	7,357.37	2,352.78	11,763.88
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	531.56	1,942.76	9,978.28	3,113.15	15,565.75
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	633.15	2,266.55	14,037.53	4,234.31	21,171.54
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	96.93	128.44	436.56	165.48	827.41
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	847.98	661.98	3,905.12	1,353.77	6,768.85
507a	STEEL WIRE MESH FOR GABIONS	KG	6.35	-	119.56	31.48	157.39
507b	ROCK FILL IN GABIONS	CM	103.85	-	419.27	130.78	653.89
508a	BRICK PAVING (SINGLE COURSE)	SM	126.61	35.32	275.99	109.48	547.40
508b	BRICK PAVING (DOUBLE COURSE)	SM	228.47	35.32	547.88	202.92	1,014.59
509a	RIP RAP CLASS "A"	CM	554.89	-	396.35	237.81	1,189.05
509b	RIP RAP CLASS "B"	CM	534.86	-	393.18	232.01	1,160.04
509c	RIP RAP CLASS "C"	CM	539.70	-	396.35	234.01	1,170.06

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	676.55	110.32	1,932.48	679.84	3,399.18
509e	GROUTED RIP RAP CLASS "B"	CM	654.02	88.25	1,769.75	628.00	3,140.02
509f	GROUTED RIP RAP CLASS "C"	CM	646.88	73.54	1,818.99	634.85	3,174.27
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	896.07	381.27	4,511.67	1,447.25	7,236.26
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	51.39	207.33	434.53	173.31	866.56
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	113.16	421.95	-	133.78	668.89
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	172.54	72.87	64.41	77.46	387.28
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	220.85	93.28	82.44	99.14	495.71
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	283.44	194.75	398.78	219.24	1,096.20
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	354.30	243.44	498.47	274.05	1,370.25
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	308.92	613.92	2,414.48	834.33	4,171.65
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,079.33	711.97	4,427.36	1,554.66	7,773.32
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	155.77	97.09	467.55	180.10	900.51
603	BRICK EDGING	M	9.34	-	41.13	12.62	63.09
604a	METAL GUARD RAIL	M	18.56	72.26	1,610.95	425.44	2,127.21
604b	METAL GUARD RAIL END PIECES	EACH	24.86	-	1,221.53	311.60	1,557.98
604d	STEEL POST OF METAL GUARD RAIL	EACH	86.36	996.27	3,851.83	1,233.61	6,168.07
605a	CONCRETE BEAM GUARD RAIL	M	78.93	31.44	613.11	180.87	904.36
605c	CONCRETE POST FOR GUARD RAIL	M	96.92	27.91	614.57	184.85	924.25
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	245.41	260.25	7,001.87	1,876.88	9,384.41
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	74.54	390.38	9,453.66	2,479.64	12,398.22
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	245.41	552.72	12,144.23	3,235.59	16,177.95
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	794.46	610.62	21,406.96	5,703.01	28,515.04
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	158.89	122.12	9,405.08	2,421.52	12,107.62
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	321.54	-	1,330.46	413.00	2,065.01
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	321.54	-	1,995.70	579.31	2,896.55
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.79	5.98	16.49	6.31	31.57
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.93	4.11	40.53	11.39	56.96
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.79	5.98	22.01	7.69	38.47

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.93	4.11	54.06	14.77	73.87
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	82.49	5.32	159.36	61.79	308.97
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	82.49	10.18	510.75	150.86	754.28
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.49	8.76	22.93	8.80	43.98
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.49	9.82	68.85	20.54	102.71
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.49	7.09	30.58	10.29	51.45
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.49	9.82	91.81	26.28	131.40
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	82.49	3.80	221.44	76.93	384.66
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	82.49	8.06	868.22	239.69	1,198.46
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	68.43	3.80	106.24	44.62	223.09
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	68.43	8.06	341.02	104.37	521.87
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	68.43	3.80	147.63	54.96	274.82
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	68.43	8.06	579.69	164.04	820.22
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.84	83.25	197.74	72.71	363.54
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.85	83.25	238.54	82.91	414.54
610b	RIGHT OF WAY MARKER	EACH	107.35	123.75	311.17	135.57	677.83
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	673.03	995.83	2,104.23	943.27	4,716.36
610d	TEN KILOMETRE POST	EACH	1,289.81	1,991.66	4,612.08	1,973.39	9,866.95
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	141.09	95.67	989.87	306.66	1,533.30

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

HARIPUR HAZARA
(20-B)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.73	10.10	-	2.71	13.54
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.68	173.32	1.17	45.54	227.71
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	21.41	456.54	2.63	120.14	600.72
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	85.64	1,826.16	10.51	480.58	2,402.89
103	STRIPPING	CM	2.72	93.22	-	23.98	119.92
104	COMPACTION OF NATURAL GROUND	SM	0.40	9.91	0.76	2.77	13.84
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.63	135.76	-	35.35	176.73
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	141.07	316.30	50.82	127.05	635.23
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.09	337.99	-	89.02	445.10
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	11.92	262.40	-	68.58	342.89
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.61	120.27	-	31.22	156.09
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	141.07	316.30	50.82	127.05	635.23
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	22.55	316.03	-	84.64	423.22
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.15	263.92	-	68.27	341.34
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.48	137.60	0.38	36.62	183.08
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	66.07	287.11	70.80	106.00	529.98
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	125.25	427.01	33.88	146.54	732.69
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	104.76	292.53	-	99.32	496.62
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	64.42	238.86	-	75.82	379.10
107d	GRANULAR BACK FILL	CM	37.04	137.14	407.71	145.47	727.35
107e	COMMON BACK FILL	CM	25.46	62.84	5.09	23.35	116.74
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.48	174.71	5.09	46.82	234.10
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.53	482.48	54.04	139.51	697.57
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.15	416.71	2.42	108.82	544.10
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.36	369.34	-	95.92	479.62
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.40	177.46	7.94	48.45	242.24
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.68	76.32	5.09	22.02	110.12
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.21	110.29	3.03	32.13	160.65
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.52	27.34	1.46	7.58	37.90

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.11	18.21	0.77	5.02	25.12
110	IMPROVED SUB-GRADE	CM	10.66	120.02	55.62	46.57	232.87
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.91	15.26	0.79	4.24	21.21
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.32	15.57	0.90	4.45	22.24
201	GRANULAR SUB-BASE	CM	8.58	255.06	393.91	164.39	821.94
202	AGGREGATE BASE	CM	10.43	326.54	708.80	261.44	1,307.22
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	72.36	1,510.17	5,637.85	1,805.09	9,025.47
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	75.21	1,510.17	6,055.75	1,910.28	9,551.41
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	80.47	1,577.28	5,628.18	1,821.48	9,107.42
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	80.47	1,571.31	6,198.57	1,962.59	9,812.93
204b	CEMENT STABILIZED BASE	CM	31.27	569.10	828.47	357.21	1,786.07
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	269.62	915.38	50,344.29	12,882.32	64,411.61
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	269.62	915.38	48,766.16	12,487.79	62,438.95
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	91.35	112.80	833.93	259.52	1,297.60
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	151.71	2,437.94	5,399.57	1,997.30	9,986.52
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	100.10	126.27	737.36	240.93	1,204.67
207a	DEEP PATCHING (0-15 cm)	SM	1.87	45.04	1.26	12.04	60.21
207b	DEEP PATCHING (16-30 cm)	SM	1.87	39.67	1.26	10.70	53.50
208	REINSTATEMENT OF ROAD SURFACE	SM	2.06	57.10	0.56	14.93	74.66
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.47	110.61	0.68	28.44	142.20
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.49	22.12	0.14	5.69	28.44
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.33	1.57	35.73	9.41	47.04
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.32	1.57	39.89	10.45	52.23
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.58	14.95	3.92	19.58
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.13	0.58	17.45	4.54	22.70
304a	SINGLE SURFACE TREATMENT	SM	0.87	7.57	70.32	19.69	98.46
304b	DOUBLE SURFACE TREATMENT	SM	1.26	14.15	135.86	37.82	189.10
304c	TRIPLE SURFACE TREATMENT	SM	2.13	19.94	154.89	44.24	221.20
304d	SEAL COAT	SM	0.82	4.12	49.75	13.67	68.36

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	69.13	1,489.33	6,628.07	2,046.63	10,233.15
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	69.13	1,438.23	7,146.65	2,163.50	10,817.51
307a	DENSE GRADED HOT BIT-MAC	CM	165.96	379.77	5,431.97	1,494.43	7,472.13
307b	OPEN GRADED HOT BIT-MAC	CM	165.96	379.77	5,305.64	1,462.84	7,314.22
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	28.58	590.65	1,992.08	652.83	3,264.14
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	29.19	650.70	42,343.60	10,755.87	53,779.36
309a	COLD MILLING, 0 - 30 mm	SM	1.06	24.99	8.68	8.68	43.41
309b	COLD MILLING, 0 - 50 mm	SM	1.77	41.65	14.46	14.47	72.36
309c	COLD MILLING, 0 - 70 mm	SM	2.66	62.48	21.69	21.71	108.53
401a1i	CONCRETE CLASS "A1" (Underground)	CM	536.49	1,059.94	3,830.96	1,356.85	6,784.23
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	536.49	1,059.94	4,108.43	1,426.21	7,131.07
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	536.49	1,059.94	4,663.37	1,564.95	7,824.75
401a2i	CONCRETE CLASS "A2" (Underground)	CM	536.49	1,059.94	4,208.96	1,451.35	7,256.73
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	536.49	1,059.94	4,486.43	1,520.71	7,603.57
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	536.49	1,059.94	5,041.37	1,659.45	8,297.25
401a3i	CONCRETE CLASS "A3" (Underground)	CM	536.49	1,059.94	4,586.96	1,545.85	7,729.23
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	536.49	1,059.94	4,864.43	1,615.21	8,076.07
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	536.49	1,059.94	5,419.37	1,753.95	8,769.75
401b	CONCRETE CLASS "B"	CM	711.09	805.93	3,104.98	1,155.50	5,777.50
401ci	CONCRETE CLASS "C" (Underground)	CM	524.18	500.55	3,393.06	1,104.45	5,522.23
401cii	CONCRETE CLASS "C" (On ground)	CM	524.18	500.55	3,511.41	1,134.03	5,670.16
401ciii	CONCRETE CLASS "C" (Elevated)	CM	524.18	500.55	3,748.09	1,193.20	5,966.02
401d	CONCRETE CLASS "D1"	CM	818.77	1,265.57	5,186.95	1,817.82	9,089.11
401e	CONCRETE CLASS "Y"	CM	1,134.72	500.55	4,612.31	1,561.89	7,809.47
401f	LEAN CONCRETE	CM	441.38	507.52	2,376.86	831.44	4,157.20
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,770.55	947.15	4,816.33	1,883.51	9,417.54
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,770.55	947.15	5,572.33	2,072.51	10,362.54
401gii	PRECAST CONCRETE CLASS "B"	CM	1,770.55	947.15	4,622.32	1,835.01	9,175.03
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,770.55	947.15	5,950.33	2,167.01	10,835.04

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,770.55	947.15	6,328.33	2,261.51	11,307.54
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,770.55	947.15	6,706.33	2,356.01	11,780.04
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,629.06	781.47	59,358.00	15,442.13	77,210.66
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,629.06	781.47	66,708.00	17,279.63	86,398.16
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,280.39	5,393.81	55,550.69	15,556.22	77,781.12
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,816.57	15,659.05	133,836.01	38,077.91	190,389.53
405b	LAUNCHING OF GIRDER	TON	65.06	532.52	-	149.40	746.98
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	114.51	-	299.99	103.62	518.12
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	114.51	-	299.23	103.44	517.18
406c	STEEL EXPANSION JOINTS	KG	9.30	26.40	90.23	31.48	157.40
406d	WATER STOPS 6" SIZE	M	96.10	-	472.04	142.03	710.17
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	45.58	-	2,954.30	749.97	3,749.85
406g	STEEL OR METAL BEARING DEVICES	KG	20.54	69.68	117.26	51.87	259.36
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	354.77	1,654.04	898.09	726.73	3,633.63
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	532.15	2,481.06	1,347.14	1,090.09	5,450.45
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	532.15	2,481.06	995.00	1,002.05	5,010.27
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	886.92	4,135.11	1,170.29	1,548.08	7,740.40
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	760.22	4,884.94	1,347.81	1,748.24	8,741.21
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,330.38	6,909.78	1,480.92	2,430.27	12,151.35
407h	PILE LOAD TEST UP TO 120 TON	EACH	22,545.15	45,769.30	100,541.50	42,213.99	211,069.95
407i	PILE LOAD TEST UP TO 240 TON	EACH	41,156.52	45,769.30	201,083.00	72,002.21	360,011.03
407j	PILE LOAD TEST UP TO 360 TON	EACH	59,767.89	50,188.38	301,624.50	102,895.19	514,475.97
407k	CONFIRMATORY BORING (NX SIZE)	M	194.25	1,582.02	6.37	445.66	2,228.30
410	BRICK WORK	CM	355.79	282.72	3,029.04	916.89	4,584.44
411a	STONE MASONRY RANDOM DRY	CM	297.65	107.96	492.04	224.41	1,122.06
411b	STONE MASONRY RANDOM WITH MORTAR	CM	322.47	166.68	1,537.17	506.58	2,532.90
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	388.65	107.96	548.49	261.27	1,306.37
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	458.97	166.68	1,599.96	556.40	2,782.01

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	76.05	11.74	44.06	32.96	164.82
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	616.14	264.08	1,505.16	596.35	2,981.73
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	229.32	437.48	643.98	327.70	1,638.48
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	221.35	577.19	834.87	408.35	2,041.76
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	220.74	935.96	1,070.67	556.84	2,784.21
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	228.87	1,146.39	1,599.19	743.61	3,718.06
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	263.94	1,078.41	2,298.83	910.30	4,551.48
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	329.16	1,331.30	3,615.93	1,319.10	6,595.49
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	425.97	1,481.41	4,681.88	1,647.31	8,236.57
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	499.52	1,798.85	5,966.36	2,066.18	10,330.91
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	595.70	2,098.66	9,215.91	2,977.57	14,887.84
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	229.32	507.33	723.27	364.98	1,824.91
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	221.35	577.19	853.69	413.06	2,065.29
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	216.08	935.96	1,045.25	549.32	2,746.62
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	228.87	1,146.39	1,744.43	779.92	3,899.62
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	263.94	1,078.41	3,317.10	1,164.86	5,824.32
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	329.16	1,331.30	4,873.24	1,633.42	8,167.12
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	425.97	1,481.41	6,810.31	2,179.42	10,897.11
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	499.52	1,798.85	9,236.63	2,883.75	14,418.76
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	595.70	2,098.66	12,994.77	3,922.28	19,611.42
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	93.39	118.93	440.73	163.26	816.32
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	787.63	612.95	3,454.98	1,213.89	6,069.44
507a	STEEL WIRE MESH FOR GABIONS	KG	5.70	-	109.41	28.78	143.89
507b	ROCK FILL IN GABIONS	CM	96.56	-	423.50	130.01	650.07
508a	BRICK PAVING (SINGLE COURSE)	SM	115.12	32.70	244.13	97.99	489.94
508b	BRICK PAVING (DOUBLE COURSE)	SM	206.12	32.70	484.49	180.83	904.13
509a	RIP RAP CLASS "A"	CM	505.38	-	397.24	225.65	1,128.27
509b	RIP RAP CLASS "B"	CM	485.38	-	394.06	219.86	1,099.29
509c	RIP RAP CLASS "C"	CM	488.59	-	397.24	221.46	1,107.28

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	615.67	102.14	1,801.96	629.94	3,149.72
509e	GROUTED RIP RAP CLASS "B"	CM	593.46	81.72	1,652.87	582.01	2,910.06
509f	GROUTED RIP RAP CLASS "C"	CM	585.55	68.10	1,698.06	587.93	2,939.63
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	805.63	353.02	4,025.81	1,296.12	6,480.59
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	47.38	191.97	408.30	161.91	809.57
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	107.69	390.69	-	124.60	622.98
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	158.55	67.48	64.55	72.64	363.22
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	202.95	86.37	82.63	92.99	464.93
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	259.20	180.32	360.08	199.90	999.51
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	324.00	225.40	450.10	249.88	1,249.38
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	284.44	572.25	2,150.61	751.82	3,759.12
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	973.28	670.54	3,978.70	1,405.63	7,028.15
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	141.76	90.27	417.47	162.37	811.87
603	BRICK EDGING	M	9.17	-	38.40	11.89	59.46
604a	METAL GUARD RAIL	M	19.85	70.84	1,579.36	417.51	2,087.56
604b	METAL GUARD RAIL END PIECES	EACH	25.20	-	1,197.58	305.69	1,528.47
604d	STEEL POST OF METAL GUARD RAIL	EACH	95.54	976.73	3,776.31	1,212.14	6,060.72
605a	CONCRETE BEAM GUARD RAIL	M	74.35	30.82	583.43	172.15	860.75
605c	CONCRETE POST FOR GUARD RAIL	M	91.29	27.36	582.15	175.20	876.00
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	240.32	255.15	6,841.57	1,834.26	9,171.30
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	68.78	382.72	9,230.52	2,420.51	12,102.53
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	240.32	541.89	11,841.08	3,155.82	15,779.10
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	754.96	598.64	20,888.29	5,560.47	27,802.37
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	150.99	119.73	9,195.20	2,366.48	11,832.40
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	318.35	-	1,303.32	405.42	2,027.08
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	318.35	-	1,954.97	568.33	2,841.66
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.79	5.86	16.16	6.20	31.00
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.93	4.03	39.59	11.14	55.68
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.79	5.86	21.56	7.55	37.75

District: Haripur Hazara **District Code: 20-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.93	4.03	52.80	14.44	72.20
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	77.02	5.22	156.10	59.59	297.93
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	77.02	9.98	498.88	146.47	732.36
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.48	8.59	22.47	8.64	43.18
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.48	9.63	67.50	20.16	100.78
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.48	6.95	29.96	10.10	50.50
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.48	9.63	90.01	25.78	128.90
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	77.02	3.73	216.96	74.43	372.14
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	77.02	7.90	851.20	234.03	1,170.15
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	64.14	3.73	104.07	42.98	214.92
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	64.14	7.90	333.09	101.28	506.42
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	64.14	3.73	144.64	53.13	265.64
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	64.14	7.90	568.32	160.09	800.46
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.05	81.62	193.82	71.12	355.61
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.05	81.62	233.82	81.12	405.61
610b	RIGHT OF WAY MARKER	EACH	102.01	121.33	294.06	129.35	646.74
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	642.60	976.31	1,964.08	895.75	4,478.73
610d	TEN KILOMETRE POST	EACH	1,228.85	1,952.61	4,324.10	1,876.39	9,381.95
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	134.15	91.00	945.78	292.73	1,463.66

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

KARAK
(27)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Karak **District Code: 27**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.78	10.10	-	2.72	13.60
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	8.13	173.32	1.17	45.65	228.27
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	22.72	456.54	2.63	120.47	602.36
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	90.87	1,826.16	10.51	481.89	2,409.43
103	STRIPPING	CM	2.85	93.22	-	24.02	120.09
104	COMPACTION OF NATURAL GROUND	SM	0.42	9.91	0.76	2.77	13.86
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.81	135.76	-	35.39	176.96
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	151.45	316.30	50.82	129.64	648.21
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	20.00	337.99	-	89.50	447.49
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	13.12	262.40	-	68.88	344.40
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.75	120.27	-	31.26	156.28
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	151.45	316.30	50.82	129.64	648.21
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	24.20	316.03	-	85.06	425.28
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	10.13	263.92	-	68.51	342.57
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.93	137.60	0.38	36.73	183.64
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	69.76	287.11	70.80	106.92	534.60
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	134.42	427.01	33.88	148.83	744.14
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	113.02	292.53	-	101.39	506.95
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	69.13	238.86	-	77.00	384.99
107d	GRANULAR BACK FILL	CM	39.04	137.14	333.46	127.41	637.04
107e	COMMON BACK FILL	CM	26.75	62.84	5.09	23.67	118.34
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	8.15	174.71	5.09	46.99	234.93
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	23.30	482.48	54.04	139.95	699.77
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	17.47	416.71	2.42	109.15	545.75
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	15.53	369.34	-	96.22	481.09
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	9.13	177.46	7.94	48.63	243.16
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.26	76.32	5.09	22.17	110.84
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	16.39	110.29	3.03	32.43	162.13
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.64	27.34	1.46	7.61	38.04

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.19	18.21	0.77	5.04	25.21
110	IMPROVED SUB-GRADE	CM	11.62	120.02	50.09	45.43	227.17
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.97	15.26	0.79	4.26	21.28
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.43	15.57	0.90	4.47	22.37
201	GRANULAR SUB-BASE	CM	9.35	255.06	416.14	170.14	850.69
202	AGGREGATE BASE	CM	11.51	326.54	784.55	280.65	1,403.24
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	78.57	1,510.17	5,942.49	1,882.81	9,414.04
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	81.74	1,510.17	6,397.70	1,997.40	9,987.02
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	87.29	1,577.28	5,932.13	1,899.17	9,495.87
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	87.29	1,571.31	6,546.67	2,051.32	10,256.58
204b	CEMENT STABILIZED BASE	CM	34.39	569.10	825.35	357.21	1,786.06
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	281.09	915.38	53,974.23	13,792.67	68,963.37
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	281.09	915.38	52,396.10	13,398.14	66,990.71
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	97.69	112.80	830.30	260.20	1,300.98
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	165.47	2,437.94	5,642.02	2,061.36	10,306.79
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	107.33	126.27	744.05	244.41	1,222.07
207a	DEEP PATCHING (0-15 cm)	SM	2.02	45.04	1.26	12.08	60.39
207b	DEEP PATCHING (16-30 cm)	SM	2.02	39.67	1.26	10.74	53.69
208	REINSTATEMENT OF ROAD SURFACE	SM	2.26	57.10	0.56	14.98	74.90
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.54	110.61	0.68	28.46	142.29
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.51	22.12	0.14	5.69	28.46
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.35	1.57	38.31	10.06	50.29
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.34	1.57	42.76	11.17	55.85
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.14	0.58	16.03	4.19	20.94
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.14	0.58	18.70	4.86	24.28
304a	SINGLE SURFACE TREATMENT	SM	0.93	7.57	75.71	21.05	105.27
304b	DOUBLE SURFACE TREATMENT	SM	1.36	14.15	146.28	40.45	202.23
304c	TRIPLE SURFACE TREATMENT	SM	2.29	19.94	166.79	47.26	236.28
304d	SEAL COAT	SM	0.88	4.12	53.35	14.59	72.93

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	75.36	1,489.33	7,021.16	2,146.46	10,732.32
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	75.36	1,438.23	7,583.42	2,274.25	11,371.26
307a	DENSE GRADED HOT BIT-MAC	CM	183.99	379.77	5,811.58	1,593.84	7,969.18
307b	OPEN GRADED HOT BIT-MAC	CM	183.99	379.77	5,666.56	1,557.58	7,787.90
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	32.29	590.65	2,077.65	675.15	3,375.73
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	29.98	650.70	46,081.36	11,690.51	58,452.55
309a	COLD MILLING, 0 - 30 mm	SM	1.15	24.99	8.68	8.70	43.52
309b	COLD MILLING, 0 - 50 mm	SM	1.92	41.65	14.46	14.51	72.54
309c	COLD MILLING, 0 - 70 mm	SM	2.88	62.48	21.69	21.76	108.81
401a1i	CONCRETE CLASS "A1" (Underground)	CM	571.52	1,059.94	3,809.45	1,360.23	6,801.14
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	571.52	1,059.94	4,086.93	1,429.60	7,147.98
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	571.52	1,059.94	4,641.87	1,568.33	7,841.66
401a2i	CONCRETE CLASS "A2" (Underground)	CM	571.52	1,059.94	4,187.45	1,454.73	7,273.64
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	571.52	1,059.94	4,464.93	1,524.10	7,620.48
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	571.52	1,059.94	5,019.87	1,662.83	8,314.16
401a3i	CONCRETE CLASS "A3" (Underground)	CM	571.52	1,059.94	4,565.45	1,549.23	7,746.14
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	571.52	1,059.94	4,842.93	1,618.60	8,092.98
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	571.52	1,059.94	5,397.87	1,757.33	8,786.66
401b	CONCRETE CLASS "B"	CM	752.65	805.93	3,080.89	1,159.87	5,799.34
401ci	CONCRETE CLASS "C" (Underground)	CM	550.17	500.55	3,369.77	1,105.12	5,525.61
401cii	CONCRETE CLASS "C" (On ground)	CM	550.17	500.55	3,488.12	1,134.71	5,673.54
401ciii	CONCRETE CLASS "C" (Elevated)	CM	550.17	500.55	3,724.80	1,193.88	5,969.39
401d	CONCRETE CLASS "D1"	CM	869.93	1,265.57	5,167.32	1,825.70	9,128.52
401e	CONCRETE CLASS "Y"	CM	1,186.05	500.55	4,592.37	1,569.74	7,848.70
401f	LEAN CONCRETE	CM	464.76	507.52	2,351.24	830.88	4,154.40
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,831.87	947.15	4,794.10	1,893.28	9,466.40
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,831.87	947.15	5,550.10	2,082.28	10,411.40
401gii	PRECAST CONCRETE CLASS "B"	CM	1,831.87	947.15	4,600.16	1,844.80	9,223.98
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,831.87	947.15	5,928.10	2,176.78	10,883.90

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,831.87	947.15	6,306.10	2,271.28	11,356.40
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,831.87	947.15	6,684.10	2,365.78	11,828.90
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,730.40	781.47	60,842.00	15,838.47	79,192.34
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,730.40	781.47	68,192.00	17,675.97	88,379.84
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,397.38	5,393.81	56,521.96	15,828.29	79,141.45
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	3,317.26	15,659.05	133,842.72	38,204.76	191,023.79
405b	LAUNCHING OF GIRDER	TON	77.25	532.52	-	152.44	762.21
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	123.44	-	305.24	107.17	535.85
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	123.44	-	304.39	106.96	534.79
406c	STEEL EXPANSION JOINTS	KG	10.01	26.40	91.38	31.95	159.74
406d	WATER STOPS 6" SIZE	M	105.48	-	470.21	143.92	719.61
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	43.69	-	3,036.57	770.06	3,850.32
406g	STEEL OR METAL BEARING DEVICES	KG	22.31	69.68	117.85	52.46	262.31
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	416.93	1,654.04	889.13	740.03	3,700.13
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	625.39	2,481.06	1,333.70	1,110.04	5,550.19
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	625.39	2,481.06	981.72	1,022.04	5,110.22
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	1,042.32	4,135.11	1,148.17	1,581.40	7,907.00
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	893.42	4,884.94	1,308.66	1,771.76	8,858.78
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,563.49	6,909.78	1,447.73	2,480.25	12,401.25
407h	PILE LOAD TEST UP TO 120 TON	EACH	24,126.58	45,769.30	90,203.26	40,024.79	200,123.93
407i	PILE LOAD TEST UP TO 240 TON	EACH	44,046.27	45,769.30	180,406.52	67,555.52	337,777.62
407j	PILE LOAD TEST UP TO 360 TON	EACH	63,965.96	50,188.38	270,609.78	96,191.03	480,955.16
407k	CONFIRMATORY BORING (NX SIZE)	M	223.15	1,582.02	6.37	452.88	2,264.42
410	BRICK WORK	CM	335.42	282.72	3,199.01	954.29	4,771.44
411a	STONE MASONRY RANDOM DRY	CM	291.16	107.96	429.91	207.26	1,036.29
411b	STONE MASONRY RANDOM WITH MORTAR	CM	312.23	166.68	1,456.24	483.79	2,418.94
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	377.55	107.96	481.39	241.73	1,208.63
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	441.81	166.68	1,518.77	531.82	2,659.08

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	70.27	11.74	43.75	31.44	157.21
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	593.53	264.08	1,423.96	570.39	2,851.97
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	237.69	437.48	643.39	329.64	1,648.20
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	229.73	577.19	834.17	410.27	2,051.36
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	230.49	935.96	1,069.85	559.08	2,795.38
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	239.72	1,146.39	1,598.23	746.08	3,730.42
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	277.90	1,078.41	2,297.87	913.55	4,567.73
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	346.22	1,331.30	3,614.54	1,323.02	6,615.08
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	448.05	1,481.41	4,680.50	1,652.49	8,262.45
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	529.02	1,798.85	5,964.68	2,073.14	10,365.69
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	624.86	2,098.66	9,213.95	2,984.37	14,921.85
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	237.69	507.33	722.10	366.78	1,833.90
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	229.73	577.19	852.99	414.98	2,074.88
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	224.56	935.96	1,044.43	551.24	2,756.19
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	239.72	1,146.39	1,743.69	782.45	3,912.25
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	277.90	1,078.41	3,316.03	1,168.09	5,840.43
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	346.22	1,331.30	4,871.85	1,637.34	8,186.72
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	448.05	1,481.41	6,808.93	2,184.60	10,922.99
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	529.02	1,798.85	9,234.95	2,890.71	14,453.54
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	624.86	2,098.66	12,992.82	3,929.08	19,645.42
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	98.08	118.93	287.07	126.02	630.09
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	844.07	612.95	3,430.89	1,221.98	6,109.89
507a	STEEL WIRE MESH FOR GABIONS	KG	5.88	-	110.38	29.06	145.32
507b	ROCK FILL IN GABIONS	CM	102.22	-	423.50	131.43	657.15
508a	BRICK PAVING (SINGLE COURSE)	SM	112.13	32.70	259.16	101.00	504.99
508b	BRICK PAVING (DOUBLE COURSE)	SM	198.52	32.70	515.72	186.74	933.68
509a	RIP RAP CLASS "A"	CM	484.55	-	335.10	204.91	1,024.56
509b	RIP RAP CLASS "B"	CM	465.60	-	332.42	199.51	997.53
509c	RIP RAP CLASS "C"	CM	467.01	-	335.10	200.53	1,002.64

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	591.93	102.14	1,728.08	605.54	3,027.69
509e	GROUTED RIP RAP CLASS "B"	CM	568.36	81.72	1,580.71	557.70	2,788.48
509f	GROUTED RIP RAP CLASS "C"	CM	560.02	68.10	1,624.95	563.27	2,816.34
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	825.33	353.02	4,002.36	1,295.18	6,475.90
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	50.95	191.97	333.54	144.11	720.57
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	120.01	390.69	-	127.68	638.38
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	155.26	67.48	54.45	69.30	346.49
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	198.74	86.37	69.70	88.70	443.51
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	250.14	180.32	351.30	195.44	977.20
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	312.68	225.40	439.12	244.30	1,221.50
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	303.07	572.25	2,139.59	753.73	3,768.64
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,005.85	670.54	3,998.01	1,418.60	7,092.99
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	146.31	90.27	414.78	162.84	814.21
603	BRICK EDGING	M	9.21	-	41.95	12.79	63.95
604a	METAL GUARD RAIL	M	22.24	70.84	1,579.36	418.11	2,090.56
604b	METAL GUARD RAIL END PIECES	EACH	28.60	-	1,197.58	306.54	1,532.72
604d	STEEL POST OF METAL GUARD RAIL	EACH	104.64	976.73	3,776.31	1,214.42	6,072.10
605a	CONCRETE BEAM GUARD RAIL	M	76.63	30.82	589.31	174.19	870.96
605c	CONCRETE POST FOR GUARD RAIL	M	94.09	27.36	588.49	177.49	887.43
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	250.32	255.15	6,843.99	1,837.37	9,186.83
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	71.20	382.72	9,228.48	2,420.60	12,103.01
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	250.32	541.89	11,838.59	3,157.70	15,788.50
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	793.86	598.64	20,882.85	5,568.84	27,844.20
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	158.77	119.73	9,194.76	2,368.32	11,841.58
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	319.78	-	1,303.08	405.71	2,028.57
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	319.78	-	1,954.62	568.60	2,843.00
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.99	5.86	16.17	6.25	31.27
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	1.00	4.03	39.75	11.19	55.96
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.99	5.86	21.58	7.61	38.03

District: Karak **District Code: 27**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	1.00	4.03	53.01	14.51	72.55
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	78.08	5.22	156.25	59.89	299.43
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	78.08	9.98	500.87	147.23	736.16
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.73	8.59	22.49	8.70	43.51
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.73	9.63	67.50	20.22	101.09
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.73	6.95	29.98	10.17	50.83
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.73	9.63	90.01	25.84	129.21
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	78.08	3.73	217.11	74.73	373.64
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	78.08	7.90	851.20	234.29	1,171.47
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	65.44	3.73	104.17	43.33	216.67
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	65.44	7.90	334.42	101.94	509.69
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	65.44	3.73	144.74	53.48	267.38
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	65.44	7.90	568.32	160.42	802.08
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.54	81.62	193.80	71.24	356.20
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.54	81.62	233.80	81.24	406.19
610b	RIGHT OF WAY MARKER	EACH	107.15	121.33	294.85	130.83	654.16
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	649.01	976.31	1,975.98	900.32	4,501.61
610d	TEN KILOMETRE POST	EACH	1,255.89	1,952.61	4,349.06	1,889.39	9,446.95
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	142.80	91.00	945.48	294.82	1,474.11

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

KOHAT
(34)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Kohat **District Code: 34**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.67	10.10	-	2.69	13.47
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.14	173.32	1.17	45.41	227.03
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	19.84	456.54	2.63	119.75	598.76
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	79.37	1,826.16	10.51	479.01	2,395.05
103	STRIPPING	CM	2.60	93.22	-	23.95	119.77
104	COMPACTION OF NATURAL GROUND	SM	0.38	9.91	0.76	2.76	13.81
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.20	135.76	-	35.24	176.20
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	126.24	316.30	50.82	123.34	616.70
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	16.12	337.99	-	88.53	442.65
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.56	262.40	-	68.24	341.20
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.26	120.27	-	31.13	155.66
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	126.24	316.30	50.82	123.34	616.70
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	20.09	316.03	-	84.03	420.15
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.19	263.92	-	68.03	340.14
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.98	137.60	0.38	36.49	182.45
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	61.45	287.11	70.80	104.84	524.21
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	111.59	427.01	33.88	143.12	715.61
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	92.95	292.53	-	96.37	481.86
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	57.39	238.86	-	74.06	370.32
107d	GRANULAR BACK FILL	CM	33.43	137.14	400.54	142.78	713.89
107e	COMMON BACK FILL	CM	23.44	62.84	5.09	22.84	114.21
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.79	174.71	5.09	46.65	233.24
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	19.59	482.48	54.04	139.03	695.13
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	14.69	416.71	2.42	108.45	542.27
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	13.06	369.34	-	95.60	478.00
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.63	177.46	7.94	48.26	241.28
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.14	76.32	5.09	21.89	109.43
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	14.03	110.29	3.03	31.84	159.19
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.39	27.34	1.46	7.55	37.73

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.04	18.21	0.77	5.01	25.03
110	IMPROVED SUB-GRADE	CM	9.85	120.02	52.15	45.50	227.52
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.86	15.26	0.79	4.23	21.14
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.25	15.57	0.90	4.43	22.15
201	GRANULAR SUB-BASE	CM	7.73	255.06	543.95	201.69	1,008.43
202	AGGREGATE BASE	CM	9.30	326.54	705.13	260.24	1,301.22
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	65.21	1,510.17	6,167.01	1,935.60	9,677.99
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	67.55	1,510.17	6,600.97	2,044.67	10,223.36
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	72.29	1,577.28	6,156.63	1,951.55	9,757.76
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	72.29	1,571.31	6,750.75	2,098.59	10,492.94
204b	CEMENT STABILIZED BASE	CM	27.95	569.10	1,019.57	404.16	2,020.78
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	243.07	915.38	54,737.79	13,974.06	69,870.30
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	243.07	915.38	53,159.66	13,579.53	67,897.64
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	83.92	112.80	897.88	273.65	1,368.26
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	136.80	2,437.94	5,802.67	2,094.35	10,471.77
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	91.14	126.27	722.78	235.05	1,175.24
207a	DEEP PATCHING (0-15 cm)	SM	1.75	45.04	1.26	12.01	60.05
207b	DEEP PATCHING (16-30 cm)	SM	1.75	39.67	1.26	10.67	53.35
208	REINSTATEMENT OF ROAD SURFACE	SM	1.88	57.10	0.56	14.89	74.43
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.37	110.61	0.68	28.42	142.08
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.47	22.12	0.14	5.68	28.42
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.57	38.85	10.18	50.90
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.29	1.57	43.37	11.31	56.53
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	16.26	4.24	21.20
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	18.97	4.92	24.58
304a	SINGLE SURFACE TREATMENT	SM	0.77	7.57	77.37	21.43	107.15
304b	DOUBLE SURFACE TREATMENT	SM	1.12	14.15	149.70	41.24	206.21
304c	TRIPLE SURFACE TREATMENT	SM	1.90	19.94	170.80	48.16	240.80
304d	SEAL COAT	SM	0.72	4.12	54.68	14.88	74.40

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	62.01	1,489.33	7,253.98	2,201.33	11,006.65
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	62.01	1,438.23	7,838.95	2,334.80	11,673.99
307a	DENSE GRADED HOT BIT-MAC	CM	151.13	379.77	6,048.94	1,644.96	8,224.81
307b	OPEN GRADED HOT BIT-MAC	CM	151.13	379.77	5,863.98	1,598.72	7,993.61
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	27.07	590.65	2,109.07	681.70	3,408.48
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	27.12	650.70	46,867.60	11,886.35	59,431.77
309a	COLD MILLING, 0 - 30 mm	SM	0.97	24.99	8.68	8.66	43.29
309b	COLD MILLING, 0 - 50 mm	SM	1.61	41.65	14.46	14.43	72.15
309c	COLD MILLING, 0 - 70 mm	SM	2.41	62.48	21.69	21.65	108.23
401a1i	CONCRETE CLASS "A1" (Underground)	CM	517.14	1,059.94	3,973.64	1,387.68	6,938.40
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	517.14	1,059.94	4,251.11	1,457.05	7,285.24
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	517.14	1,059.94	4,806.06	1,595.78	7,978.92
401a2i	CONCRETE CLASS "A2" (Underground)	CM	517.14	1,059.94	4,351.64	1,482.18	7,410.90
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	517.14	1,059.94	4,629.11	1,551.55	7,757.74
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	517.14	1,059.94	5,184.06	1,690.28	8,451.42
401a3i	CONCRETE CLASS "A3" (Underground)	CM	517.14	1,059.94	4,729.64	1,576.68	7,883.40
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	517.14	1,059.94	5,007.11	1,646.05	8,230.24
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	517.14	1,059.94	5,562.06	1,784.78	8,923.92
401b	CONCRETE CLASS "B"	CM	670.17	805.93	3,184.04	1,165.03	5,825.17
401ci	CONCRETE CLASS "C" (Underground)	CM	507.28	500.55	3,516.30	1,131.03	5,655.16
401cii	CONCRETE CLASS "C" (On ground)	CM	507.28	500.55	3,634.64	1,160.62	5,803.08
401ciii	CONCRETE CLASS "C" (Elevated)	CM	507.28	500.55	3,871.32	1,219.79	6,098.94
401d	CONCRETE CLASS "D1"	CM	799.90	1,265.57	5,308.19	1,843.41	9,217.07
401e	CONCRETE CLASS "Y"	CM	1,096.46	500.55	4,765.78	1,590.70	7,953.48
401f	LEAN CONCRETE	CM	420.11	507.52	2,454.69	845.58	4,227.90
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,690.71	947.15	4,979.69	1,904.39	9,521.93
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,690.71	947.15	5,735.69	2,093.39	10,466.93
401gii	PRECAST CONCRETE CLASS "B"	CM	1,690.71	947.15	4,708.59	1,836.61	9,183.07
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,690.71	947.15	6,113.69	2,187.89	10,939.43

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,690.71	947.15	6,491.69	2,282.39	11,411.93
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,690.71	947.15	6,869.69	2,376.89	11,884.43
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,595.78	781.47	60,206.00	15,645.81	78,229.06
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,595.78	781.47	67,556.00	17,483.31	87,416.56
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,245.21	5,393.81	56,041.90	15,670.23	78,351.16
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,804.43	15,659.05	133,831.75	38,073.81	190,369.04
405b	LAUNCHING OF GIRDER	TON	66.38	532.52	-	149.73	748.64
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.80	-	307.11	103.98	519.89
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.80	-	306.17	103.74	518.71
406c	STEEL EXPANSION JOINTS	KG	8.91	26.40	90.79	31.52	157.62
406d	WATER STOPS 6" SIZE	M	99.51	-	470.59	142.52	712.62
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	41.24	-	3,060.35	775.40	3,876.99
406g	STEEL OR METAL BEARING DEVICES	KG	18.32	69.68	117.68	51.42	257.11
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	374.18	1,654.04	899.35	731.89	3,659.47
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	561.27	2,481.06	1,349.02	1,097.84	5,489.20
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	561.27	2,481.06	996.97	1,009.83	5,049.14
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	935.46	4,135.11	1,173.58	1,561.04	7,805.18
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	801.82	4,884.94	1,352.77	1,759.88	8,799.42
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,403.19	6,909.78	1,485.86	2,449.71	12,248.53
407h	PILE LOAD TEST UP TO 120 TON	EACH	20,395.24	45,769.30	98,474.38	41,159.73	205,798.66
407i	PILE LOAD TEST UP TO 240 TON	EACH	37,393.75	45,769.30	196,948.76	70,027.95	350,139.77
407j	PILE LOAD TEST UP TO 360 TON	EACH	54,392.26	50,188.38	295,423.14	100,000.95	500,004.73
407k	CONFIRMATORY BORING (NX SIZE)	M	194.02	1,582.02	6.37	445.60	2,228.01
410	BRICK WORK	CM	331.41	282.72	3,119.08	933.30	4,666.51
411a	STONE MASONRY RANDOM DRY	CM	281.11	107.96	426.43	203.87	1,019.37
411b	STONE MASONRY RANDOM WITH MORTAR	CM	304.36	166.68	1,490.36	490.35	2,451.75
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	365.39	107.96	477.63	237.74	1,188.72
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	430.79	166.68	1,543.20	535.17	2,675.84

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	70.67	11.74	44.38	31.70	158.49
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	576.11	264.08	1,448.39	572.15	2,860.73
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	212.44	437.48	644.57	323.62	1,618.11
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	204.95	577.19	835.58	404.43	2,022.15
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	203.82	935.96	1,071.50	552.82	2,764.10
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	211.05	1,146.39	1,600.15	739.40	3,696.98
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	241.56	1,078.41	2,299.79	904.94	4,524.70
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	298.99	1,331.30	3,617.32	1,311.90	6,559.51
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	386.93	1,481.41	4,683.26	1,637.90	8,189.49
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	453.23	1,798.85	5,968.04	2,055.03	10,275.14
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	538.73	2,098.66	9,217.87	2,963.82	14,819.08
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	212.44	507.33	724.45	361.05	1,805.27
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	204.95	577.19	854.40	409.14	2,045.68
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	198.17	935.96	1,046.08	545.05	2,725.26
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	211.05	1,146.39	1,745.18	775.66	3,878.28
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	241.56	1,078.41	3,318.17	1,159.54	5,797.68
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	298.99	1,331.30	4,874.63	1,626.23	8,131.15
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	386.93	1,481.41	6,811.69	2,170.01	10,850.03
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	453.23	1,798.85	9,238.31	2,872.60	14,362.99
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	538.73	2,098.66	12,996.73	3,908.53	19,542.65
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	87.04	118.93	399.86	151.46	757.28
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	760.14	612.95	3,534.04	1,226.78	6,133.91
507a	STEEL WIRE MESH FOR GABIONS	KG	5.18	-	109.50	28.67	143.35
507b	ROCK FILL IN GABIONS	CM	89.65	-	388.21	119.47	597.33
508a	BRICK PAVING (SINGLE COURSE)	SM	106.70	32.70	251.43	97.71	488.54
508b	BRICK PAVING (DOUBLE COURSE)	SM	190.98	32.70	499.32	180.75	903.76
509a	RIP RAP CLASS "A"	CM	468.81	-	331.63	200.11	1,000.55
509b	RIP RAP CLASS "B"	CM	450.04	-	328.97	194.75	973.76
509c	RIP RAP CLASS "C"	CM	453.02	-	331.63	196.16	980.81

District: Kohat **District Code: 34**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	569.88	102.14	1,748.10	605.03	3,025.15
509e	GROUTED RIP RAP CLASS "B"	CM	549.49	81.72	1,598.31	557.38	2,786.90
509f	GROUTED RIP RAP CLASS "C"	CM	542.20	68.10	1,643.41	563.43	2,817.13
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	771.05	353.02	4,099.51	1,305.90	6,529.48
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	43.73	191.97	400.99	159.17	795.86
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	110.63	390.69	-	125.33	626.65
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	148.51	67.48	53.89	67.47	337.35
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	190.10	86.37	68.98	86.36	431.80
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	242.42	180.32	362.76	196.38	981.88
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	303.02	225.40	453.45	245.47	1,227.35
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	274.07	572.25	2,225.15	767.86	3,839.32
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	929.75	670.54	4,081.29	1,420.39	7,101.96
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	135.10	90.27	430.75	164.03	820.14
603	BRICK EDGING	M	8.61	-	39.84	12.11	60.56
604a	METAL GUARD RAIL	M	19.62	70.84	1,579.36	417.46	2,087.28
604b	METAL GUARD RAIL END PIECES	EACH	26.80	-	1,197.58	306.09	1,530.47
604d	STEEL POST OF METAL GUARD RAIL	EACH	93.46	976.73	3,776.31	1,211.62	6,058.12
605a	CONCRETE BEAM GUARD RAIL	M	69.51	30.82	593.39	173.43	867.15
605c	CONCRETE POST FOR GUARD RAIL	M	85.34	27.36	593.85	176.64	883.20
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	217.01	255.15	6,848.29	1,830.11	9,150.57
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	68.95	382.72	9,243.83	2,423.88	12,119.38
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	217.01	541.89	11,864.05	3,155.74	15,778.69
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	685.96	598.64	20,920.35	5,551.24	27,756.18
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	137.19	119.73	9,200.07	2,364.25	11,821.24
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	295.24	-	1,302.64	399.47	1,997.35
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	295.24	-	1,953.96	562.30	2,811.50
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.70	5.86	16.16	6.18	30.91
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.90	4.03	39.68	11.15	55.76
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.70	5.86	21.57	7.53	37.67

District: Kohat **District Code: 34**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.90	4.03	52.92	14.46	72.31
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.37	5.22	156.19	58.44	292.22
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.37	9.98	500.01	145.59	727.95
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.38	8.59	22.48	8.61	43.06
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.38	9.63	67.50	20.13	100.65
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.38	6.95	29.97	10.08	50.38
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.38	9.63	90.01	25.75	128.77
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.37	3.73	217.05	73.29	366.43
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.37	7.90	851.20	232.87	1,164.33
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	60.56	3.73	104.13	42.10	210.52
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	60.56	7.90	333.84	100.58	502.88
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	60.56	3.73	144.70	52.25	261.23
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	60.56	7.90	568.32	159.20	795.98
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.38	81.62	193.85	71.21	356.06
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.38	81.62	233.85	81.21	406.05
610b	RIGHT OF WAY MARKER	EACH	95.52	121.33	301.54	129.60	647.98
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	594.15	976.31	2,028.46	899.73	4,498.65
610d	TEN KILOMETRE POST	EACH	1,134.63	1,952.61	4,452.94	1,885.05	9,425.23
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	132.06	91.00	951.76	293.71	1,468.53

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

KOHISTAN DASU
(35)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	1.07	11.31	-	3.10	15.48
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	11.09	194.12	1.31	51.63	258.14
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	31.25	511.33	2.94	136.38	681.90
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	125.02	2,045.30	11.77	545.52	2,727.61
103	STRIPPING	CM	3.99	104.40	-	27.10	135.50
104	COMPACTION OF NATURAL GROUND	SM	0.57	11.10	0.86	3.13	15.66
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	7.45	152.05	-	39.88	199.38
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	192.10	354.26	56.92	150.82	754.09
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	25.67	378.55	-	101.06	505.28
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	16.91	293.88	-	77.70	388.49
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	6.10	134.70	-	35.20	176.00
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	192.10	354.26	56.92	150.82	754.09
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	30.51	353.95	-	96.12	480.58
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	13.04	295.59	-	77.16	385.79
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	11.98	154.11	0.43	41.63	208.14
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	94.34	321.57	79.30	123.80	619.01
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	169.52	478.26	37.95	171.43	857.15
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	142.21	327.64	-	117.46	587.31
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	87.18	267.53	-	88.68	443.38
107d	GRANULAR BACK FILL	CM	51.53	153.60	540.34	186.37	931.83
107e	COMMON BACK FILL	CM	37.24	70.38	5.70	28.33	141.65
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	10.62	195.67	5.70	53.00	265.00
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	30.68	540.38	60.53	157.90	789.48
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	23.01	466.72	2.71	123.11	615.55
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	20.45	413.66	-	108.53	542.65
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	12.03	198.75	8.89	54.92	274.59
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	9.59	85.47	5.70	25.19	125.96
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	22.13	123.52	3.39	37.26	186.31
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	2.15	30.62	1.63	8.60	43.00

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.60	20.39	0.87	5.71	28.57
110	IMPROVED SUB-GRADE	CM	15.43	134.42	58.41	52.07	260.33
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	1.33	17.09	0.89	4.83	24.14
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.97	17.44	1.00	5.10	25.52
201	GRANULAR SUB-BASE	CM	11.87	278.02	636.90	231.70	1,158.48
202	AGGREGATE BASE	CM	13.97	355.93	855.16	306.26	1,531.32
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	103.44	1,646.08	6,875.71	2,156.31	10,781.54
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	107.05	1,646.08	7,338.58	2,272.93	11,364.64
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	114.83	1,719.24	6,864.90	2,174.74	10,873.71
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	114.83	1,712.72	7,500.48	2,332.01	11,660.05
204b	CEMENT STABILIZED BASE	CM	42.34	620.32	1,310.15	493.20	2,466.01
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	366.50	997.76	59,188.60	15,138.22	75,691.08
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	366.50	997.76	57,468.44	14,708.18	73,540.88
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	133.65	122.95	1,160.29	354.22	1,771.10
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	215.35	2,657.36	6,504.77	2,344.37	11,721.84
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	145.86	137.64	810.40	273.47	1,367.37
207a	DEEP PATCHING (0-15 cm)	SM	2.63	49.09	1.37	13.27	66.36
207b	DEEP PATCHING (16-30 cm)	SM	2.63	43.25	1.37	11.81	59.06
208	REINSTATEMENT OF ROAD SURFACE	SM	2.79	62.24	0.61	16.41	82.05
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	3.46	120.57	0.74	31.19	155.95
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.69	24.11	0.15	6.24	31.19
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.45	1.72	42.01	11.04	55.21
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.43	1.72	46.89	12.26	61.30
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.18	0.63	17.58	4.60	22.99
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.18	0.63	20.51	5.33	26.65
304a	SINGLE SURFACE TREATMENT	SM	1.16	8.26	84.54	23.49	117.45
304b	DOUBLE SURFACE TREATMENT	SM	1.69	15.43	164.52	45.41	227.05
304c	TRIPLE SURFACE TREATMENT	SM	2.87	21.73	187.80	53.10	265.50
304d	SEAL COAT	SM	1.08	4.49	59.51	16.27	81.34

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	97.95	1,623.37	8,049.70	2,442.75	12,213.77
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	97.95	1,567.67	8,689.51	2,588.78	12,943.92
307a	DENSE GRADED HOT BIT-MAC	CM	240.34	413.95	6,715.99	1,842.57	9,212.85
307b	OPEN GRADED HOT BIT-MAC	CM	240.34	413.95	6,523.78	1,794.52	8,972.59
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	42.53	643.80	2,322.17	752.13	3,760.63
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	39.44	709.26	50,595.97	12,836.17	64,180.84
309a	COLD MILLING, 0 - 30 mm	SM	1.45	27.24	9.46	9.54	47.69
309b	COLD MILLING, 0 - 50 mm	SM	2.42	45.40	15.76	15.90	79.48
309c	COLD MILLING, 0 - 70 mm	SM	3.63	68.10	23.64	23.84	119.22
401a1i	CONCRETE CLASS "A1" (Underground)	CM	761.72	1,165.93	4,606.28	1,633.48	8,167.42
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	761.72	1,165.93	4,911.50	1,709.79	8,548.94
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	761.72	1,165.93	5,521.94	1,862.40	9,311.99
401a2i	CONCRETE CLASS "A2" (Underground)	CM	761.72	1,165.93	5,022.08	1,737.43	8,687.17
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	761.72	1,165.93	5,327.30	1,813.74	9,068.69
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	761.72	1,165.93	5,937.74	1,966.35	9,831.74
401a3i	CONCRETE CLASS "A3" (Underground)	CM	761.72	1,165.93	5,437.88	1,841.38	9,206.92
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	761.72	1,165.93	5,743.10	1,917.69	9,588.44
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	761.72	1,165.93	6,353.54	2,070.30	10,351.49
401b	CONCRETE CLASS "B"	CM	1,010.98	886.52	3,766.84	1,416.09	7,080.43
401ci	CONCRETE CLASS "C" (Underground)	CM	756.12	550.60	4,146.95	1,363.42	6,817.09
401cii	CONCRETE CLASS "C" (On ground)	CM	756.12	550.60	4,277.13	1,395.96	6,979.81
401ciii	CONCRETE CLASS "C" (Elevated)	CM	756.12	550.60	4,537.48	1,461.05	7,305.25
401d	CONCRETE CLASS "D1"	CM	1,159.37	1,392.12	6,055.70	2,151.80	10,758.99
401e	CONCRETE CLASS "Y"	CM	1,591.92	550.60	5,453.68	1,899.05	9,495.25
401f	LEAN CONCRETE	CM	647.02	558.27	2,965.69	1,042.75	5,213.73
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	2,528.19	1,041.87	5,732.19	2,325.56	11,627.81
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	2,528.19	1,041.87	6,563.79	2,533.46	12,667.31
401gii	PRECAST CONCRETE CLASS "B"	CM	2,528.19	1,041.87	5,457.45	2,256.87	11,284.37
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	2,528.19	1,041.87	6,979.59	2,637.41	13,187.06

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	2,528.19	1,041.87	7,395.39	2,741.36	13,706.81
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	2,528.19	1,041.87	7,811.19	2,845.31	14,226.56
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	2,269.93	859.62	67,625.80	17,688.84	88,444.19
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	2,269.93	859.62	75,710.80	19,710.09	98,550.44
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,791.78	5,933.20	62,730.55	17,613.88	88,069.41
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	3,585.21	17,224.95	147,324.91	42,033.77	210,168.84
405b	LAUNCHING OF GIRDER	TON	83.27	585.78	-	167.26	836.31
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	160.01	-	338.37	124.60	622.98
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	160.01	-	337.24	124.31	621.57
406c	STEEL EXPANSION JOINTS	KG	12.88	29.03	101.10	35.75	178.77
406d	WATER STOPS 6" SIZE	M	144.57	-	521.24	166.45	832.26
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.03	-	2.33	0.59	2.95
406f	ASPHALT FELT (3 PLY)	SM	61.75	-	3,345.12	851.72	4,258.58
406g	STEEL OR METAL BEARING DEVICES	KG	27.56	76.65	129.89	58.53	292.63
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	461.25	1,819.45	1,094.63	843.83	4,219.16
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	691.88	2,729.17	1,641.95	1,265.75	6,328.75
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	691.88	2,729.17	1,204.56	1,156.40	5,782.01
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	1,153.13	4,548.62	1,403.66	1,776.35	8,881.76
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	988.40	5,373.43	1,607.96	1,992.45	9,962.24
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,729.70	7,600.76	1,765.77	2,774.06	13,870.28
407h	PILE LOAD TEST UP TO 120 TON	EACH	32,702.74	50,346.23	117,420.05	50,117.26	250,586.28
407i	PILE LOAD TEST UP TO 240 TON	EACH	60,581.96	50,346.23	234,840.10	86,442.07	432,210.37
407j	PILE LOAD TEST UP TO 360 TON	EACH	88,461.19	55,207.22	352,260.15	123,982.14	619,910.70
407k	CONFIRMATORY BORING (NX SIZE)	M	264.58	1,740.22	7.00	502.95	2,514.75
410	BRICK WORK	CM	502.21	311.00	3,670.43	1,120.91	5,604.53
411a	STONE MASONRY RANDOM DRY	CM	432.02	118.76	622.73	293.38	1,466.89
411b	STONE MASONRY RANDOM WITH MORTAR	CM	465.81	183.35	1,886.10	633.81	3,169.07
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	561.55	118.76	690.06	342.59	1,712.96
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	660.10	183.35	1,931.97	693.86	3,469.28

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	106.78	12.92	50.37	42.52	212.59
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	885.37	290.49	1,827.69	750.89	3,754.44
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	333.83	481.23	711.93	381.75	1,908.75
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	323.67	634.90	922.63	470.30	2,351.50
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	319.03	1,029.55	1,182.72	632.82	3,164.12
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	332.27	1,261.03	1,764.92	839.55	4,197.77
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	381.20	1,186.26	2,534.53	1,025.49	5,127.47
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	470.90	1,464.43	3,985.92	1,480.31	7,401.57
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	609.40	1,629.55	5,158.43	1,849.34	9,246.72
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	715.85	1,978.74	6,573.15	2,316.93	11,584.67
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	848.26	2,308.53	10,149.35	3,326.53	16,632.67
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	333.83	558.07	803.28	423.80	2,118.98
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	323.67	634.90	943.33	475.47	2,377.37
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	309.99	1,029.55	1,154.75	623.58	3,117.88
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	332.27	1,261.03	1,923.40	879.17	4,395.87
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	381.20	1,186.26	3,655.27	1,305.68	6,528.41
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	470.90	1,464.43	5,368.97	1,826.07	9,130.37
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	609.40	1,629.55	7,499.70	2,434.66	12,173.31
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	715.85	1,978.74	10,170.45	3,216.26	16,081.30
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	848.26	2,308.53	14,306.10	4,365.72	21,828.60
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	134.53	130.82	563.91	207.31	1,036.57
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	1,133.63	674.24	4,151.84	1,489.93	7,449.64
507a	STEEL WIRE MESH FOR GABIONS	KG	7.55	-	122.35	32.47	162.37
507b	ROCK FILL IN GABIONS	CM	141.62	-	465.85	151.87	759.34
508a	BRICK PAVING (SINGLE COURSE)	SM	164.47	35.97	300.39	125.21	626.04
508b	BRICK PAVING (DOUBLE COURSE)	SM	294.00	35.97	595.85	231.46	1,157.28
509a	RIP RAP CLASS "A"	CM	716.62	-	518.44	308.77	1,543.83
509b	RIP RAP CLASS "B"	CM	689.31	-	514.30	300.90	1,504.51
509c	RIP RAP CLASS "C"	CM	693.63	-	518.44	303.02	1,515.09

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	873.06	112.36	2,134.72	780.03	3,900.17
509e	GROUTED RIP RAP CLASS "B"	CM	841.49	89.89	1,962.67	723.51	3,617.57
509f	GROUTED RIP RAP CLASS "C"	CM	830.77	74.91	2,015.68	730.34	3,651.70
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	1,187.18	388.33	4,759.55	1,583.76	7,918.82
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	70.25	211.17	531.50	203.23	1,016.15
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	148.52	429.76	-	144.57	722.85
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	227.79	74.22	84.25	96.57	482.83
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	291.58	95.01	107.84	123.60	618.02
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	370.42	198.35	438.94	251.93	1,259.65
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	463.02	247.94	548.68	314.91	1,574.56
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	415.87	648.78	2,647.31	927.99	4,639.94
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,427.45	745.57	4,781.61	1,738.66	8,693.28
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	207.86	102.44	512.83	205.78	1,028.92
603	BRICK EDGING	M	12.45	-	44.00	14.11	70.56
604a	METAL GUARD RAIL	M	24.72	72.97	1,626.74	431.11	2,155.53
604b	METAL GUARD RAIL END PIECES	EACH	32.01	-	1,233.50	316.38	1,581.90
604d	STEEL POST OF METAL GUARD RAIL	EACH	117.97	1,006.03	3,889.60	1,253.40	6,267.00
605a	CONCRETE BEAM GUARD RAIL	M	100.22	31.75	625.42	189.35	946.74
605c	CONCRETE POST FOR GUARD RAIL	M	123.05	28.18	628.29	194.88	974.41
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	312.67	262.80	7,087.58	1,915.76	9,578.82
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	101.93	394.21	9,587.80	2,520.98	12,604.92
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	312.67	558.14	12,331.71	3,300.63	16,503.16
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	1,010.74	616.60	21,728.96	5,839.08	29,195.39
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	202.15	123.32	9,531.12	2,464.15	12,320.73
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	384.52	-	1,346.93	432.86	2,164.31
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	384.52	-	2,020.39	601.23	3,006.14
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.98	6.03	16.67	6.67	33.36
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	1.33	4.15	41.05	11.63	58.16
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.98	6.03	22.24	8.06	40.32

District: Kohistan dasu **District Code: 35**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	1.33	4.15	54.75	15.06	75.29
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	94.07	5.37	161.05	65.12	325.62
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	94.07	10.28	517.33	155.42	777.10
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	4.98	8.85	23.17	9.25	46.25
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	4.98	9.92	69.53	21.11	105.54
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	4.98	7.16	30.90	10.76	53.79
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	4.98	9.92	92.71	26.90	134.51
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	94.07	3.84	223.73	80.41	402.06
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	94.07	8.13	876.74	244.74	1,223.68
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	79.48	3.84	107.37	47.67	238.36
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	79.48	8.13	345.41	108.26	541.28
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	79.48	3.84	149.16	58.12	290.59
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	79.48	8.13	585.37	168.25	841.24
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	13.98	84.07	199.77	74.45	372.27
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	13.97	84.06	240.97	84.75	423.76
610b	RIGHT OF WAY MARKER	EACH	140.54	124.97	320.97	146.62	733.09
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	839.65	1,005.59	2,181.85	1,006.78	5,033.88
610d	TEN KILOMETRE POST	EACH	1,601.40	2,011.19	4,767.99	2,095.14	10,475.72
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	189.55	99.10	1,023.53	328.04	1,640.22

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

LUCKY MURWAT
(41-B)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.82	10.10	-	2.73	13.65
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	8.04	173.32	1.17	45.63	228.16
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	23.36	456.54	2.63	120.63	603.16
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	93.44	1,826.16	10.51	482.53	2,412.64
103	STRIPPING	CM	2.76	93.22	-	23.99	119.97
104	COMPACTION OF NATURAL GROUND	SM	0.39	9.91	0.76	2.77	13.83
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.54	135.76	-	35.07	175.37
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	132.61	316.30	50.82	124.93	624.67
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.39	337.99	-	89.10	445.48
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	11.98	262.40	-	68.59	342.97
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.72	120.27	-	31.00	154.98
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	132.61	316.30	50.82	124.93	624.67
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	21.06	316.03	-	84.27	421.36
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.25	263.92	-	68.29	341.47
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.48	137.60	0.38	36.37	181.83
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	69.85	287.11	70.80	106.94	534.71
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	117.00	427.01	33.88	144.47	722.37
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	99.12	292.53	-	97.91	489.56
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	60.17	238.86	-	74.76	373.80
107d	GRANULAR BACK FILL	CM	37.50	137.14	341.14	128.94	644.72
107e	COMMON BACK FILL	CM	28.92	62.84	5.09	24.21	121.06
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.19	174.71	5.09	46.75	233.74
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.58	482.48	54.04	139.53	697.63
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.19	416.71	2.42	108.83	544.15
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.39	369.34	-	95.93	479.67
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.36	177.46	7.94	48.44	242.20
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.53	76.32	5.09	21.98	109.92
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.59	110.29	3.03	32.23	161.13
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.47	27.34	1.46	7.57	37.83

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.06	18.21	0.77	5.01	25.06
110	IMPROVED SUB-GRADE	CM	10.60	120.02	78.38	52.25	261.25
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.92	15.26	0.79	4.24	21.22
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.34	15.57	0.90	4.45	22.25
201	GRANULAR SUB-BASE	CM	8.43	255.06	542.53	201.50	1,007.52
202	AGGREGATE BASE	CM	9.62	326.54	739.55	268.93	1,344.64
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	80.25	1,510.17	6,200.76	1,947.80	9,738.98
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	82.63	1,510.17	6,645.99	2,059.70	10,298.49
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	88.43	1,577.28	6,190.35	1,964.01	9,820.07
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	88.43	1,571.31	6,796.47	2,114.05	10,570.25
204b	CEMENT STABILIZED BASE	CM	29.94	569.10	1,009.72	402.19	2,010.96
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	258.08	915.38	55,149.87	14,080.83	70,404.16
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	258.08	915.38	53,571.74	13,686.30	68,431.50
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	109.21	112.80	920.29	285.58	1,427.88
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	160.09	2,437.94	5,848.76	2,111.70	10,558.50
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	120.75	126.27	719.09	241.53	1,207.65
207a	DEEP PATCHING (0-15 cm)	SM	1.84	45.04	1.26	12.03	60.17
207b	DEEP PATCHING (16-30 cm)	SM	1.84	39.67	1.26	10.69	53.47
208	REINSTATEMENT OF ROAD SURFACE	SM	1.93	57.10	0.56	14.90	74.49
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.22	110.61	0.68	28.38	141.89
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.44	22.12	0.14	5.68	28.38
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.57	39.14	10.26	51.28
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.57	43.69	11.39	56.96
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	16.38	4.27	21.36
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	19.11	4.95	24.77
304a	SINGLE SURFACE TREATMENT	SM	0.80	7.57	78.05	21.61	108.03
304b	DOUBLE SURFACE TREATMENT	SM	1.16	14.15	151.17	41.62	208.11
304c	TRIPLE SURFACE TREATMENT	SM	1.96	19.94	172.48	48.59	242.97
304d	SEAL COAT	SM	0.74	4.12	55.01	14.97	74.84

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	74.21	1,489.33	7,300.44	2,216.00	11,079.98
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	74.21	1,438.23	7,888.15	2,350.15	11,750.74
307a	DENSE GRADED HOT BIT-MAC	CM	182.91	379.77	6,086.42	1,662.27	8,311.37
307b	OPEN GRADED HOT BIT-MAC	CM	182.91	379.77	5,911.72	1,618.60	8,093.00
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	30.69	590.65	2,123.13	686.12	3,430.59
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	28.39	650.70	47,291.92	11,992.75	59,963.76
309a	COLD MILLING, 0 - 30 mm	SM	1.00	24.99	8.68	8.67	43.33
309b	COLD MILLING, 0 - 50 mm	SM	1.67	41.65	14.46	14.44	72.22
309c	COLD MILLING, 0 - 70 mm	SM	2.50	62.48	21.69	21.67	108.34
401a1i	CONCRETE CLASS "A1" (Underground)	CM	585.32	1,059.94	3,924.75	1,392.50	6,962.51
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	585.32	1,059.94	4,202.22	1,461.87	7,309.35
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	585.32	1,059.94	4,757.17	1,600.61	8,003.03
401a2i	CONCRETE CLASS "A2" (Underground)	CM	585.32	1,059.94	4,302.75	1,487.00	7,435.01
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	585.32	1,059.94	4,580.22	1,556.37	7,781.85
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	585.32	1,059.94	5,135.17	1,695.11	8,475.53
401a3i	CONCRETE CLASS "A3" (Underground)	CM	585.32	1,059.94	4,680.75	1,581.50	7,907.51
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	585.32	1,059.94	4,958.22	1,650.87	8,254.35
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	585.32	1,059.94	5,513.17	1,789.61	8,948.03
401b	CONCRETE CLASS "B"	CM	747.73	805.93	3,155.19	1,177.21	5,886.06
401ci	CONCRETE CLASS "C" (Underground)	CM	586.28	500.55	3,481.48	1,142.08	5,710.39
401cii	CONCRETE CLASS "C" (On ground)	CM	586.28	500.55	3,599.82	1,171.66	5,858.32
401ciii	CONCRETE CLASS "C" (Elevated)	CM	586.28	500.55	3,836.51	1,230.83	6,154.17
401d	CONCRETE CLASS "D1"	CM	928.64	1,265.57	5,266.77	1,865.24	9,326.21
401e	CONCRETE CLASS "Y"	CM	1,316.75	500.55	4,714.16	1,632.86	8,164.32
401f	LEAN CONCRETE	CM	503.54	507.52	2,425.97	859.26	4,296.29
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	2,017.87	947.15	4,924.54	1,972.39	9,861.95
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	2,017.87	947.15	5,680.54	2,161.39	10,806.95
401gii	PRECAST CONCRETE CLASS "B"	CM	2,017.87	947.15	4,681.42	1,911.61	9,558.05
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	2,017.87	947.15	6,058.54	2,255.89	11,279.45

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	2,017.87	947.15	6,436.54	2,350.39	11,751.95
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	2,017.87	947.15	6,814.54	2,444.89	12,224.45
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,802.64	781.47	60,842.00	15,856.53	79,282.64
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,802.64	781.47	68,192.00	17,694.03	88,470.14
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,448.99	5,393.81	56,542.49	15,846.32	79,231.62
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,873.81	15,659.05	133,838.87	38,092.93	190,464.67
405b	LAUNCHING OF GIRDER	TON	68.00	532.52	-	150.13	750.65
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	131.45	-	305.68	109.28	546.41
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	131.45	-	304.89	109.08	545.42
406c	STEEL EXPANSION JOINTS	KG	10.88	26.40	91.31	32.15	160.73
406d	WATER STOPS 6" SIZE	M	110.37	-	469.93	145.07	725.37
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	47.29	-	3,065.71	778.25	3,891.26
406g	STEEL OR METAL BEARING DEVICES	KG	22.67	69.68	119.04	52.85	264.24
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	375.34	1,654.04	903.13	733.13	3,665.64
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	563.00	2,481.06	1,354.70	1,099.69	5,498.45
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	563.00	2,481.06	1,002.75	1,011.70	5,058.52
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	938.34	4,135.11	1,183.21	1,564.16	7,820.82
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	804.29	4,884.94	1,368.56	1,764.45	8,822.24
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,407.51	6,909.78	1,500.29	2,454.40	12,271.98
407h	PILE LOAD TEST UP TO 120 TON	EACH	26,948.44	45,769.30	90,203.26	40,730.25	203,651.26
407i	PILE LOAD TEST UP TO 240 TON	EACH	50,661.04	45,769.30	180,406.52	69,209.22	346,046.08
407j	PILE LOAD TEST UP TO 360 TON	EACH	74,373.63	50,188.38	270,609.78	98,792.95	493,964.74
407k	CONFIRMATORY BORING (NX SIZE)	M	225.35	1,582.02	6.37	453.43	2,267.17
410	BRICK WORK	CM	389.20	282.72	3,119.01	947.73	4,738.67
411a	STONE MASONRY RANDOM DRY	CM	328.42	107.96	551.78	247.04	1,235.20
411b	STONE MASONRY RANDOM WITH MORTAR	CM	353.70	166.68	1,578.12	524.62	2,623.12
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	431.67	107.96	613.00	288.16	1,440.79
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	508.57	166.68	1,650.38	581.41	2,907.04

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	83.41	11.74	43.75	34.72	173.62
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	689.78	264.08	1,555.58	627.36	3,136.80
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	265.21	437.48	643.39	336.52	1,682.61
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	259.02	577.19	834.17	417.59	2,087.97
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	248.57	935.96	1,069.85	563.60	2,817.98
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	261.90	1,146.39	1,598.23	751.63	3,758.15
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	299.40	1,078.41	2,297.87	918.92	4,594.60
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	368.40	1,331.30	3,614.54	1,328.56	6,642.80
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	476.75	1,481.41	4,680.50	1,659.66	8,298.32
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	560.86	1,798.85	5,964.68	2,081.10	10,405.49
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	665.51	2,098.66	9,213.95	2,994.53	14,972.66
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	265.21	507.33	722.10	373.66	1,868.31
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	259.02	577.19	852.99	422.30	2,111.50
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	242.64	935.96	1,044.43	555.76	2,778.79
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	261.90	1,146.39	1,743.69	788.00	3,939.98
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	299.40	1,078.41	3,316.03	1,173.46	5,867.31
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	368.40	1,331.30	4,871.85	1,642.89	8,214.44
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	476.75	1,481.41	6,808.93	2,191.77	10,958.86
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	560.86	1,798.85	9,234.95	2,898.67	14,493.33
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	665.51	2,098.66	12,992.82	3,939.25	19,696.24
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	102.61	118.93	287.07	127.15	635.75
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	851.42	612.95	3,505.19	1,242.39	6,211.95
507a	STEEL WIRE MESH FOR GABIONS	KG	6.08	-	110.38	29.11	145.57
507b	ROCK FILL IN GABIONS	CM	111.92	-	352.92	116.21	581.04
508a	BRICK PAVING (SINGLE COURSE)	SM	128.91	32.70	250.12	102.93	514.66
508b	BRICK PAVING (DOUBLE COURSE)	SM	232.15	32.70	497.64	190.62	953.12
509a	RIP RAP CLASS "A"	CM	559.82	-	456.98	254.20	1,271.00
509b	RIP RAP CLASS "B"	CM	540.99	-	453.32	248.58	1,242.89
509c	RIP RAP CLASS "C"	CM	545.29	-	456.98	250.57	1,252.83

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	683.69	102.14	1,849.95	658.95	3,294.73
509e	GROUTED RIP RAP CLASS "B"	CM	660.31	81.72	1,701.61	610.91	3,054.54
509f	GROUTED RIP RAP CLASS "C"	CM	653.50	68.10	1,746.83	617.11	3,085.54
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	911.79	353.02	4,072.29	1,334.28	6,671.38
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	55.09	191.97	341.18	147.06	735.30
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	121.36	390.69	-	128.01	640.07
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	175.23	67.48	74.26	79.24	396.21
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	224.30	86.37	95.05	101.43	507.14
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	285.81	180.32	371.64	209.44	1,047.22
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	357.27	225.40	464.55	261.81	1,309.03
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	310.41	572.25	2,199.64	770.57	3,852.87
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,107.10	670.54	4,065.84	1,460.87	7,304.35
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	160.54	90.27	425.82	169.16	845.78
603	BRICK EDGING	M	10.17	-	40.42	12.65	63.24
604a	METAL GUARD RAIL	M	20.23	70.84	1,579.36	417.61	2,088.04
604b	METAL GUARD RAIL END PIECES	EACH	28.15	-	1,197.58	306.43	1,532.15
604d	STEEL POST OF METAL GUARD RAIL	EACH	92.54	976.73	3,776.31	1,211.39	6,056.97
605a	CONCRETE BEAM GUARD RAIL	M	87.77	30.82	594.26	178.21	891.06
605c	CONCRETE POST FOR GUARD RAIL	M	107.77	27.36	594.53	182.42	912.08
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	270.26	255.15	6,855.57	1,845.24	9,226.22
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	79.67	382.72	9,245.65	2,427.01	12,135.05
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	270.26	541.89	11,866.42	3,169.64	15,848.21
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	903.84	598.64	20,927.09	5,607.39	28,036.97
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	180.77	119.73	9,206.60	2,376.77	11,883.87
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	316.02	-	1,303.98	405.00	2,024.99
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	316.02	-	1,955.96	567.99	2,839.97
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.08	5.86	16.17	6.28	31.38
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	1.03	4.03	39.77	11.21	56.03
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.08	5.86	21.58	7.63	38.14

District: Lucky Murwat **District Code: 41-B**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	1.03	4.03	53.05	14.53	72.63
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	89.41	5.22	156.28	62.73	313.63
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	89.41	9.98	501.20	150.15	750.75
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.84	8.59	22.49	8.73	43.65
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.84	9.63	67.50	20.24	101.22
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.84	6.95	29.99	10.20	50.98
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.84	9.63	90.01	25.87	129.35
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	89.41	3.73	217.14	77.57	387.84
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	89.41	7.90	851.20	237.13	1,185.64
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	74.25	3.73	104.19	45.54	227.70
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	74.25	7.90	334.64	104.20	520.98
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	74.25	3.73	144.76	55.68	278.41
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	74.25	7.90	568.32	162.62	813.09
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	10.34	81.62	193.80	71.44	357.20
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	10.34	81.62	233.80	81.44	407.19
610b	RIGHT OF WAY MARKER	EACH	121.74	121.33	300.09	135.79	678.95
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	745.53	976.31	2,018.48	935.08	4,675.39
610d	TEN KILOMETRE POST	EACH	1,440.50	1,952.61	4,434.84	1,956.99	9,784.95
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	151.04	91.00	950.20	298.06	1,490.31

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

MALAKAND
(42)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Malakand **District Code: 42**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.59	10.10	-	2.67	13.37
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.10	173.32	1.17	45.15	225.74
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	17.23	456.54	2.63	119.10	595.50
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	68.93	1,826.16	10.51	476.40	2,382.00
103	STRIPPING	CM	2.22	93.22	-	23.86	119.30
104	COMPACTION OF NATURAL GROUND	SM	0.32	9.91	0.76	2.75	13.74
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.09	135.76	-	34.96	174.81
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	108.10	316.30	50.82	118.81	594.03
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	14.48	337.99	-	88.12	440.60
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	9.55	262.40	-	67.99	339.93
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.34	120.27	-	30.90	154.52
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	108.10	316.30	50.82	118.81	594.03
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	17.16	316.03	-	83.30	416.49
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	7.35	263.92	-	67.82	339.10
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.61	137.60	0.38	36.15	180.74
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	55.47	287.11	70.80	103.35	516.73
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	95.34	427.01	33.88	139.06	695.29
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	80.06	292.53	-	93.15	465.74
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	49.03	238.86	-	71.97	359.87
107d	GRANULAR BACK FILL	CM	28.65	137.14	395.98	140.44	702.21
107e	COMMON BACK FILL	CM	20.69	62.84	5.09	22.15	110.77
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	5.92	174.71	5.09	46.43	232.15
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	17.17	482.48	54.04	138.42	692.11
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	12.88	416.71	2.42	108.00	540.01
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	11.44	369.34	-	95.20	475.99
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	6.70	177.46	7.94	48.02	240.12
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.37	76.32	5.09	21.69	108.47
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	12.33	110.29	3.03	31.41	157.05
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.20	27.34	1.46	7.50	37.49

District: Malakand **District Code: 42**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.89	18.21	0.77	4.97	24.84
110	IMPROVED SUB-GRADE	CM	8.50	120.02	77.43	51.49	257.44
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.75	15.26	0.79	4.20	21.00
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.10	15.57	0.90	4.39	21.95
201	GRANULAR SUB-BASE	CM	6.77	255.06	528.84	197.67	988.34
202	AGGREGATE BASE	CM	7.84	326.54	716.61	262.75	1,313.74
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	58.31	1,510.17	6,021.56	1,897.51	9,487.54
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	60.29	1,510.17	6,435.32	2,001.44	10,007.22
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	64.88	1,577.28	6,011.52	1,913.42	9,567.11
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	64.88	1,571.31	6,582.07	2,054.56	10,272.82
204b	CEMENT STABILIZED BASE	CM	23.80	569.10	1,028.28	405.30	2,026.49
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	210.59	915.38	52,944.03	13,517.50	67,587.50
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	210.59	915.38	51,365.90	13,122.97	65,614.84
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	76.35	112.80	897.86	271.75	1,358.76
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	121.06	2,437.94	5,683.23	2,060.56	10,302.80
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	83.33	126.27	756.53	241.53	1,207.66
207a	DEEP PATCHING (0-15 cm)	SM	1.52	45.04	1.26	11.95	59.77
207b	DEEP PATCHING (16-30 cm)	SM	1.52	39.67	1.26	10.61	53.07
208	REINSTATEMENT OF ROAD SURFACE	SM	1.57	57.10	0.56	14.81	74.05
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.00	110.61	0.68	28.32	141.61
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.40	22.12	0.14	5.66	28.32
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.25	1.57	37.58	9.85	49.25
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.24	1.57	41.94	10.94	54.70
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	15.73	4.10	20.51
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	18.35	4.76	23.79
304a	SINGLE SURFACE TREATMENT	SM	0.65	7.57	74.71	20.73	103.67
304b	DOUBLE SURFACE TREATMENT	SM	0.95	14.15	144.54	39.91	199.55
304c	TRIPLE SURFACE TREATMENT	SM	1.61	19.94	164.91	46.61	233.07
304d	SEAL COAT	SM	0.60	4.12	52.93	14.41	72.07

District: Malakand **District Code: 42**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	55.04	1,489.33	7,064.48	2,152.21	10,761.06
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	55.04	1,438.23	7,628.62	2,280.47	11,402.36
307a	DENSE GRADED HOT BIT-MAC	CM	133.73	379.77	5,867.54	1,595.26	7,976.30
307b	OPEN GRADED HOT BIT-MAC	CM	133.73	379.77	5,688.56	1,550.52	7,752.58
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	23.37	590.65	2,066.44	670.11	3,350.57
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	22.51	650.70	45,020.56	11,423.44	57,117.21
309a	COLD MILLING, 0 - 30 mm	SM	0.81	24.99	8.68	8.62	43.09
309b	COLD MILLING, 0 - 50 mm	SM	1.35	41.65	14.46	14.36	71.82
309c	COLD MILLING, 0 - 70 mm	SM	2.02	62.48	21.69	21.55	107.74
401a1i	CONCRETE CLASS "A1" (Underground)	CM	470.65	1,059.94	3,957.32	1,371.98	6,859.88
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	470.65	1,059.94	4,234.80	1,441.34	7,206.72
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	470.65	1,059.94	4,789.74	1,580.08	7,900.40
401a2i	CONCRETE CLASS "A2" (Underground)	CM	470.65	1,059.94	4,335.32	1,466.48	7,332.38
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	470.65	1,059.94	4,612.80	1,535.84	7,679.22
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	470.65	1,059.94	5,167.74	1,674.58	8,372.90
401a3i	CONCRETE CLASS "A3" (Underground)	CM	470.65	1,059.94	4,713.32	1,560.98	7,804.88
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	470.65	1,059.94	4,990.80	1,630.34	8,151.72
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	470.65	1,059.94	5,545.74	1,769.08	8,845.40
401b	CONCRETE CLASS "B"	CM	597.07	805.93	3,160.51	1,140.88	5,704.39
401ci	CONCRETE CLASS "C" (Underground)	CM	464.47	500.55	3,496.88	1,115.47	5,577.37
401cii	CONCRETE CLASS "C" (On ground)	CM	464.47	500.55	3,615.22	1,145.06	5,725.30
401ciii	CONCRETE CLASS "C" (Elevated)	CM	464.47	500.55	3,851.91	1,204.23	6,021.15
401d	CONCRETE CLASS "D1"	CM	738.77	1,265.57	5,292.74	1,824.27	9,121.35
401e	CONCRETE CLASS "Y"	CM	1,028.48	500.55	4,752.87	1,570.47	7,852.37
401f	LEAN CONCRETE	CM	379.67	507.52	2,431.20	829.60	4,147.98
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,560.36	947.15	4,962.45	1,867.49	9,337.46
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,560.36	947.15	5,718.45	2,056.49	10,282.46
401gii	PRECAST CONCRETE CLASS "B"	CM	1,560.36	947.15	4,685.02	1,798.13	8,990.67
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,560.36	947.15	6,096.45	2,150.99	10,754.96

District: Malakand **District Code: 42**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,560.36	947.15	6,474.45	2,245.49	11,227.46
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,560.36	947.15	6,852.45	2,339.99	11,699.96
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,445.94	781.47	60,736.00	15,740.85	78,704.26
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,445.94	781.47	68,086.00	17,578.35	87,891.76
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,147.38	5,393.81	56,467.29	15,752.12	78,760.60
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,333.44	15,659.05	133,885.80	37,969.57	189,847.87
405b	LAUNCHING OF GIRDER	TON	55.05	532.52	-	146.89	734.46
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	100.44	-	304.79	101.31	506.54
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	100.44	-	303.87	101.08	505.38
406c	STEEL EXPANSION JOINTS	KG	8.34	26.40	91.44	31.54	157.71
406d	WATER STOPS 6" SIZE	M	88.41	-	472.65	140.27	701.33
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.01	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	38.88	-	2,992.67	757.89	3,789.44
406g	STEEL OR METAL BEARING DEVICES	KG	16.84	69.68	118.30	51.21	256.03
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	306.83	1,654.04	910.36	717.81	3,589.04
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	460.24	2,481.06	1,365.55	1,076.71	5,383.56
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	460.24	2,481.06	1,013.47	988.69	4,943.46
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	767.06	4,135.11	1,201.08	1,525.81	7,629.07
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	657.48	4,884.94	1,400.09	1,735.63	8,678.15
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,150.59	6,909.78	1,527.11	2,396.87	11,984.35
407h	PILE LOAD TEST UP TO 120 TON	EACH	18,577.21	45,769.30	98,475.26	40,705.44	203,527.21
407i	PILE LOAD TEST UP TO 240 TON	EACH	34,351.60	45,769.30	196,950.52	69,267.86	346,339.28
407j	PILE LOAD TEST UP TO 360 TON	EACH	50,125.99	50,188.38	295,425.78	98,935.04	494,675.20
407k	CONFIRMATORY BORING (NX SIZE)	M	167.77	1,582.02	6.37	439.04	2,195.20
410	BRICK WORK	CM	313.25	282.72	3,084.04	920.00	4,600.02
411a	STONE MASONRY RANDOM DRY	CM	262.81	107.96	534.02	226.20	1,130.99
411b	STONE MASONRY RANDOM WITH MORTAR	CM	285.56	166.68	1,579.15	507.85	2,539.24
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	343.37	107.96	593.83	261.29	1,306.45
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	406.40	166.68	1,645.31	554.60	2,772.98

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	67.68	11.74	44.06	30.87	154.36
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	544.76	264.08	1,550.50	589.84	2,949.18
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	192.55	437.48	643.98	318.50	1,592.52
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	186.80	577.19	834.87	399.72	1,998.58
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	184.85	935.96	1,070.67	547.87	2,739.36
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	191.95	1,146.39	1,599.19	734.38	3,671.91
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	219.17	1,078.41	2,298.83	899.10	4,495.52
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	271.40	1,331.30	3,615.93	1,304.66	6,523.28
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	351.22	1,481.41	4,681.88	1,628.63	8,143.13
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	410.23	1,798.85	5,966.36	2,043.86	10,219.30
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	489.73	2,098.66	9,215.91	2,951.08	14,755.38
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	192.55	507.33	723.27	355.79	1,778.94
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	186.80	577.19	853.69	404.42	2,022.10
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	180.16	935.96	1,045.25	540.34	2,701.71
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	191.95	1,146.39	1,744.43	770.69	3,853.47
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	219.17	1,078.41	3,317.10	1,153.67	5,768.36
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	271.40	1,331.30	4,873.24	1,618.98	8,094.92
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	351.22	1,481.41	6,810.31	2,160.73	10,803.67
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	410.23	1,798.85	9,236.63	2,861.43	14,307.14
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	489.73	2,098.66	12,994.77	3,895.79	19,478.96
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	76.13	118.93	399.87	148.73	743.66
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	679.54	612.95	3,510.51	1,200.75	6,003.75
507a	STEEL WIRE MESH FOR GABIONS	KG	4.67	-	109.86	28.63	143.16
507b	ROCK FILL IN GABIONS	CM	80.15	-	352.92	108.27	541.34
508a	BRICK PAVING (SINGLE COURSE)	SM	100.24	32.70	249.17	95.53	477.65
508b	BRICK PAVING (DOUBLE COURSE)	SM	180.80	32.70	494.80	177.08	885.38
509a	RIP RAP CLASS "A"	CM	441.59	-	439.21	220.20	1,101.00
509b	RIP RAP CLASS "B"	CM	424.73	-	435.70	215.11	1,075.53
509c	RIP RAP CLASS "C"	CM	428.65	-	439.21	216.97	1,084.83

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	537.11	102.14	1,843.94	620.80	3,103.99
509e	GROUTED RIP RAP CLASS "B"	CM	519.35	81.72	1,694.51	573.89	2,869.47
509f	GROUTED RIP RAP CLASS "C"	CM	513.35	68.10	1,740.03	580.37	2,901.84
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	709.53	353.02	4,077.28	1,284.96	6,424.80
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	39.62	191.97	396.45	157.01	785.06
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	92.82	390.69	-	120.88	604.39
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	138.03	67.48	71.37	69.22	346.09
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	176.67	86.37	91.36	88.60	443.00
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	227.10	180.32	371.17	194.65	973.24
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	283.87	225.40	463.97	243.31	1,216.55
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	249.42	572.25	2,216.57	759.56	3,797.80
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	858.11	670.54	4,083.35	1,403.00	7,015.00
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	124.48	90.27	428.88	160.91	804.54
603	BRICK EDGING	M	7.89	-	39.46	11.84	59.18
604a	METAL GUARD RAIL	M	16.22	70.84	1,579.36	416.60	2,083.02
604b	METAL GUARD RAIL END PIECES	EACH	22.09	-	1,197.58	304.92	1,524.58
604d	STEEL POST OF METAL GUARD RAIL	EACH	76.16	976.73	3,776.31	1,207.30	6,036.50
605a	CONCRETE BEAM GUARD RAIL	M	64.28	30.82	595.22	172.58	862.90
605c	CONCRETE POST FOR GUARD RAIL	M	78.92	27.36	595.78	175.52	877.58
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	202.15	255.15	6,850.96	1,827.07	9,135.33
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	64.50	382.72	9,242.90	2,422.53	12,112.66
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	202.15	541.89	11,862.60	3,151.66	15,758.30
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	640.54	598.64	20,918.75	5,539.48	27,697.42
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	128.11	119.73	9,201.80	2,362.41	11,812.04
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	257.14	-	1,303.04	390.04	1,950.22
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	257.14	-	1,954.55	552.92	2,764.61
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.41	5.86	16.16	6.11	30.54
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.80	4.03	39.65	11.12	55.61
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.41	5.86	21.56	7.46	37.29

District: Malakand **District Code: 42**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.80	4.03	52.89	14.43	72.15
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	69.38	5.22	156.16	57.69	288.44
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	69.38	9.98	499.68	144.76	723.80
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.01	8.59	22.48	8.52	42.60
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.01	9.63	67.50	20.04	100.19
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.01	6.95	29.97	9.98	49.92
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.01	9.63	90.01	25.66	128.32
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	69.38	3.73	217.02	72.53	362.65
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	69.38	7.90	851.20	232.12	1,160.60
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	57.58	3.73	104.11	41.35	206.76
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	57.58	7.90	333.62	99.77	498.87
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	57.58	3.73	144.68	51.49	257.47
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	57.58	7.90	568.32	158.45	792.25
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.82	81.62	193.82	71.07	355.33
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.82	81.62	233.82	81.07	405.33
610b	RIGHT OF WAY MARKER	EACH	87.31	121.33	301.53	127.54	637.70
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	556.83	976.31	2,030.11	890.81	4,454.06
610d	TEN KILOMETRE POST	EACH	1,062.01	1,952.61	4,457.19	1,867.95	9,339.76
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	118.43	91.00	951.06	290.13	1,450.63

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

MANSEHRA
(43)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.64	10.10	-	2.69	13.43
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.87	173.32	1.17	45.34	226.69
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	18.96	456.54	2.63	119.53	597.66
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	75.83	1,826.16	10.51	478.12	2,390.62
103	STRIPPING	CM	2.44	93.22	-	23.92	119.58
104	COMPACTION OF NATURAL GROUND	SM	0.36	9.91	0.76	2.76	13.79
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.25	135.76	-	35.25	176.26
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	134.43	316.30	50.82	125.39	626.93
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	17.55	337.99	-	88.89	444.43
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	11.57	262.40	-	68.49	342.46
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.30	120.27	-	31.14	155.71
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	134.43	316.30	50.82	125.39	626.93
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	21.50	316.03	-	84.38	421.92
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.91	263.92	-	68.21	341.05
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.98	137.60	0.38	36.49	182.45
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	61.11	287.11	70.80	104.76	523.79
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	119.46	427.01	33.88	145.09	725.45
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	100.28	292.53	-	98.20	491.02
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	61.44	238.86	-	75.08	375.38
107d	GRANULAR BACK FILL	CM	33.49	137.14	469.73	160.09	800.45
107e	COMMON BACK FILL	CM	22.01	62.84	5.09	22.48	112.42
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.20	174.71	5.09	46.75	233.75
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	20.32	482.48	54.04	139.21	696.05
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	15.24	416.71	2.42	108.59	542.96
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	13.55	369.34	-	95.72	478.61
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.98	177.46	7.94	48.34	241.72
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.40	76.32	5.09	21.95	109.76
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	14.16	110.29	3.03	31.87	159.34
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.44	27.34	1.46	7.56	37.79

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.05	18.21	0.77	5.01	25.03
110	IMPROVED SUB-GRADE	CM	10.10	120.02	56.20	46.58	232.89
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.84	15.26	0.79	4.22	21.12
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.24	15.57	0.90	4.43	22.14
201	GRANULAR SUB-BASE	CM	8.20	255.06	616.97	220.06	1,100.28
202	AGGREGATE BASE	CM	10.20	326.54	780.88	279.41	1,397.03
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	65.74	1,510.17	5,984.60	1,890.13	9,450.63
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	68.62	1,510.17	6,393.95	1,993.18	9,965.92
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	73.41	1,577.28	5,974.66	1,906.34	9,531.69
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	73.41	1,571.31	6,539.97	2,046.17	10,230.85
204b	CEMENT STABILIZED BASE	CM	30.16	569.10	1,028.25	406.88	2,034.40
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	246.88	915.38	52,507.71	13,417.49	67,087.46
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	246.88	915.38	50,929.58	13,022.96	65,114.80
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	79.47	112.80	897.90	272.54	1,362.72
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	140.98	2,437.94	5,653.69	2,058.15	10,290.76
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	87.07	126.27	788.83	250.54	1,252.72
207a	DEEP PATCHING (0-15 cm)	SM	1.78	45.04	1.26	12.02	60.08
207b	DEEP PATCHING (16-30 cm)	SM	1.78	39.67	1.26	10.68	53.38
208	REINSTATEMENT OF ROAD SURFACE	SM	2.00	57.10	0.56	14.91	74.57
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.27	110.61	0.68	28.39	141.95
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.45	22.12	0.14	5.68	28.39
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.57	37.27	9.79	48.94
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.57	41.60	10.87	54.34
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	15.60	4.08	20.38
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	18.20	4.72	23.62
304a	SINGLE SURFACE TREATMENT	SM	0.83	7.57	74.06	20.62	103.08
304b	DOUBLE SURFACE TREATMENT	SM	1.20	14.15	143.28	39.66	198.29
304c	TRIPLE SURFACE TREATMENT	SM	2.03	19.94	163.47	46.36	231.80
304d	SEAL COAT	SM	0.78	4.12	52.49	14.35	71.74

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	63.78	1,489.33	7,016.99	2,142.53	10,712.63
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	63.78	1,438.23	7,575.87	2,269.47	11,347.36
307a	DENSE GRADED HOT BIT-MAC	CM	154.10	379.77	5,821.73	1,588.90	7,944.50
307b	OPEN GRADED HOT BIT-MAC	CM	154.10	379.77	5,644.92	1,544.70	7,723.50
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	27.21	590.65	2,056.08	668.48	3,342.42
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	25.81	650.70	44,571.28	11,311.95	56,559.74
309a	COLD MILLING, 0 - 30 mm	SM	1.01	24.99	8.68	8.67	43.34
309b	COLD MILLING, 0 - 50 mm	SM	1.68	41.65	14.46	14.45	72.24
309c	COLD MILLING, 0 - 70 mm	SM	2.52	62.48	21.69	21.67	108.36
401a1i	CONCRETE CLASS "A1" (Underground)	CM	511.44	1,059.94	3,936.44	1,376.95	6,884.77
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	511.44	1,059.94	4,213.91	1,446.32	7,231.61
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	511.44	1,059.94	4,768.86	1,585.06	7,925.29
401a2i	CONCRETE CLASS "A2" (Underground)	CM	511.44	1,059.94	4,314.44	1,471.45	7,357.27
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	511.44	1,059.94	4,591.91	1,540.82	7,704.11
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	511.44	1,059.94	5,146.86	1,679.56	8,397.79
401a3i	CONCRETE CLASS "A3" (Underground)	CM	511.44	1,059.94	4,692.44	1,565.95	7,829.77
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	511.44	1,059.94	4,969.91	1,635.32	8,176.61
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	511.44	1,059.94	5,524.86	1,774.06	8,870.29
401b	CONCRETE CLASS "B"	CM	666.77	805.93	3,137.40	1,152.53	5,762.63
401ci	CONCRETE CLASS "C" (Underground)	CM	489.90	500.55	3,475.15	1,116.40	5,582.01
401cii	CONCRETE CLASS "C" (On ground)	CM	489.90	500.55	3,593.50	1,145.99	5,729.93
401ciii	CONCRETE CLASS "C" (Elevated)	CM	489.90	500.55	3,830.18	1,205.16	6,025.79
401d	CONCRETE CLASS "D1"	CM	776.43	1,265.57	5,273.89	1,828.97	9,144.86
401e	CONCRETE CLASS "Y"	CM	1,055.91	500.55	4,733.63	1,572.52	7,862.61
401f	LEAN CONCRETE	CM	397.68	507.52	2,407.72	828.23	4,141.15
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,624.82	947.15	4,939.82	1,877.95	9,389.74
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,624.82	947.15	5,695.82	2,066.95	10,334.74
401gii	PRECAST CONCRETE CLASS "B"	CM	1,624.82	947.15	4,662.43	1,808.60	9,042.99
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,624.82	947.15	6,073.82	2,161.45	10,807.24

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,624.82	947.15	6,451.82	2,255.95	11,279.74
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,624.82	947.15	6,829.82	2,350.45	11,752.24
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,538.63	781.47	60,126.50	15,611.65	78,058.26
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,538.63	781.47	67,476.50	17,449.15	87,245.76
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,246.10	5,393.81	56,040.58	15,670.12	78,350.62
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,860.52	15,659.05	133,865.31	38,096.22	190,481.10
405b	LAUNCHING OF GIRDER	TON	66.02	532.52	-	149.63	748.17
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	107.88	-	304.56	103.11	515.56
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	107.88	-	303.62	102.88	514.38
406c	STEEL EXPANSION JOINTS	KG	8.85	26.40	90.77	31.50	157.51
406d	WATER STOPS 6" SIZE	M	91.39	-	472.55	140.98	704.92
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	42.23	-	2,979.50	755.43	3,777.16
406g	STEEL OR METAL BEARING DEVICES	KG	19.52	69.68	117.64	51.71	258.55
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	353.91	1,654.04	910.51	729.62	3,648.08
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	530.87	2,481.06	1,365.77	1,094.43	5,472.13
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	530.87	2,481.06	1,013.72	1,006.41	5,032.06
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	884.78	4,135.11	1,201.50	1,555.35	7,776.73
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	758.38	4,884.94	1,400.63	1,760.99	8,804.94
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,327.17	6,909.78	1,527.73	2,441.17	12,205.85
407h	PILE LOAD TEST UP TO 120 TON	EACH	19,648.26	45,769.30	100,542.38	41,489.99	207,449.94
407i	PILE LOAD TEST UP TO 240 TON	EACH	35,422.66	45,769.30	201,084.76	70,569.18	352,845.90
407j	PILE LOAD TEST UP TO 360 TON	EACH	51,197.05	50,188.38	301,627.14	100,753.14	503,765.72
407k	CONFIRMATORY BORING (NX SIZE)	M	184.51	1,582.02	6.37	443.23	2,216.13
410	BRICK WORK	CM	317.65	282.72	2,999.01	899.84	4,499.22
411a	STONE MASONRY RANDOM DRY	CM	266.97	107.96	613.48	247.10	1,235.52
411b	STONE MASONRY RANDOM WITH MORTAR	CM	289.72	166.68	1,639.82	524.06	2,620.28
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	347.53	107.96	679.65	283.79	1,418.93
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	410.56	166.68	1,717.03	573.57	2,867.84

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	67.98	11.74	43.75	30.87	154.34
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	548.92	264.08	1,622.22	608.81	3,044.04
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	199.53	437.48	643.39	320.10	1,600.51
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	192.30	577.19	834.17	400.91	2,004.57
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	196.60	935.96	1,069.85	550.60	2,753.02
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	202.63	1,146.39	1,598.23	736.81	3,684.06
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	234.98	1,078.41	2,297.87	902.82	4,514.08
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	295.38	1,331.30	3,614.54	1,310.31	6,551.53
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	382.26	1,481.41	4,680.50	1,636.04	8,180.20
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	447.92	1,798.85	5,964.68	2,052.86	10,264.32
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	533.71	2,098.66	9,213.95	2,961.58	14,807.90
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	199.53	507.33	722.10	357.24	1,786.21
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	192.30	577.19	852.99	405.62	2,028.09
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	191.91	935.96	1,044.43	543.07	2,715.37
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	202.63	1,146.39	1,743.69	773.18	3,865.88
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	234.98	1,078.41	3,316.03	1,157.36	5,786.79
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	295.38	1,331.30	4,871.85	1,624.63	8,123.17
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	382.26	1,481.41	6,808.93	2,168.15	10,840.74
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	447.92	1,798.85	9,234.95	2,870.43	14,352.16
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	533.71	2,098.66	12,992.82	3,906.30	19,531.48
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	81.78	118.93	428.06	157.19	785.95
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	743.29	612.95	3,487.40	1,210.91	6,054.55
507a	STEEL WIRE MESH FOR GABIONS	KG	5.17	-	109.00	28.54	142.71
507b	ROCK FILL IN GABIONS	CM	83.82	-	423.50	126.83	634.15
508a	BRICK PAVING (SINGLE COURSE)	SM	102.38	32.70	242.44	94.38	471.90
508b	BRICK PAVING (DOUBLE COURSE)	SM	182.94	32.70	481.10	174.18	870.92
509a	RIP RAP CLASS "A"	CM	449.91	-	518.68	242.15	1,210.73
509b	RIP RAP CLASS "B"	CM	431.38	-	514.53	236.48	1,182.38
509c	RIP RAP CLASS "C"	CM	434.20	-	518.68	238.22	1,191.09

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	548.26	102.14	1,911.65	640.51	3,202.56
509e	GROUTED RIP RAP CLASS "B"	CM	528.26	81.72	1,762.81	593.20	2,965.99
509f	GROUTED RIP RAP CLASS "C"	CM	520.78	68.10	1,808.53	599.35	2,996.75
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	734.97	353.02	4,055.43	1,285.86	6,429.28
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	41.96	191.97	469.98	175.98	879.90
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	98.76	390.69	-	122.36	611.82
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	141.19	67.48	84.28	73.24	366.18
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	180.72	86.37	107.88	93.74	468.71
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	231.14	180.32	379.89	197.84	989.19
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	288.93	225.40	474.86	247.30	1,236.49
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	271.10	572.25	2,205.69	762.26	3,811.30
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	893.74	670.54	4,058.90	1,405.79	7,028.97
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	129.98	90.27	426.74	161.75	808.74
603	BRICK EDGING	M	8.14	-	38.11	11.56	57.82
604a	METAL GUARD RAIL	M	18.95	70.84	1,579.36	417.29	2,086.44
604b	METAL GUARD RAIL END PIECES	EACH	23.58	-	1,197.58	305.29	1,526.44
604d	STEEL POST OF METAL GUARD RAIL	EACH	90.29	976.73	3,776.31	1,210.83	6,054.16
605a	CONCRETE BEAM GUARD RAIL	M	65.50	30.82	591.73	172.01	860.06
605c	CONCRETE POST FOR GUARD RAIL	M	80.43	27.36	591.86	174.91	874.56
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	219.42	255.15	6,853.75	1,832.08	9,160.40
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	63.61	382.72	9,243.69	2,422.51	12,112.53
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	219.42	541.89	11,862.38	3,155.92	15,779.60
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	666.44	598.64	20,924.05	5,547.28	27,736.41
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	133.29	119.73	9,208.26	2,365.32	11,826.60
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	286.86	-	1,304.87	397.93	1,989.66
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	286.86	-	1,957.31	561.04	2,805.21
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.52	5.86	16.16	6.13	30.67
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.84	4.03	39.67	11.14	55.68
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.52	5.86	21.57	7.49	37.43

District: Mansehra **District Code: 43**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.84	4.03	52.91	14.45	72.23
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.48	5.22	156.18	57.97	289.85
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.48	9.98	499.94	145.10	725.51
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.14	8.59	22.48	8.55	42.77
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.14	9.63	67.50	20.07	100.35
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.14	6.95	29.97	10.02	50.09
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.14	9.63	90.01	25.70	128.48
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.48	3.73	217.04	72.81	364.06
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.48	7.90	851.20	232.39	1,161.97
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	58.68	3.73	104.12	41.63	208.16
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	58.68	7.90	333.80	100.09	500.47
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	58.68	3.73	144.69	51.77	258.87
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	58.68	7.90	568.32	158.72	793.62
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.60	81.62	193.80	71.01	355.03
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.60	81.62	233.80	81.00	405.02
610b	RIGHT OF WAY MARKER	EACH	89.22	121.33	300.02	127.64	638.21
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	567.83	976.31	2,014.67	889.70	4,448.51
610d	TEN KILOMETRE POST	EACH	1,084.00	1,952.61	4,427.28	1,865.97	9,329.87
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	123.61	91.00	949.61	291.05	1,455.27

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

MARDAN
(44)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Mardan **District Code: 44**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.62	10.10	-	2.68	13.40
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.31	173.32	1.17	45.20	226.00
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	17.91	456.54	2.63	119.27	596.35
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	71.64	1,826.16	10.51	477.08	2,385.39
103	STRIPPING	CM	2.23	93.22	-	23.86	119.32
104	COMPACTION OF NATURAL GROUND	SM	0.32	9.91	0.76	2.75	13.74
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.11	135.76	-	34.97	174.83
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	112.43	316.30	50.82	119.89	599.44
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	15.27	337.99	-	88.32	441.58
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.01	262.40	-	68.10	340.51
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.36	120.27	-	30.91	154.54
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	112.43	316.30	50.82	119.89	599.44
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	17.88	316.03	-	83.48	417.39
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	7.74	263.92	-	67.91	339.57
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.62	137.60	0.38	36.15	180.75
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	56.23	287.11	70.80	103.54	517.69
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	99.35	427.01	33.88	140.06	700.30
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	83.79	292.53	-	94.08	470.40
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	51.09	238.86	-	72.49	362.45
107d	GRANULAR BACK FILL	CM	29.76	137.14	468.55	158.86	794.32
107e	COMMON BACK FILL	CM	21.49	62.84	5.09	22.35	111.77
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.13	174.71	5.09	46.48	232.42
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	17.81	482.48	54.04	138.58	692.92
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	13.36	416.71	2.42	108.12	540.61
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	11.88	369.34	-	95.30	476.52
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	6.96	177.46	7.94	48.09	240.45
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.53	76.32	5.09	21.74	108.68
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	12.71	110.29	3.03	31.51	157.53
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.24	27.34	1.46	7.51	37.54

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.90	18.21	0.77	4.97	24.86
110	IMPROVED SUB-GRADE	CM	8.84	120.02	54.78	45.91	229.54
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.76	15.26	0.79	4.20	21.01
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.12	15.57	0.90	4.40	21.98
201	GRANULAR SUB-BASE	CM	7.06	255.06	583.69	211.45	1,057.27
202	AGGREGATE BASE	CM	8.34	326.54	746.90	270.44	1,352.22
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	61.68	1,510.17	5,777.65	1,837.37	9,186.87
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	63.84	1,510.17	6,173.08	1,936.77	9,683.85
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	68.42	1,577.28	5,768.09	1,853.45	9,267.23
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	68.42	1,571.31	6,315.89	1,988.90	9,944.52
204b	CEMENT STABILIZED BASE	CM	25.30	569.10	981.15	393.89	1,969.44
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	213.30	915.38	50,523.06	12,912.93	64,564.67
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	213.30	915.38	48,944.93	12,518.40	62,592.01
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	80.01	112.80	877.89	267.67	1,338.36
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	127.52	2,437.94	5,490.02	2,013.87	10,069.36
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	87.86	126.27	706.61	230.19	1,150.94
207a	DEEP PATCHING (0-15 cm)	SM	1.55	45.04	1.26	11.96	59.81
207b	DEEP PATCHING (16-30 cm)	SM	1.55	39.67	1.26	10.62	53.11
208	REINSTATEMENT OF ROAD SURFACE	SM	1.66	57.10	0.56	14.83	74.15
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	1.94	110.61	0.68	28.31	141.54
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.39	22.12	0.14	5.66	28.31
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.26	1.57	35.86	9.42	47.12
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.25	1.57	40.03	10.46	52.32
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	15.01	3.92	19.61
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.10	0.58	17.51	4.55	22.74
304a	SINGLE SURFACE TREATMENT	SM	0.68	7.57	70.97	19.81	99.03
304b	DOUBLE SURFACE TREATMENT	SM	0.99	14.15	137.22	38.09	190.46
304c	TRIPLE SURFACE TREATMENT	SM	1.67	19.94	156.53	44.53	222.67
304d	SEAL COAT	SM	0.63	4.12	50.39	13.79	68.93

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	58.27	1,489.33	6,764.70	2,078.07	10,390.37
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	58.27	1,438.23	7,296.61	2,198.28	10,991.39
307a	DENSE GRADED HOT BIT-MAC	CM	142.97	379.77	5,576.28	1,524.76	7,623.78
307b	OPEN GRADED HOT BIT-MAC	CM	142.97	379.77	5,416.47	1,484.80	7,424.02
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	24.90	590.65	2,005.10	655.16	3,275.81
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	22.81	650.70	42,527.68	10,800.30	54,001.48
309a	COLD MILLING, 0 - 30 mm	SM	0.85	24.99	8.68	8.63	43.14
309b	COLD MILLING, 0 - 50 mm	SM	1.41	41.65	14.46	14.38	71.91
309c	COLD MILLING, 0 - 70 mm	SM	2.12	62.48	21.69	21.57	107.86
401a1i	CONCRETE CLASS "A1" (Underground)	CM	478.37	1,059.94	3,893.71	1,358.00	6,790.02
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	478.37	1,059.94	4,171.18	1,427.37	7,136.86
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	478.37	1,059.94	4,726.13	1,566.11	7,830.54
401a2i	CONCRETE CLASS "A2" (Underground)	CM	478.37	1,059.94	4,271.71	1,452.50	7,262.52
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	478.37	1,059.94	4,549.18	1,521.87	7,609.36
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	478.37	1,059.94	5,104.13	1,660.61	8,303.04
401a3i	CONCRETE CLASS "A3" (Underground)	CM	478.37	1,059.94	4,649.71	1,547.00	7,735.02
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	478.37	1,059.94	4,927.18	1,616.37	8,081.86
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	478.37	1,059.94	5,482.13	1,755.11	8,775.54
401b	CONCRETE CLASS "B"	CM	610.15	805.93	3,107.82	1,130.97	5,654.87
401ci	CONCRETE CLASS "C" (Underground)	CM	469.86	500.55	3,435.35	1,101.44	5,507.20
401cii	CONCRETE CLASS "C" (On ground)	CM	469.86	500.55	3,553.70	1,131.02	5,655.12
401ciii	CONCRETE CLASS "C" (Elevated)	CM	469.86	500.55	3,790.38	1,190.20	5,950.98
401d	CONCRETE CLASS "D1"	CM	746.86	1,265.57	5,236.77	1,812.30	9,061.50
401e	CONCRETE CLASS "Y"	CM	1,035.27	500.55	4,690.32	1,556.53	7,782.67
401f	LEAN CONCRETE	CM	388.73	507.52	2,379.66	818.98	4,094.88
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,580.65	947.15	4,890.66	1,854.62	9,273.08
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,580.65	947.15	5,646.66	2,043.62	10,218.08
401gii	PRECAST CONCRETE CLASS "B"	CM	1,580.65	947.15	4,629.05	1,789.21	8,946.07
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,580.65	947.15	6,024.66	2,138.12	10,690.58

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,580.65	947.15	6,402.66	2,232.62	11,163.08
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,580.65	947.15	6,780.66	2,327.12	11,635.58
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,458.73	781.47	59,888.00	15,532.05	77,660.25
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,458.73	781.47	67,238.00	17,369.55	86,847.75
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,173.23	5,393.81	55,999.50	15,641.63	78,208.17
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,507.06	15,659.05	133,859.15	38,006.31	190,031.56
405b	LAUNCHING OF GIRDER	TON	59.04	532.52	-	147.89	739.45
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	103.49	-	300.83	101.08	505.39
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	103.49	-	300.00	100.87	504.37
406c	STEEL EXPANSION JOINTS	KG	8.52	26.40	90.76	31.42	157.09
406d	WATER STOPS 6" SIZE	M	89.65	-	472.34	140.50	702.49
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	38.56	-	2,965.42	750.99	3,754.97
406g	STEEL OR METAL BEARING DEVICES	KG	17.71	69.68	119.24	51.66	258.30
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	323.80	1,654.04	806.65	696.12	3,480.62
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	485.70	2,481.06	1,209.98	1,044.19	5,220.93
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	485.70	2,481.06	903.50	967.57	4,837.83
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	809.51	4,135.11	1,078.79	1,505.85	7,529.25
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	693.86	4,884.94	1,256.91	1,708.93	8,544.65
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,214.26	6,909.78	1,377.98	2,375.50	11,877.52
407h	PILE LOAD TEST UP TO 120 TON	EACH	19,634.37	45,769.30	96,405.50	40,452.29	202,261.46
407i	PILE LOAD TEST UP TO 240 TON	EACH	36,326.85	45,769.30	192,811.00	68,726.79	343,633.94
407j	PILE LOAD TEST UP TO 360 TON	EACH	53,019.33	50,188.38	289,216.50	98,106.05	490,530.26
407k	CONFIRMATORY BORING (NX SIZE)	M	178.73	1,582.02	6.37	441.78	2,208.90
410	BRICK WORK	CM	306.85	282.72	2,906.48	874.01	4,370.07
411a	STONE MASONRY RANDOM DRY	CM	259.24	107.96	479.37	211.64	1,058.21
411b	STONE MASONRY RANDOM WITH MORTAR	CM	280.49	166.68	1,496.30	485.87	2,429.34
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	338.84	107.96	538.34	246.28	1,231.42
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	399.89	166.68	1,568.66	533.81	2,669.04

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	65.89	11.74	43.59	30.30	151.52
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	537.84	264.08	1,473.85	568.94	2,844.72
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	197.92	437.48	643.10	319.63	1,598.13
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	192.30	577.19	833.82	400.82	2,004.12
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	189.99	935.96	1,069.44	548.85	2,744.23
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	198.01	1,146.39	1,597.75	735.54	3,677.68
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	227.18	1,078.41	2,297.39	900.75	4,503.73
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	281.75	1,331.30	3,613.85	1,306.73	6,533.63
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	364.62	1,481.41	4,679.80	1,631.46	8,157.29
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	427.58	1,798.85	5,963.84	2,047.57	10,237.83
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	508.27	2,098.66	9,212.97	2,954.98	14,774.88
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	197.92	507.33	721.51	356.69	1,783.46
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	192.30	577.19	852.64	405.53	2,027.65
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	185.02	935.96	1,044.02	541.25	2,706.25
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	198.01	1,146.39	1,743.31	771.93	3,859.64
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	227.18	1,078.41	3,315.50	1,155.27	5,776.37
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	281.75	1,331.30	4,871.16	1,621.05	8,105.26
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	364.62	1,481.41	6,808.23	2,163.57	10,817.83
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	427.58	1,798.85	9,234.11	2,865.14	14,325.68
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	508.27	2,098.66	12,991.84	3,899.69	19,498.46
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	78.25	118.93	371.64	142.21	711.03
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	693.45	612.95	3,457.82	1,191.06	5,955.28
507a	STEEL WIRE MESH FOR GABIONS	KG	4.76	-	109.50	28.56	142.82
507b	ROCK FILL IN GABIONS	CM	83.12	-	388.21	117.83	589.16
508a	BRICK PAVING (SINGLE COURSE)	SM	99.86	32.70	230.48	90.76	453.80
508b	BRICK PAVING (DOUBLE COURSE)	SM	179.45	32.70	457.66	167.45	837.26
509a	RIP RAP CLASS "A"	CM	436.71	-	384.56	205.32	1,026.58
509b	RIP RAP CLASS "B"	CM	420.46	-	381.49	200.49	1,002.43
509c	RIP RAP CLASS "C"	CM	423.80	-	384.56	202.09	1,010.45

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	532.35	102.14	1,771.66	601.54	3,007.69
509e	GROUTED RIP RAP CLASS "B"	CM	513.98	81.72	1,624.51	555.05	2,775.25
509f	GROUTED RIP RAP CLASS "C"	CM	507.91	68.10	1,668.93	561.24	2,806.18
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	717.03	353.02	4,027.56	1,274.40	6,372.02
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	41.33	191.97	468.44	175.44	877.19
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	96.40	390.69	-	121.77	608.86
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	136.95	67.48	62.49	66.73	333.65
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	175.30	86.37	79.99	85.41	427.07
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	224.14	180.32	352.19	189.16	945.81
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	280.17	225.40	440.24	236.45	1,182.27
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	253.58	572.25	2,183.31	752.28	3,761.42
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	868.46	670.54	4,028.38	1,391.84	6,959.22
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	126.00	90.27	422.40	159.67	798.33
603	BRICK EDGING	M	7.90	-	36.48	11.10	55.48
604a	METAL GUARD RAIL	M	16.99	70.84	1,579.36	416.80	2,083.99
604b	METAL GUARD RAIL END PIECES	EACH	22.92	-	1,197.58	305.12	1,525.62
604d	STEEL POST OF METAL GUARD RAIL	EACH	78.80	976.73	3,776.31	1,207.96	6,039.79
605a	CONCRETE BEAM GUARD RAIL	M	65.70	30.82	588.84	171.34	856.71
605c	CONCRETE POST FOR GUARD RAIL	M	80.67	27.36	588.47	174.13	870.63
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	208.46	255.15	6,845.59	1,827.30	9,136.51
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	63.97	382.72	9,229.86	2,419.14	12,095.69
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	208.46	541.89	11,839.98	3,147.58	15,737.92
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	666.64	598.64	20,883.54	5,537.20	27,686.02
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	133.33	119.73	9,191.86	2,361.23	11,806.15
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	255.50	-	1,302.38	389.47	1,947.35
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	255.50	-	1,953.58	552.27	2,761.34
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.43	5.86	16.16	6.11	30.56
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.81	4.03	39.60	11.11	55.56
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.43	5.86	21.56	7.46	37.31

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.81	4.03	52.82	14.42	72.08
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	69.01	5.22	156.11	57.58	287.92
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	69.01	9.98	499.08	144.52	722.59
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.04	8.59	22.47	8.53	42.63
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.04	9.63	67.50	20.04	100.22
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.04	6.95	29.96	9.99	49.94
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.04	9.63	90.01	25.67	128.35
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	69.01	3.73	216.97	72.43	362.13
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	69.01	7.90	851.20	232.03	1,160.13
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	57.42	3.73	104.08	41.30	206.52
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	57.42	7.90	333.22	99.63	498.17
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	57.42	3.73	144.65	51.45	257.24
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	57.42	7.90	568.32	158.41	792.05
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.62	81.62	193.79	71.01	355.04
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.62	81.62	233.79	81.00	405.02
610b	RIGHT OF WAY MARKER	EACH	90.22	121.33	297.85	127.35	636.74
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	562.34	976.31	1,996.14	883.70	4,418.48
610d	TEN KILOMETRE POST	EACH	1,078.31	1,952.61	4,390.39	1,855.33	9,276.63
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	120.23	91.00	947.65	289.72	1,448.60

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

NOWSHERA
(49-C)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.65	10.10	-	2.69	13.44
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.64	173.32	1.17	45.28	226.41
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	18.79	456.54	2.63	119.49	597.45
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	75.17	1,826.16	10.51	477.96	2,389.80
103	STRIPPING	CM	2.38	93.22	-	23.90	119.49
104	COMPACTION OF NATURAL GROUND	SM	0.34	9.91	0.84	2.77	13.86
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.33	135.76	-	35.02	175.11
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	119.95	316.30	50.82	121.77	608.84
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	16.54	337.99	-	88.63	443.17
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.85	262.40	-	68.31	341.55
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.54	120.27	-	30.95	154.77
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	119.95	316.30	50.82	121.77	608.84
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	19.05	316.03	-	83.77	418.85
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.41	263.92	-	68.08	340.41
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.12	137.60	0.42	36.29	181.43
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	59.47	287.11	70.80	104.35	521.74
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	105.83	427.01	33.88	141.68	708.41
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	89.41	292.53	-	95.48	477.42
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	54.43	238.86	-	73.32	366.61
107d	GRANULAR BACK FILL	CM	31.12	137.14	348.60	129.21	646.07
107e	COMMON BACK FILL	CM	22.31	62.84	5.59	22.69	113.43
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.65	174.71	5.59	46.74	233.68
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	19.12	482.48	54.36	138.99	694.95
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	14.34	416.71	2.66	108.43	542.14
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	12.75	369.34	-	95.52	477.62
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.50	177.46	8.44	48.35	241.75
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.00	76.32	5.59	21.98	109.89
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	13.64	110.29	3.32	31.81	159.07
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.33	27.34	1.60	7.57	37.83

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.97	18.21	0.85	5.01	25.04
110	IMPROVED SUB-GRADE	CM	9.54	120.02	55.89	46.36	231.82
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.81	15.26	0.87	4.24	21.18
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.21	15.57	0.97	4.44	22.20
201	GRANULAR SUB-BASE	CM	7.61	255.06	522.71	196.34	981.72
202	AGGREGATE BASE	CM	9.00	326.54	709.15	261.17	1,305.87
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	65.29	1,510.17	5,834.90	1,852.59	9,262.95
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	67.61	1,510.17	6,343.50	1,980.32	9,901.59
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	72.53	1,577.28	5,825.39	1,868.80	9,344.00
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	72.53	1,571.31	6,484.94	2,032.19	10,160.96
204b	CEMENT STABILIZED BASE	CM	27.19	569.10	1,114.16	427.61	2,138.07
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	225.00	915.38	50,453.37	12,898.44	64,492.18
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	225.00	915.38	48,875.24	12,503.90	62,519.52
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	83.80	112.80	1,147.10	335.92	1,679.62
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	136.21	2,437.94	5,661.44	2,058.90	10,294.50
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	91.82	126.27	721.47	234.89	1,174.45
207a	DEEP PATCHING (0-15 cm)	SM	1.68	45.04	1.38	12.02	60.12
207b	DEEP PATCHING (16-30 cm)	SM	1.68	39.67	1.38	10.68	53.42
208	REINSTATEMENT OF ROAD SURFACE	SM	1.79	57.10	0.62	14.88	74.38
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.09	110.61	0.75	28.36	141.80
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.42	22.12	0.15	5.67	28.36
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.28	1.57	35.81	9.42	47.08
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.27	1.57	39.97	10.45	52.27
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	14.99	3.92	19.60
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	17.48	4.54	22.72
304a	SINGLE SURFACE TREATMENT	SM	0.72	7.57	71.08	19.84	99.22
304b	DOUBLE SURFACE TREATMENT	SM	1.06	14.15	138.12	38.33	191.66
304c	TRIPLE SURFACE TREATMENT	SM	1.79	19.94	157.44	44.79	223.96
304d	SEAL COAT	SM	0.67	4.12	50.42	13.80	69.01

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	61.96	1,489.33	6,872.70	2,106.00	10,529.99
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	61.96	1,438.23	7,411.62	2,227.95	11,139.76
307a	DENSE GRADED HOT BIT-MAC	CM	153.19	379.77	5,639.30	1,543.07	7,715.33
307b	OPEN GRADED HOT BIT-MAC	CM	153.19	379.77	5,486.07	1,504.76	7,523.79
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	27.23	590.65	2,012.90	657.70	3,288.48
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	23.68	650.70	42,455.92	10,782.58	53,912.88
309a	COLD MILLING, 0 - 30 mm	SM	0.91	24.99	8.68	8.64	43.22
309b	COLD MILLING, 0 - 50 mm	SM	1.51	41.65	14.47	14.41	72.04
309c	COLD MILLING, 0 - 70 mm	SM	2.26	62.48	21.70	21.61	108.06
401a1i	CONCRETE CLASS "A1" (Underground)	CM	510.16	1,059.94	4,023.50	1,398.40	6,991.99
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	510.16	1,059.94	4,300.97	1,467.77	7,338.83
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	510.16	1,059.94	4,855.91	1,606.50	8,032.51
401a2i	CONCRETE CLASS "A2" (Underground)	CM	510.16	1,059.94	4,401.50	1,492.90	7,464.49
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	510.16	1,059.94	4,678.97	1,562.27	7,811.33
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	510.16	1,059.94	5,233.91	1,701.00	8,505.01
401a3i	CONCRETE CLASS "A3" (Underground)	CM	510.16	1,059.94	4,779.50	1,587.40	7,936.99
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	510.16	1,059.94	5,056.97	1,656.77	8,283.83
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	510.16	1,059.94	5,611.91	1,795.50	8,977.51
401b	CONCRETE CLASS "B"	CM	648.47	805.93	3,373.09	1,206.87	6,034.35
401ci	CONCRETE CLASS "C" (Underground)	CM	497.42	500.55	3,632.12	1,157.52	5,787.61
401cii	CONCRETE CLASS "C" (On ground)	CM	497.42	500.55	3,750.46	1,187.11	5,935.54
401ciii	CONCRETE CLASS "C" (Elevated)	CM	497.42	500.55	3,987.14	1,246.28	6,231.39
401d	CONCRETE CLASS "D1"	CM	792.06	1,265.57	5,384.00	1,860.41	9,302.04
401e	CONCRETE CLASS "Y"	CM	1,083.81	500.55	4,796.59	1,595.24	7,976.18
401f	LEAN CONCRETE	CM	409.93	507.52	2,645.01	890.61	4,453.07
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,653.45	947.15	5,026.30	1,906.73	9,533.63
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,653.45	947.15	5,782.30	2,095.73	10,478.63
401gii	PRECAST CONCRETE CLASS "B"	CM	1,653.45	947.15	4,917.35	1,879.49	9,397.44
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,653.45	947.15	6,160.30	2,190.23	10,951.13

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,653.45	947.15	6,538.30	2,284.73	11,423.63
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,653.45	947.15	6,916.30	2,379.23	11,896.13
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,542.00	781.47	59,358.00	15,420.37	77,101.84
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,542.00	781.47	66,708.00	17,257.87	86,289.34
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,245.40	5,393.81	55,550.84	15,547.51	77,737.56
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,589.53	15,659.05	133,835.34	38,020.98	190,104.90
405b	LAUNCHING OF GIRDER	TON	60.69	532.52	-	148.30	741.52
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	109.40	-	299.97	102.34	511.71
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	109.40	-	299.21	102.15	510.76
406c	STEEL EXPANSION JOINTS	KG	8.91	26.40	90.20	31.38	156.89
406d	WATER STOPS 6" SIZE	M	97.26	-	472.16	142.36	711.78
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	39.32	-	2,960.87	750.05	3,750.24
406g	STEEL OR METAL BEARING DEVICES	KG	18.44	69.68	117.23	51.34	256.69
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	331.42	1,654.04	721.20	676.67	3,383.33
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	497.13	2,481.06	1,081.80	1,015.00	5,075.00
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	497.13	2,481.06	821.16	949.84	4,749.20
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	828.56	4,135.11	1,002.57	1,491.56	7,457.79
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	710.19	4,884.94	1,187.44	1,695.64	8,478.21
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,242.83	6,909.78	1,297.97	2,362.65	11,813.23
407h	PILE LOAD TEST UP TO 120 TON	EACH	20,456.69	45,769.30	94,337.50	40,140.87	200,704.37
407i	PILE LOAD TEST UP TO 240 TON	EACH	37,790.54	45,769.30	188,675.00	68,058.71	340,293.55
407j	PILE LOAD TEST UP TO 360 TON	EACH	55,124.39	50,188.38	283,012.50	97,081.32	485,406.59
407k	CONFIRMATORY BORING (NX SIZE)	M	183.77	1,582.02	6.99	443.20	2,215.98
410	BRICK WORK	CM	311.41	282.72	2,945.88	885.00	4,425.02
411a	STONE MASONRY RANDOM DRY	CM	268.29	107.96	354.71	182.74	913.69
411b	STONE MASONRY RANDOM WITH MORTAR	CM	289.35	166.68	1,418.88	468.73	2,343.64
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	348.93	107.96	400.18	214.27	1,071.34
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	410.32	166.68	1,467.00	511.00	2,554.99

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	66.40	11.74	44.43	30.64	153.22
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	550.54	264.08	1,372.19	546.70	2,733.52
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	205.55	437.48	645.26	322.07	1,610.36
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	199.71	577.19	836.33	403.31	2,016.53
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	198.90	935.96	1,072.37	551.81	2,759.04
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	207.09	1,146.39	1,601.34	738.70	3,693.52
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	237.82	1,078.41	2,300.98	904.30	4,521.52
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	294.72	1,331.30	3,619.02	1,311.26	6,556.30
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	381.40	1,481.41	4,685.47	1,637.07	8,185.34
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	448.08	1,798.85	5,970.71	2,054.41	10,272.06
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	530.47	2,098.66	9,221.00	2,962.53	14,812.65
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	205.55	507.33	725.14	359.50	1,797.52
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	199.71	577.19	855.15	408.01	2,040.05
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	192.99	935.96	1,046.95	543.98	2,719.88
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	207.09	1,146.39	1,745.98	774.86	3,874.32
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	237.82	1,078.41	3,319.59	1,158.95	5,794.77
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	294.72	1,331.30	4,876.33	1,625.59	8,127.94
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	381.40	1,481.41	6,813.90	2,169.18	10,845.88
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	448.08	1,798.85	9,240.99	2,871.98	14,359.91
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	530.47	2,098.66	12,999.86	3,907.25	19,536.23
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	81.95	118.93	343.94	136.20	681.02
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	741.53	612.95	3,723.09	1,269.39	6,346.95
507a	STEEL WIRE MESH FOR GABIONS	KG	4.88	-	109.41	28.57	142.86
507b	ROCK FILL IN GABIONS	CM	87.00	-	352.92	109.98	549.89
508a	BRICK PAVING (SINGLE COURSE)	SM	102.19	32.70	229.36	91.06	455.30
508b	BRICK PAVING (DOUBLE COURSE)	SM	182.83	32.70	455.62	167.79	838.93
509a	RIP RAP CLASS "A"	CM	444.69	-	259.90	176.15	880.73
509b	RIP RAP CLASS "B"	CM	427.97	-	257.82	171.45	857.24
509c	RIP RAP CLASS "C"	CM	430.87	-	259.90	172.69	863.46

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	542.23	102.14	1,676.62	580.25	2,901.25
509e	GROUTED RIP RAP CLASS "B"	CM	522.86	81.72	1,527.46	533.01	2,665.04
509f	GROUTED RIP RAP CLASS "C"	CM	516.36	68.10	1,572.02	539.12	2,695.59
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	753.12	353.02	4,223.93	1,332.52	6,662.60
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	43.69	191.97	348.97	146.16	730.79
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	98.37	390.69	-	122.26	611.32
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	140.98	67.48	42.23	62.67	313.36
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	180.46	86.37	54.06	80.22	401.11
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	229.56	180.32	340.30	187.55	937.73
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	286.96	225.40	425.37	234.43	1,172.16
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	270.40	572.25	2,250.96	773.40	3,867.02
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	908.20	670.54	4,087.99	1,416.68	7,083.41
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	131.78	90.27	439.39	165.36	826.80
603	BRICK EDGING	M	8.21	-	36.48	11.17	55.86
604a	METAL GUARD RAIL	M	17.51	70.84	1,579.36	416.93	2,084.63
604b	METAL GUARD RAIL END PIECES	EACH	23.26	-	1,197.58	305.21	1,526.04
604d	STEEL POST OF METAL GUARD RAIL	EACH	81.31	976.73	3,776.31	1,208.59	6,042.93
605a	CONCRETE BEAM GUARD RAIL	M	67.96	30.82	592.48	172.82	864.08
605c	CONCRETE POST FOR GUARD RAIL	M	83.44	27.36	593.14	175.99	879.93
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	216.80	255.15	6,861.40	1,833.34	9,166.68
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	68.98	382.72	9,264.49	2,429.05	12,145.24
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	216.80	541.89	11,901.10	3,164.94	15,824.72
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	690.91	598.64	20,975.29	5,566.21	27,831.05
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	138.18	119.73	9,208.96	2,366.72	11,833.59
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	260.73	-	1,302.22	390.74	1,953.69
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	260.73	-	1,953.34	553.52	2,767.58
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.63	5.86	16.16	6.16	30.81
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.88	4.03	39.59	11.12	55.62
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.63	5.86	21.56	7.51	37.56

District: Nowshera **District Code: 49-C**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.88	4.03	52.80	14.43	72.13
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.24	5.22	156.10	57.89	289.44
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.24	9.98	498.88	144.78	723.88
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.29	8.59	22.47	8.59	42.93
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.29	9.63	67.50	20.11	100.53
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.29	6.95	29.96	10.05	50.25
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.29	9.63	90.01	25.73	128.66
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	70.24	3.73	216.96	72.73	363.65
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	70.24	7.90	851.20	232.33	1,161.67
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	58.75	3.73	104.07	41.64	208.18
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	58.75	7.90	333.09	99.93	499.67
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	58.75	3.73	144.64	51.78	258.89
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	58.75	7.90	568.32	158.74	793.71
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.52	81.62	193.85	71.25	356.24
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.52	81.62	233.85	81.25	406.23
610b	RIGHT OF WAY MARKER	EACH	94.09	121.33	303.65	129.77	648.83
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	575.57	976.31	2,041.81	898.42	4,492.10
610d	TEN KILOMETRE POST	EACH	1,105.19	1,952.61	4,479.36	1,884.29	9,421.44
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	126.08	91.00	957.59	293.67	1,468.35

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

PESHAWAR
(52)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.73	10.10	-	2.71	13.54
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.25	173.32	1.17	45.43	227.17
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	20.90	456.54	2.63	120.02	600.08
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	83.60	1,826.16	10.51	480.07	2,400.33
103	STRIPPING	CM	2.54	93.22	-	23.94	119.70
104	COMPACTION OF NATURAL GROUND	SM	0.36	9.91	0.76	2.76	13.79
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.16	135.76	-	34.98	174.90
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	120.09	316.30	50.82	121.80	609.01
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	16.91	337.99	-	88.73	443.63
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.99	262.40	-	68.35	341.73
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.40	120.27	-	30.92	154.59
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	120.09	316.30	50.82	121.80	609.01
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	19.01	316.03	-	83.76	418.80
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	8.56	263.92	-	68.12	340.60
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.05	137.60	0.38	36.26	181.29
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	63.35	287.11	70.80	105.32	526.58
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	105.61	427.01	33.88	141.63	708.13
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	89.47	292.53	-	95.50	477.51
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	54.31	238.86	-	73.29	366.47
107d	GRANULAR BACK FILL	CM	33.11	137.14	333.46	125.93	629.64
107e	COMMON BACK FILL	CM	25.38	62.84	5.09	23.33	116.64
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.69	174.71	5.09	46.62	233.12
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	19.78	482.48	54.04	139.08	695.38
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	14.84	416.71	2.42	108.49	542.46
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	13.19	369.34	-	95.63	478.16
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.71	177.46	7.94	48.28	241.39
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.10	76.32	5.09	21.88	109.38
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	14.35	110.29	3.03	31.92	159.58
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.35	27.34	1.46	7.54	37.68

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.99	18.21	0.77	4.99	24.97
110	IMPROVED SUB-GRADE	CM	9.91	120.02	52.41	45.58	227.92
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.85	15.26	0.79	4.23	21.13
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.26	15.57	0.90	4.43	22.16
201	GRANULAR SUB-BASE	CM	7.76	255.06	532.84	198.92	994.59
202	AGGREGATE BASE	CM	8.94	326.54	708.80	261.07	1,305.35
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	71.94	1,510.17	6,008.75	1,897.71	9,488.57
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	74.08	1,510.17	6,426.94	2,002.80	10,013.99
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	79.29	1,577.28	5,998.73	1,913.83	9,569.13
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	79.29	1,571.31	6,573.83	2,056.11	10,280.54
204b	CEMENT STABILIZED BASE	CM	27.60	569.10	1,006.80	400.88	2,004.38
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	229.99	915.38	52,980.39	13,531.44	67,657.19
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	229.99	915.38	51,402.26	13,136.91	65,684.53
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	96.57	112.80	894.28	275.91	1,379.56
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	145.67	2,437.94	5,677.41	2,065.26	10,326.28
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	106.17	126.27	744.50	244.24	1,221.19
207a	DEEP PATCHING (0-15 cm)	SM	1.72	45.04	1.26	12.00	60.02
207b	DEEP PATCHING (16-30 cm)	SM	1.72	39.67	1.26	10.66	53.32
208	REINSTATEMENT OF ROAD SURFACE	SM	1.80	57.10	0.56	14.87	74.33
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.08	110.61	0.68	28.34	141.72
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.42	22.12	0.14	5.67	28.34
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.28	1.57	37.60	9.86	49.32
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.27	1.57	41.97	10.95	54.77
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	15.74	4.11	20.54
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	18.36	4.76	23.82
304a	SINGLE SURFACE TREATMENT	SM	0.73	7.57	74.72	20.76	103.78
304b	DOUBLE SURFACE TREATMENT	SM	1.06	14.15	144.56	39.94	199.72
304c	TRIPLE SURFACE TREATMENT	SM	1.79	19.94	164.93	46.66	233.32
304d	SEAL COAT	SM	0.66	4.12	52.89	14.42	72.10

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	66.97	1,489.33	7,054.66	2,152.74	10,763.69
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	66.97	1,438.23	7,617.63	2,280.71	11,403.54
307a	DENSE GRADED HOT BIT-MAC	CM	167.94	379.77	5,855.80	1,600.88	8,004.39
307b	OPEN GRADED HOT BIT-MAC	CM	167.94	379.77	5,681.91	1,557.41	7,787.03
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	29.52	590.65	2,066.62	671.70	3,358.48
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	25.16	650.70	45,058.00	11,433.46	57,167.32
309a	COLD MILLING, 0 - 30 mm	SM	0.92	24.99	8.68	8.65	43.24
309b	COLD MILLING, 0 - 50 mm	SM	1.54	41.65	14.46	14.41	72.07
309c	COLD MILLING, 0 - 70 mm	SM	2.31	62.48	21.69	21.62	108.10
401a1i	CONCRETE CLASS "A1" (Underground)	CM	555.13	1,059.94	3,950.88	1,391.49	6,957.44
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	555.13	1,059.94	4,228.35	1,460.86	7,304.28
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	555.13	1,059.94	4,783.30	1,599.59	7,997.96
401a2i	CONCRETE CLASS "A2" (Underground)	CM	555.13	1,059.94	4,328.88	1,485.99	7,429.94
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	555.13	1,059.94	4,606.35	1,555.36	7,776.78
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	555.13	1,059.94	5,161.30	1,694.09	8,470.46
401a3i	CONCRETE CLASS "A3" (Underground)	CM	555.13	1,059.94	4,706.88	1,580.49	7,902.44
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	555.13	1,059.94	4,984.35	1,649.86	8,249.28
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	555.13	1,059.94	5,539.30	1,788.59	8,942.96
401b	CONCRETE CLASS "B"	CM	701.79	805.93	3,166.06	1,168.45	5,842.23
401ci	CONCRETE CLASS "C" (Underground)	CM	554.77	500.55	3,495.49	1,137.70	5,688.51
401cii	CONCRETE CLASS "C" (On ground)	CM	554.77	500.55	3,613.83	1,167.29	5,836.44
401ciii	CONCRETE CLASS "C" (Elevated)	CM	554.77	500.55	3,850.52	1,226.46	6,132.29
401d	CONCRETE CLASS "D1"	CM	873.14	1,265.57	5,288.11	1,856.70	9,283.51
401e	CONCRETE CLASS "Y"	CM	1,210.97	500.55	4,743.96	1,613.87	8,069.34
401f	LEAN CONCRETE	CM	464.79	507.52	2,324.42	824.18	4,120.90
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,873.57	947.15	4,953.74	1,943.61	9,718.07
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,873.57	947.15	5,709.74	2,132.61	10,663.07
401gii	PRECAST CONCRETE CLASS "B"	CM	1,873.57	947.15	4,688.65	1,877.34	9,386.71
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,873.57	947.15	6,087.74	2,227.11	11,135.57

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,873.57	947.15	6,465.74	2,321.61	11,608.07
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,873.57	947.15	6,843.74	2,416.11	12,080.57
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,679.56	781.47	59,517.00	15,494.51	77,472.54
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,679.56	781.47	66,867.00	17,332.01	86,660.04
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,347.37	5,393.81	55,564.70	15,576.47	77,882.36
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,533.18	15,659.05	133,834.60	38,006.71	190,033.53
405b	LAUNCHING OF GIRDER	TON	59.88	532.52	-	148.10	740.50
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	120.32	-	303.49	105.95	529.77
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	120.32	-	302.69	105.75	528.76
406c	STEEL EXPANSION JOINTS	KG	9.80	26.40	90.19	31.60	157.98
406d	WATER STOPS 6" SIZE	M	108.40	-	472.37	145.19	725.97
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.54	2.68
406f	ASPHALT FELT (3 PLY)	SM	44.19	-	3,025.05	767.31	3,836.55
406g	STEEL OR METAL BEARING DEVICES	KG	19.65	69.68	117.21	51.64	258.18
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	332.38	1,654.04	689.73	669.04	3,345.20
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	498.58	2,481.06	1,034.60	1,003.56	5,017.80
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	498.58	2,481.06	773.98	938.41	4,692.03
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	830.96	4,135.11	923.94	1,472.50	7,362.51
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	712.25	4,884.94	1,056.02	1,663.30	8,316.51
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,246.44	6,909.78	1,180.02	2,334.06	11,670.30
407h	PILE LOAD TEST UP TO 120 TON	EACH	23,557.91	45,769.30	90,203.26	39,882.62	199,413.09
407i	PILE LOAD TEST UP TO 240 TON	EACH	44,237.21	45,769.30	180,406.51	67,603.26	338,016.29
407j	PILE LOAD TEST UP TO 360 TON	EACH	64,916.51	50,188.38	270,609.77	96,428.67	482,143.33
407k	CONFIRMATORY BORING (NX SIZE)	M	197.07	1,582.02	6.36	446.36	2,231.82
410	BRICK WORK	CM	364.29	282.72	3,085.20	933.05	4,665.26
411a	STONE MASONRY RANDOM DRY	CM	308.88	107.96	407.06	205.97	1,029.87
411b	STONE MASONRY RANDOM WITH MORTAR	CM	333.77	166.68	1,459.88	490.08	2,450.42
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	404.62	107.96	456.73	242.33	1,211.63
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	477.38	166.68	1,513.97	539.51	2,697.54

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	78.47	11.74	44.19	33.60	168.01
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	643.96	264.08	1,419.17	581.80	2,909.01
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	236.91	437.48	644.22	329.65	1,648.27
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	231.33	577.19	835.16	410.92	2,054.60
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	224.30	935.96	1,071.01	557.82	2,789.08
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	235.24	1,146.39	1,599.58	745.30	3,726.51
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	268.33	1,078.41	2,299.22	911.49	4,557.46
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	330.28	1,331.30	3,616.50	1,319.52	6,597.60
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	427.42	1,481.41	4,682.44	1,647.82	8,239.09
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	501.24	1,798.85	5,967.04	2,066.78	10,333.92
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	594.03	2,098.66	9,216.71	2,977.35	14,886.76
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	236.91	507.33	723.76	367.00	1,835.00
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	231.33	577.19	853.98	415.63	2,078.13
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	217.41	935.96	1,045.59	549.74	2,748.69
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	235.24	1,146.39	1,744.74	781.59	3,907.96
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	268.33	1,078.41	3,317.53	1,166.07	5,830.35
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	330.28	1,331.30	4,873.81	1,633.85	8,169.24
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	427.42	1,481.41	6,810.87	2,179.93	10,899.63
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	501.24	1,798.85	9,237.32	2,884.35	14,421.76
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	594.03	2,098.66	12,995.57	3,922.07	19,610.33
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	91.45	118.93	287.07	124.36	621.81
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	807.16	612.95	3,516.06	1,234.04	6,170.21
507a	STEEL WIRE MESH FOR GABIONS	KG	5.27	-	110.25	28.88	144.40
507b	ROCK FILL IN GABIONS	CM	99.33	-	388.21	121.88	609.42
508a	BRICK PAVING (SINGLE COURSE)	SM	119.09	32.70	243.91	98.93	494.63
508b	BRICK PAVING (DOUBLE COURSE)	SM	214.83	32.70	485.21	183.19	915.93
509a	RIP RAP CLASS "A"	CM	519.51	-	312.25	207.94	1,039.71
509b	RIP RAP CLASS "B"	CM	501.39	-	309.75	202.79	1,013.93
509c	RIP RAP CLASS "C"	CM	505.90	-	312.25	204.54	1,022.69

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	633.45	102.14	1,721.73	614.33	3,071.66
509e	GROUTED RIP RAP CLASS "B"	CM	612.45	81.72	1,572.83	566.75	2,833.75
509f	GROUTED RIP RAP CLASS "C"	CM	606.12	68.10	1,617.51	572.93	2,864.66
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	865.81	353.02	4,082.58	1,325.35	6,626.77
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	49.42	191.97	333.54	143.73	718.66
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	106.57	390.69	-	124.32	621.58
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	162.73	67.48	50.74	70.24	351.19
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	208.30	86.37	64.95	89.90	449.52
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	266.51	180.32	349.62	199.11	995.56
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	333.13	225.40	437.03	248.89	1,244.45
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	294.22	572.25	2,213.17	769.91	3,849.54
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,028.38	670.54	4,053.46	1,438.10	7,190.48
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	149.20	90.27	425.90	166.34	831.71
603	BRICK EDGING	M	9.38	-	39.36	12.19	60.93
604a	METAL GUARD RAIL	M	17.89	70.84	1,579.41	417.04	2,085.19
604b	METAL GUARD RAIL END PIECES	EACH	24.73	-	1,197.61	305.59	1,527.93
604d	STEEL POST OF METAL GUARD RAIL	EACH	82.12	976.73	3,776.44	1,208.82	6,044.11
605a	CONCRETE BEAM GUARD RAIL	M	78.78	30.82	589.38	174.75	873.73
605c	CONCRETE POST FOR GUARD RAIL	M	96.73	27.36	589.34	178.36	891.79
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	241.22	255.15	6,843.57	1,834.99	9,174.93
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	79.52	382.72	9,234.28	2,424.13	12,120.66
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	241.22	541.89	11,847.68	3,157.70	15,788.49
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	794.57	598.64	20,892.36	5,571.39	27,856.97
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	158.91	119.73	9,189.01	2,366.91	11,834.56
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	274.28	-	1,301.21	393.87	1,969.37
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	274.28	-	1,951.82	556.52	2,782.62
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.89	5.86	16.16	6.23	31.13
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.96	4.03	39.61	11.15	55.75
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.89	5.86	21.56	7.58	37.88

District: Peshawar **District Code: 52**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.96	4.03	52.83	14.46	72.28
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	77.67	5.22	156.12	59.75	298.75
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	77.67	9.98	499.17	146.70	733.52
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.61	8.59	22.47	8.67	43.34
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.61	9.63	67.51	20.19	100.93
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.61	6.95	29.96	10.13	50.65
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.61	9.63	90.01	25.81	129.06
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	77.67	3.73	216.98	74.59	372.96
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	77.67	7.90	851.21	234.19	1,170.97
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	65.03	3.73	104.08	43.21	216.04
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	65.03	7.90	333.28	101.55	507.76
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	65.03	3.73	144.65	53.35	266.76
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	65.03	7.90	568.33	160.31	801.57
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	10.74	81.62	193.83	71.55	357.74
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	10.74	81.62	233.83	81.55	407.73
610b	RIGHT OF WAY MARKER	EACH	109.35	121.33	299.80	132.62	663.10
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	659.88	976.31	2,011.42	911.90	4,559.51
610d	TEN KILOMETRE POST	EACH	1,262.32	1,952.61	4,419.25	1,908.55	9,542.74
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	139.93	91.00	950.34	295.32	1,476.60

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

SWAT SAIDU SHARIF
(66)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.72	11.11	-	2.96	14.79
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	7.49	190.65	1.28	49.86	249.28
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	21.09	502.19	2.89	131.54	657.72
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	84.36	2,008.78	11.56	526.17	2,630.87
103	STRIPPING	CM	2.73	102.54	-	26.32	131.58
104	COMPACTION OF NATURAL GROUND	SM	0.39	10.90	0.84	3.03	15.16
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	5.04	149.33	-	38.59	192.97
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	136.07	347.93	55.90	134.98	674.88
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.55	371.79	-	97.59	487.93
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	12.21	288.63	-	75.21	376.06
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	4.13	132.30	-	34.11	170.53
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	136.07	347.93	55.90	134.98	674.88
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	21.60	347.63	-	92.31	461.54
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.45	290.32	-	74.94	374.70
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	8.27	151.36	0.42	40.01	200.06
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	67.13	315.83	77.89	115.21	576.05
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	119.99	469.72	37.27	156.74	783.72
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	101.07	321.79	-	105.71	528.57
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	61.71	262.75	-	81.11	405.57
107d	GRANULAR BACK FILL	CM	35.12	150.85	360.80	136.70	683.48
107e	COMMON BACK FILL	CM	24.98	69.12	5.60	24.93	124.63
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.54	192.18	5.60	51.33	256.65
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.63	530.73	59.45	152.95	764.75
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.22	458.38	2.66	119.32	596.58
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.42	406.28	-	105.17	525.87
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.48	195.20	8.73	53.11	265.53
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.82	83.95	5.60	24.09	120.46
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.45	121.32	3.33	35.02	175.12
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.51	30.07	1.60	8.30	41.48

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.12	20.03	0.85	5.50	27.50
110	IMPROVED SUB-GRADE	CM	10.78	132.02	76.68	54.87	274.35
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.93	16.79	0.87	4.65	23.23
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.38	17.13	0.99	4.87	24.37
201	GRANULAR SUB-BASE	CM	8.36	272.91	599.30	220.14	1,100.72
202	AGGREGATE BASE	CM	9.82	349.40	758.41	279.41	1,397.04
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	70.60	1,615.88	6,556.04	2,060.63	10,303.14
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	73.12	1,615.88	7,027.42	2,179.10	10,895.52
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	78.62	1,687.69	6,544.95	2,077.82	10,389.08
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	78.62	1,681.30	7,187.48	2,236.85	11,184.24
204b	CEMENT STABILIZED BASE	CM	29.62	608.94	1,051.97	422.63	2,113.17
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	251.48	979.45	58,400.85	14,907.95	74,539.73
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	251.48	979.45	56,712.25	14,485.80	72,428.98
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	90.56	120.69	960.73	293.00	1,464.99
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	148.13	2,608.60	6,188.36	2,236.27	11,181.36
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	98.84	135.11	797.29	257.81	1,289.06
207a	DEEP PATCHING (0-15 cm)	SM	1.87	48.19	1.34	12.85	64.25
207b	DEEP PATCHING (16-30 cm)	SM	1.87	42.45	1.34	11.42	57.08
208	REINSTATEMENT OF ROAD SURFACE	SM	1.96	61.10	0.60	15.91	79.57
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.39	118.35	0.73	30.37	151.84
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.48	23.67	0.15	6.07	30.37
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.68	41.45	10.86	54.30
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.68	46.27	12.06	60.31
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	17.35	4.52	22.61
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.62	20.24	5.25	26.23
304a	SINGLE SURFACE TREATMENT	SM	0.80	8.10	82.48	22.84	114.22
304b	DOUBLE SURFACE TREATMENT	SM	1.16	15.14	159.63	43.99	219.93
304c	TRIPLE SURFACE TREATMENT	SM	1.97	21.33	182.11	51.36	256.78
304d	SEAL COAT	SM	0.73	4.41	58.20	15.84	79.18

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	67.12	1,593.58	7,718.04	2,344.68	11,723.42
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	67.12	1,538.91	8,338.29	2,486.08	12,430.40
307a	DENSE GRADED HOT BIT-MAC	CM	164.78	406.36	6,424.00	1,748.78	8,743.92
307b	OPEN GRADED HOT BIT-MAC	CM	164.78	406.36	6,239.88	1,702.75	8,513.77
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	29.37	631.99	2,252.70	728.52	3,642.58
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	26.41	696.25	49,974.74	12,674.35	63,371.74
309a	COLD MILLING, 0 - 30 mm	SM	0.99	26.74	9.28	9.25	46.27
309b	COLD MILLING, 0 - 50 mm	SM	1.66	44.57	15.47	15.42	77.12
309c	COLD MILLING, 0 - 70 mm	SM	2.49	66.86	23.21	23.14	115.68
401a1i	CONCRETE CLASS "A1" (Underground)	CM	539.58	1,112.93	4,127.95	1,445.12	7,225.58
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	539.58	1,112.93	4,419.29	1,517.95	7,589.76
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	539.58	1,112.93	5,001.99	1,663.62	8,318.12
401a2i	CONCRETE CLASS "A2" (Underground)	CM	539.58	1,112.93	4,524.85	1,544.34	7,721.70
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	539.58	1,112.93	4,816.19	1,617.18	8,085.88
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	539.58	1,112.93	5,398.89	1,762.85	8,814.25
401a3i	CONCRETE CLASS "A3" (Underground)	CM	539.58	1,112.93	4,921.75	1,643.57	8,217.83
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	539.58	1,112.93	5,213.09	1,716.40	8,582.01
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	539.58	1,112.93	5,795.79	1,862.07	9,310.37
401b	CONCRETE CLASS "B"	CM	691.62	846.23	3,319.03	1,214.22	6,071.09
401ci	CONCRETE CLASS "C" (Underground)	CM	526.36	525.57	3,657.00	1,177.23	5,886.16
401cii	CONCRETE CLASS "C" (On ground)	CM	526.36	525.57	3,781.25	1,208.30	6,041.48
401ciii	CONCRETE CLASS "C" (Elevated)	CM	526.36	525.57	4,029.77	1,270.43	6,352.13
401d	CONCRETE CLASS "D1"	CM	835.44	1,328.84	5,536.75	1,925.26	9,626.30
401e	CONCRETE CLASS "Y"	CM	1,143.33	525.57	4,954.55	1,655.86	8,279.32
401f	LEAN CONCRETE	CM	435.55	532.89	2,552.76	880.30	4,401.50
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,744.25	994.51	5,177.22	1,978.99	9,894.97
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,744.25	994.51	5,971.02	2,177.44	10,887.22
401gii	PRECAST CONCRETE CLASS "B"	CM	1,744.25	994.51	4,920.45	1,914.80	9,574.01
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,744.25	994.51	6,367.92	2,276.67	11,383.35

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,744.25	994.51	6,764.82	2,375.89	11,879.47
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,744.25	994.51	7,161.72	2,475.12	12,375.60
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,636.04	820.55	63,884.10	16,585.17	82,925.86
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,636.04	820.55	71,601.60	18,514.55	92,572.74
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,311.76	5,663.50	59,328.59	16,575.96	82,879.82
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,740.86	16,442.00	140,581.54	39,941.10	199,705.50
405b	LAUNCHING OF GIRDER	TON	64.18	559.15	-	155.83	779.17
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	115.17	-	323.26	109.61	548.04
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	115.17	-	322.19	109.34	546.70
406c	STEEL EXPANSION JOINTS	KG	9.38	27.72	95.96	33.26	166.32
406d	WATER STOPS 6" SIZE	M	103.07	-	496.64	149.93	749.64
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.23	0.56	2.80
406f	ASPHALT FELT (3 PLY)	SM	41.43	-	3,212.12	813.39	4,066.93
406g	STEEL OR METAL BEARING DEVICES	KG	19.47	73.17	124.08	54.18	270.90
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	352.67	1,736.74	957.83	761.81	3,809.07
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	529.01	2,605.12	1,436.75	1,142.72	5,713.60
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	529.01	2,605.12	1,067.14	1,050.32	5,251.58
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	881.68	4,341.86	1,266.13	1,622.42	8,112.09
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	755.73	5,129.19	1,478.20	1,840.78	9,203.89
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,322.52	7,255.27	1,610.94	2,547.18	12,735.92
407h	PILE LOAD TEST UP TO 120 TON	EACH	21,597.58	48,057.77	96,884.82	41,635.04	208,175.22
407i	PILE LOAD TEST UP TO 240 TON	EACH	39,798.12	48,057.77	193,769.65	70,406.38	352,031.92
407j	PILE LOAD TEST UP TO 360 TON	EACH	57,998.66	52,697.80	290,654.47	100,337.73	501,688.67
407k	CONFIRMATORY BORING (NX SIZE)	M	193.65	1,661.12	6.68	465.36	2,326.82
410	BRICK WORK	CM	328.90	296.86	3,338.00	990.94	4,954.70
411a	STONE MASONRY RANDOM DRY	CM	285.65	113.36	469.03	217.01	1,085.05
411b	STONE MASONRY RANDOM WITH MORTAR	CM	307.77	175.02	1,566.42	512.30	2,561.50
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	370.33	113.36	524.50	252.05	1,260.23
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	434.78	175.02	1,628.55	559.59	2,797.93

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	69.82	12.33	46.26	32.10	160.52
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	582.02	277.29	1,529.00	597.08	2,985.39
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	224.95	472.48	695.50	348.23	1,741.16
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	218.15	623.36	901.66	435.79	2,178.97
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	218.10	1,010.84	1,156.33	596.32	2,981.58
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	226.64	1,238.10	1,727.12	797.97	3,989.83
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	260.05	1,164.69	2,482.73	976.87	4,884.34
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	321.85	1,437.80	3,905.21	1,416.22	7,081.08
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	416.51	1,599.92	5,056.43	1,768.22	8,841.08
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	489.52	1,942.76	6,443.67	2,218.99	11,094.93
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	579.42	2,266.55	9,953.19	3,199.79	15,998.95
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	224.95	547.92	781.13	388.50	1,942.50
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	218.15	623.36	921.99	440.88	2,204.38
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	211.72	1,010.84	1,128.87	587.86	2,939.29
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	226.64	1,238.10	1,883.99	837.18	4,185.91
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	260.05	1,164.69	3,582.47	1,251.80	6,259.00
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	321.85	1,437.80	5,263.10	1,755.69	8,778.44
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	416.51	1,599.92	7,355.13	2,342.89	11,714.46
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	489.52	1,942.76	9,975.56	3,101.96	15,509.80
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	579.42	2,266.55	14,034.36	4,220.08	21,100.41
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	90.79	128.44	340.49	139.93	699.66
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	811.63	661.98	3,791.86	1,316.37	6,581.84
507a	STEEL WIRE MESH FOR GABIONS	KG	5.37	-	120.04	31.35	156.75
507b	ROCK FILL IN GABIONS	CM	95.60	-	457.38	138.25	691.23
508a	BRICK PAVING (SINGLE COURSE)	SM	111.01	35.32	276.89	105.80	529.02
508b	BRICK PAVING (DOUBLE COURSE)	SM	198.11	35.32	550.72	196.04	980.18
509a	RIP RAP CLASS "A"	CM	482.85	-	380.04	215.72	1,078.61
509b	RIP RAP CLASS "B"	CM	464.28	-	377.00	210.32	1,051.60
509c	RIP RAP CLASS "C"	CM	467.06	-	380.04	211.77	1,058.87

District: Swat Saidu Sharif

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	588.32	110.32	1,897.14	648.94	3,244.72
509e	GROUTED RIP RAP CLASS "B"	CM	566.85	88.25	1,736.52	597.90	2,989.52
509f	GROUTED RIP RAP CLASS "C"	CM	559.47	73.54	1,784.92	604.48	3,022.42
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	817.55	381.27	4,403.91	1,400.68	7,003.41
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	47.88	207.33	354.56	152.44	762.21
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	108.17	421.95	-	132.53	662.65
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	154.14	72.87	61.76	72.19	360.96
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	197.29	93.28	79.05	92.40	462.02
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	250.33	194.75	387.83	208.23	1,041.14
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	312.91	243.44	484.79	260.28	1,301.42
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	291.78	613.92	2,359.65	816.34	4,081.68
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	976.66	711.97	4,353.63	1,510.56	7,552.81
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	141.70	97.09	456.08	173.72	868.59
603	BRICK EDGING	M	8.52	-	42.11	12.66	63.28
604a	METAL GUARD RAIL	M	18.23	72.26	1,610.95	425.36	2,126.79
604b	METAL GUARD RAIL END PIECES	EACH	24.18	-	1,221.53	311.43	1,557.14
604d	STEEL POST OF METAL GUARD RAIL	EACH	85.49	996.27	3,851.83	1,233.40	6,166.98
605a	CONCRETE BEAM GUARD RAIL	M	69.70	31.44	606.30	176.86	884.30
605c	CONCRETE POST FOR GUARD RAIL	M	85.58	27.91	606.63	180.03	900.14
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	222.52	260.25	6,990.06	1,868.21	9,341.04
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	71.37	390.38	9,430.74	2,473.12	12,365.60
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	222.52	552.72	12,104.56	3,219.95	16,099.76
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	706.81	610.62	21,346.53	5,665.99	28,329.95
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	141.36	122.12	9,390.54	2,413.51	12,067.53
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	275.09	-	1,329.94	401.26	2,006.29
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	275.09	-	1,994.91	567.50	2,837.51
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.78	5.98	16.49	6.31	31.56
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.93	4.11	40.51	11.39	56.93
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.78	5.98	22.00	7.69	38.45

District: Swat Saidu Sharif **District Code: 66**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.93	4.11	54.03	14.77	73.83
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.11	5.32	159.35	59.19	295.97
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.11	10.18	510.48	148.19	740.97
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.47	8.76	22.93	8.79	43.96
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.47	9.82	68.85	20.54	102.69
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.47	7.09	30.58	10.29	51.43
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.47	9.82	91.81	26.28	131.38
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	72.11	3.80	221.42	74.33	371.66
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	72.11	8.06	868.22	237.10	1,185.48
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	60.39	3.80	106.23	42.60	213.02
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	60.39	8.06	340.84	102.32	511.60
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	60.39	3.80	147.61	52.95	264.75
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	60.39	8.06	579.69	162.03	810.17
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.97	83.25	197.70	72.73	363.64
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.97	83.25	238.50	82.93	414.64
610b	RIGHT OF WAY MARKER	EACH	96.67	123.75	306.28	131.68	658.38
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	591.75	995.83	2,060.78	912.09	4,560.44
610d	TEN KILOMETRE POST	EACH	1,136.62	1,991.66	4,526.27	1,913.64	9,568.19
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	133.38	95.67	984.00	303.26	1,516.32

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

SWABI
(66-A)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.69	10.10	-	2.70	13.49
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	6.83	173.32	1.17	45.33	226.65
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	19.75	456.54	2.63	119.73	598.65
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	79.01	1,826.16	10.51	478.92	2,394.60
103	STRIPPING	CM	2.36	93.22	-	23.89	119.47
104	COMPACTION OF NATURAL GROUND	SM	0.34	9.91	0.76	2.75	13.76
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.05	135.76	-	34.95	174.76
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	115.80	316.30	50.82	120.73	603.65
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	15.83	337.99	-	88.46	442.28
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	10.38	262.40	-	68.19	340.96
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.31	120.27	-	30.90	154.48
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	115.80	316.30	50.82	120.73	603.65
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	18.42	316.03	-	83.61	418.07
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	7.97	263.92	-	67.97	339.86
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.56	137.60	0.38	36.13	180.67
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	59.39	287.11	70.80	104.33	521.64
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	102.35	427.01	33.88	140.81	704.06
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	86.54	292.53	-	94.77	473.84
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	52.64	238.86	-	72.88	364.38
107d	GRANULAR BACK FILL	CM	32.30	137.14	348.31	129.44	647.19
107e	COMMON BACK FILL	CM	24.41	62.84	5.09	23.08	115.42
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	6.24	174.71	5.09	46.51	232.54
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	18.59	482.48	54.04	138.78	693.89
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	13.94	416.71	2.42	108.27	541.34
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	12.39	369.34	-	95.43	477.17
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	7.21	177.46	7.94	48.15	240.76
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	5.64	76.32	5.09	21.76	108.81
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	13.35	110.29	3.03	31.67	158.33
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.27	27.34	1.46	7.52	37.58

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	0.92	18.21	0.77	4.98	24.88
110	IMPROVED SUB-GRADE	CM	9.08	120.02	57.78	46.72	233.59
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.79	15.26	0.79	4.21	21.05
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.14	15.57	0.90	4.40	22.01
201	GRANULAR SUB-BASE	CM	7.29	255.06	527.63	197.49	987.47
202	AGGREGATE BASE	CM	8.35	326.54	765.72	275.15	1,375.77
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	67.93	1,510.17	5,778.04	1,839.04	9,195.18
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	70.07	1,510.17	6,174.12	1,938.59	9,692.94
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	75.10	1,577.28	5,768.48	1,855.22	9,276.08
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	75.10	1,571.31	6,316.97	1,990.85	9,954.23
204b	CEMENT STABILIZED BASE	CM	25.85	569.10	979.23	393.55	1,967.73
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	226.34	915.38	50,544.27	12,921.50	64,607.49
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	226.34	915.38	48,966.14	12,526.97	62,634.83
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	91.45	112.80	877.87	270.53	1,352.66
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	136.49	2,437.94	5,491.01	2,016.36	10,081.81
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	101.09	126.27	749.01	244.09	1,220.46
207a	DEEP PATCHING (0-15 cm)	SM	1.59	45.04	1.26	11.97	59.85
207b	DEEP PATCHING (16-30 cm)	SM	1.59	39.67	1.26	10.63	53.15
208	REINSTATEMENT OF ROAD SURFACE	SM	1.66	57.10	0.56	14.83	74.16
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	1.95	110.61	0.68	28.31	141.55
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.39	22.12	0.14	5.66	28.31
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.27	1.57	35.87	9.43	47.15
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.26	1.57	40.04	10.47	52.35
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	15.01	3.93	19.63
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.11	0.58	17.52	4.55	22.75
304a	SINGLE SURFACE TREATMENT	SM	0.70	7.57	71.00	19.82	99.09
304b	DOUBLE SURFACE TREATMENT	SM	1.02	14.15	137.28	38.11	190.57
304c	TRIPLE SURFACE TREATMENT	SM	1.72	19.94	156.59	44.56	222.81
304d	SEAL COAT	SM	0.65	4.12	50.41	13.80	68.98

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	63.13	1,489.33	6,765.75	2,079.55	10,397.76
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	63.13	1,438.23	7,297.74	2,199.78	10,998.88
307a	DENSE GRADED HOT BIT-MAC	CM	153.74	379.77	5,576.99	1,527.63	7,638.13
307b	OPEN GRADED HOT BIT-MAC	CM	153.74	379.77	5,417.72	1,487.81	7,439.03
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	25.54	590.65	2,005.61	655.45	3,277.24
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	24.55	650.70	42,549.52	10,806.19	54,030.96
309a	COLD MILLING, 0 - 30 mm	SM	0.86	24.99	8.68	8.63	43.17
309b	COLD MILLING, 0 - 50 mm	SM	1.44	41.65	14.46	14.39	71.94
309c	COLD MILLING, 0 - 70 mm	SM	2.16	62.48	21.69	21.58	107.91
401a1i	CONCRETE CLASS "A1" (Underground)	CM	489.47	1,059.94	3,906.42	1,363.96	6,819.78
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	489.47	1,059.94	4,183.89	1,433.33	7,166.63
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	489.47	1,059.94	4,738.84	1,572.06	7,860.31
401a2i	CONCRETE CLASS "A2" (Underground)	CM	489.47	1,059.94	4,284.42	1,458.46	7,292.28
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	489.47	1,059.94	4,561.89	1,527.83	7,639.13
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	489.47	1,059.94	5,116.84	1,666.56	8,332.81
401a3i	CONCRETE CLASS "A3" (Underground)	CM	489.47	1,059.94	4,662.42	1,552.96	7,764.78
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	489.47	1,059.94	4,939.89	1,622.33	8,111.63
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	489.47	1,059.94	5,494.84	1,761.06	8,805.31
401b	CONCRETE CLASS "B"	CM	635.43	805.93	3,121.10	1,140.62	5,703.08
401ci	CONCRETE CLASS "C" (Underground)	CM	490.97	500.55	3,447.73	1,109.81	5,549.07
401cii	CONCRETE CLASS "C" (On ground)	CM	490.97	500.55	3,566.07	1,139.40	5,696.99
401ciii	CONCRETE CLASS "C" (Elevated)	CM	490.97	500.55	3,802.76	1,198.57	5,992.85
401d	CONCRETE CLASS "D1"	CM	767.27	1,265.57	5,248.73	1,820.39	9,101.96
401e	CONCRETE CLASS "Y"	CM	1,091.04	500.55	4,700.16	1,572.94	7,864.68
401f	LEAN CONCRETE	CM	422.79	507.52	2,391.41	830.43	4,152.15
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,696.86	947.15	4,904.66	1,887.17	9,435.84
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,696.86	947.15	5,660.66	2,076.17	10,380.84
401gii	PRECAST CONCRETE CLASS "B"	CM	1,696.86	947.15	4,644.46	1,822.12	9,110.59
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,696.86	947.15	6,038.66	2,170.67	10,853.34

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,696.86	947.15	6,416.66	2,265.17	11,325.84
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,696.86	947.15	6,794.66	2,359.67	11,798.34
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,485.94	781.47	59,888.00	15,538.85	77,694.27
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,485.94	781.47	67,238.00	17,376.35	86,881.77
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,194.94	5,393.81	56,028.38	15,654.28	78,271.42
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,485.02	15,659.05	133,861.53	38,001.40	190,007.00
405b	LAUNCHING OF GIRDER	TON	58.52	532.52	-	147.76	738.80
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.69	-	301.89	102.65	513.23
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	108.69	-	300.97	102.41	512.07
406c	STEEL EXPANSION JOINTS	KG	9.01	26.40	90.90	31.58	157.89
406d	WATER STOPS 6" SIZE	M	88.89	-	472.62	140.38	701.88
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	42.16	-	2,960.92	750.77	3,753.85
406g	STEEL OR METAL BEARING DEVICES	KG	19.35	69.68	117.72	51.69	258.45
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	320.97	1,654.04	815.01	697.51	3,487.53
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	481.45	2,481.06	1,222.52	1,046.26	5,231.30
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	481.45	2,481.06	916.20	969.68	4,848.39
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	802.42	4,135.11	1,099.96	1,509.37	7,546.86
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	687.79	4,884.94	1,292.09	1,716.21	8,581.03
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,203.63	6,909.78	1,409.73	2,380.79	11,903.93
407h	PILE LOAD TEST UP TO 120 TON	EACH	22,611.50	45,769.30	92,271.26	40,163.02	200,815.08
407i	PILE LOAD TEST UP TO 240 TON	EACH	42,307.39	45,769.30	184,542.52	68,154.80	340,774.01
407j	PILE LOAD TEST UP TO 360 TON	EACH	62,003.27	50,188.38	276,813.78	97,251.36	486,256.80
407k	CONFIRMATORY BORING (NX SIZE)	M	190.29	1,582.02	6.37	444.67	2,223.35
410	BRICK WORK	CM	342.65	282.72	3,189.01	953.60	4,767.98
411a	STONE MASONRY RANDOM DRY	CM	285.39	107.96	628.81	255.54	1,277.69
411b	STONE MASONRY RANDOM WITH MORTAR	CM	308.64	166.68	1,655.14	532.62	2,663.08
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	375.66	107.96	696.80	295.10	1,475.52
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	444.05	166.68	1,734.18	586.23	2,931.13

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	73.88	11.74	43.75	32.34	161.72
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	601.35	264.08	1,639.37	626.20	3,131.00
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	224.62	437.48	643.39	326.37	1,631.87
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	219.04	577.19	834.17	407.60	2,037.99
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	211.49	935.96	1,069.85	554.33	2,771.63
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	222.11	1,146.39	1,598.23	741.68	3,708.41
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	254.21	1,078.41	2,297.87	907.62	4,538.11
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	314.06	1,331.30	3,614.54	1,314.98	6,574.88
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	406.44	1,481.41	4,680.50	1,642.09	8,210.43
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	476.92	1,798.85	5,964.68	2,060.11	10,300.57
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	568.40	2,098.66	9,213.95	2,970.25	14,851.27
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	224.62	507.33	722.10	363.51	1,817.56
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	219.04	577.19	852.99	412.30	2,061.52
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	207.06	935.96	1,044.43	546.86	2,734.32
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	222.11	1,146.39	1,743.69	778.05	3,890.23
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	254.21	1,078.41	3,316.03	1,162.16	5,810.82
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	314.06	1,331.30	4,871.85	1,629.30	8,146.52
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	406.44	1,481.41	6,808.93	2,174.19	10,870.96
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	476.92	1,798.85	9,234.95	2,877.68	14,388.41
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	568.40	2,098.66	12,992.82	3,914.97	19,574.84
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	86.90	118.93	315.27	130.27	651.36
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	712.01	612.95	3,471.10	1,199.01	5,995.06
507a	STEEL WIRE MESH FOR GABIONS	KG	5.18	-	109.50	28.67	143.35
507b	ROCK FILL IN GABIONS	CM	94.05	-	352.92	111.74	558.71
508a	BRICK PAVING (SINGLE COURSE)	SM	112.10	32.70	259.21	101.00	505.01
508b	BRICK PAVING (DOUBLE COURSE)	SM	202.38	32.70	515.58	187.66	938.32
509a	RIP RAP CLASS "A"	CM	489.74	-	534.00	255.93	1,279.67
509b	RIP RAP CLASS "B"	CM	472.76	-	529.73	250.62	1,253.11
509c	RIP RAP CLASS "C"	CM	476.95	-	534.00	252.74	1,263.68

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	597.66	102.14	1,926.98	656.70	3,283.48
509e	GROUTED RIP RAP CLASS "B"	CM	577.71	81.72	1,778.01	609.36	3,046.80
509f	GROUTED RIP RAP CLASS "C"	CM	571.70	68.10	1,823.85	615.91	3,079.56
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	774.65	353.02	4,039.99	1,291.92	6,459.59
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	46.27	191.97	348.49	146.68	733.42
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	102.55	390.69	-	123.31	616.55
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	152.15	67.48	86.78	76.60	383.00
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	194.75	86.37	111.07	98.05	490.24
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	249.46	180.32	372.92	200.68	1,003.38
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	311.83	225.40	466.15	250.84	1,254.22
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	259.57	572.25	2,189.96	755.45	3,777.23
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	931.32	670.54	4,035.66	1,409.38	7,046.89
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	135.38	90.27	423.54	162.30	811.48
603	BRICK EDGING	M	8.75	-	41.76	12.63	63.14
604a	METAL GUARD RAIL	M	17.41	70.84	1,579.36	416.90	2,084.52
604b	METAL GUARD RAIL END PIECES	EACH	23.81	-	1,197.58	305.35	1,526.74
604d	STEEL POST OF METAL GUARD RAIL	EACH	80.29	976.73	3,776.31	1,208.33	6,041.66
605a	CONCRETE BEAM GUARD RAIL	M	73.86	30.82	589.31	173.50	867.50
605c	CONCRETE POST FOR GUARD RAIL	M	90.69	27.36	589.04	176.77	883.87
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	230.86	255.15	6,846.99	1,833.25	9,166.25
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	67.23	382.72	9,233.84	2,420.95	12,104.75
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	230.86	541.89	11,846.66	3,154.85	15,774.25
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	760.60	598.64	20,895.12	5,563.59	27,817.96
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	152.12	119.73	9,196.07	2,366.98	11,834.90
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	271.93	-	1,302.95	393.72	1,968.60
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	271.93	-	1,954.43	556.59	2,782.95
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	2.59	5.86	16.16	6.15	30.76
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	0.86	4.03	39.65	11.14	55.68
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	2.59	5.86	21.56	7.50	37.51

District: Swabi **District Code: 66-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	0.86	4.03	52.89	14.44	72.22
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	74.48	5.22	156.16	58.96	294.81
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	74.48	9.98	499.68	146.03	730.17
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.23	8.59	22.48	8.57	42.87
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.23	9.63	67.50	20.09	100.46
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.23	6.95	29.97	10.04	50.19
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.23	9.63	90.01	25.72	128.59
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	74.48	3.73	217.02	73.80	369.02
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	74.48	7.90	851.20	233.39	1,166.97
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	61.79	3.73	104.11	42.41	212.03
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	61.79	7.90	333.62	100.83	504.14
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	61.79	3.73	144.68	52.55	262.75
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	61.79	7.90	568.32	159.50	797.52
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	8.69	81.62	193.80	71.03	355.14
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	8.69	81.62	233.80	81.03	405.13
610b	RIGHT OF WAY MARKER	EACH	101.91	121.33	298.33	130.39	651.96
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	632.56	976.31	1,999.97	902.21	4,511.04
610d	TEN KILOMETRE POST	EACH	1,214.38	1,952.61	4,397.63	1,891.15	9,455.77
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	127.74	91.00	948.31	291.76	1,458.81

NATIONAL HIGHWAY AUTHORITY

COMPOSITE SCHEDULE OF RATES
January - 2009

TANK
(70-A)

SHABIR ASSOCIATES
Quantity Surveying & Construction Cost Consultants

District: Tank **District Code: 70-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
101	CLEARING AND GRUBBING	SM	0.81	10.10	-	2.73	13.64
102a	REMOVAL OF TREES 150 - 300 mm GIRTH	EACH	8.02	173.32	1.17	45.63	228.13
102b	REMOVAL OF TREES 301 - 600 mm GIRTH	EACH	23.27	456.54	2.63	120.61	603.04
102c	REMOVAL OF TREES 601 mm OR OVER GIRTH	EACH	93.07	1,826.16	10.51	482.44	2,412.18
103	STRIPPING	CM	2.74	93.22	-	23.99	119.95
104	COMPACTION OF NATURAL GROUND	SM	0.39	9.91	0.76	2.76	13.82
106a	EXCAVATE UNSUITABLE COMMON MATERIAL	CM	4.53	135.76	-	35.07	175.35
106bi	EXCAVATE UNSUITABLE HARD ROCK MATERIAL	CM	131.49	316.30	50.82	124.65	623.27
106bii	EXCAVATE UNSUITABLE MEDIUM ROCK MATERIAL	CM	18.24	337.99	-	89.06	445.29
106biii	EXCAVATE UNSUITABLE SOFT ROCK MATERIAL	CM	11.82	262.40	-	68.55	342.77
106c	EXCAVATE SURPLUS COMMON MATERIAL	CM	3.70	120.27	-	30.99	154.97
106di	EXCAVATE SURPLUS HARD ROCK MATERIAL	CM	131.49	316.30	50.82	124.65	623.27
106dii	EXCAVATE SURPLUS MEDIUM ROCK MATERIAL	CM	20.88	316.03	-	84.23	421.14
106diii	EXCAVATE SURPLUS SOFT ROCK MATERIAL	CM	9.18	263.92	-	68.27	341.37
107a	STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	7.42	137.60	0.38	36.35	181.75
107b	STRUCTURAL EXCAVATION IN COMMON MATERIAL BELOW WATER LEVEL	CM	67.61	287.11	70.80	106.38	531.91
107ci	STRUCTURAL EXCAVATION IN HARD ROCK MATERIAL	CM	116.01	427.01	33.88	144.23	721.13
107cii	STRUCTURAL EXCAVATION IN MEDIUM ROCK MATERIAL	CM	98.27	292.53	-	97.70	488.51
107ciii	STRUCTURAL EXCAVATION IN SOFT ROCK MATERIAL	CM	59.66	238.86	-	74.63	373.16
107d	GRANULAR BACK FILL	CM	37.16	137.14	348.64	130.74	653.68
107e	COMMON BACK FILL	CM	28.66	62.84	5.09	24.15	120.74
108a	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN COMMON MATERIAL	CM	7.14	174.71	5.09	46.73	233.67
108bi	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN HARD ROCK MATERIAL	CM	21.41	482.48	54.04	139.48	697.41
108bii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN MEDIUM ROCK MATERIAL	CM	16.06	416.71	2.42	108.80	543.98
108biii	FORMATION OF EMBANKMENT FROM ROADWAY EXCAVATION IN SOFT ROCK MATERIAL	CM	14.27	369.34	-	95.90	479.52
108c	FORMATION OF EMBANKMENT FROM BORROW EXCAVATION IN COMMON MATERIAL	CM	8.30	177.46	7.94	48.42	242.12
108d	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN COMMON MATERIAL	CM	6.48	76.32	5.09	21.97	109.86
108e	FORMATION OF EMBANKMENT FROM STRUCTURAL EXCAVATION IN ANY TYPE OF ROCK MATERIAL	CM	15.46	110.29	3.03	32.19	160.97
109a	SUB GRADE PREPARATION IN EARTH CUT	SM	1.46	27.34	1.46	7.56	37.81

District: Tank **District Code: 70-A**

CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
109bi	SUB GRADE PREPARATION IN EXISTING ROAD WITHOUT ANY FILL	SM	1.05	18.21	0.77	5.01	25.04
110	IMPROVED SUB-GRADE	CM	10.60	120.02	54.09	46.18	230.90
114a	DRESSING OF BERM WITHOUT EXTRA MATERIAL	SM	0.91	15.26	0.79	4.24	21.21
114b	DRESSING OF BERM WITH EXTRA BORROW MATERIAL	SM	1.33	15.57	0.90	4.45	22.24
201	GRANULAR SUB-BASE	CM	8.36	255.06	564.15	206.89	1,034.47
202	AGGREGATE BASE	CM	9.66	326.54	739.55	268.94	1,344.70
203a	ASPHALTIC BASE COURSE PLANT MIX (CLASS "A")	CM	79.77	1,510.17	6,311.32	1,975.31	9,876.57
203b	ASPHALTIC BASE COURSE PLANT MIX (CLASS "B")	CM	82.13	1,510.17	6,759.22	2,087.88	10,439.39
203c	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "A")	CM	87.67	1,577.28	6,300.90	1,991.46	9,957.32
203d	ASPHALTIC LEVELLING COURSE PLANT MIX (CLASS "B")	CM	87.67	1,571.31	6,910.49	2,142.37	10,711.83
204b	CEMENT STABILIZED BASE	CM	30.03	569.10	1,076.33	418.87	2,094.33
204d	LIQUID ASPHALT FOR CURING SEAL, TYPE MC-250	TON	252.16	915.38	55,731.63	14,224.79	71,123.96
204e	EMULSIFIED ASPHALT FOR CURING SEAL, TYPE SS-1	TON	252.16	915.38	54,153.50	13,830.26	69,151.30
205a	GRADED CRUSHED AGGREGATE CRACK-RELIEF LAYER	CM	108.26	112.80	968.33	297.35	1,486.73
205b	ASPHALTIC OPEN-GRADED PLANT MIX CRACK-RELIEF LAYER	CM	159.20	2,437.94	5,949.21	2,136.59	10,682.94
206b	WATER BOUND MACADAM BASE WITH COARSE AGGREGATE CLASS B	CM	119.69	126.27	716.25	240.55	1,202.77
207a	DEEP PATCHING (0-15 cm)	SM	1.83	45.04	1.26	12.03	60.15
207b	DEEP PATCHING (16-30 cm)	SM	1.83	39.67	1.26	10.69	53.45
208	REINSTATEMENT OF ROAD SURFACE	SM	1.94	57.10	0.56	14.90	74.51
209a	BREAKING OF EXISTING ROAD PAVEMENT STRUCTURE	CM	2.17	110.61	0.68	28.37	141.83
209b	SCARIFICATION OF EXISTING ROAD PAVEMENT	SM	0.43	22.12	0.14	5.67	28.37
302a	CUT-BACK ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.31	1.57	39.55	10.36	51.80
302b	EMULSIFIED ASPHALT FOR BITUMINOUS PRIME COAT	SM	0.30	1.57	44.15	11.51	57.53
303a	CUT-BACK ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	16.55	4.31	21.57
303b	EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	SM	0.12	0.58	19.31	5.00	25.02
304a	SINGLE SURFACE TREATMENT	SM	0.80	7.57	79.17	21.89	109.43
304b	DOUBLE SURFACE TREATMENT	SM	1.16	14.15	153.59	42.23	211.13
304c	TRIPLE SURFACE TREATMENT	SM	1.94	19.94	175.27	49.29	246.44
304d	SEAL COAT	SM	0.74	4.12	55.73	15.15	75.74

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
305a	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "A")	CM	73.82	1,489.33	7,424.24	2,246.85	11,234.24
305b	ASPHALTIC CONCRETE FOR WEARING COURSE (CLASS "B")	CM	73.82	1,438.23	8,021.83	2,383.47	11,917.34
307a	DENSE GRADED HOT BIT-MAC	CM	183.61	379.77	6,203.46	1,691.71	8,458.56
307b	OPEN GRADED HOT BIT-MAC	CM	183.61	379.77	6,023.39	1,646.69	8,233.47
308a	RECYCLING OF ASPHALT CONCRETE (0 - 60 mm THICK)	CM	31.25	590.65	2,146.11	692.00	3,460.01
308b	BITUMEN BINDER GRADE (40 - 50, 60 - 70, 80 - 100)	TON	28.14	650.70	47,890.96	12,142.45	60,712.24
309a	COLD MILLING, 0 - 30 mm	SM	1.00	24.99	8.68	8.67	43.34
309b	COLD MILLING, 0 - 50 mm	SM	1.67	41.65	14.46	14.45	72.23
309c	COLD MILLING, 0 - 70 mm	SM	2.51	62.48	21.69	21.67	108.35
401a1i	CONCRETE CLASS "A1" (Underground)	CM	563.03	1,059.94	3,990.87	1,403.46	7,017.30
401a1ii	CONCRETE CLASS "A1" (On ground)	CM	563.03	1,059.94	4,268.34	1,472.83	7,364.14
401a1iii	CONCRETE CLASS "A1" (Elevated)	CM	563.03	1,059.94	4,823.29	1,611.56	8,057.82
401a2i	CONCRETE CLASS "A2" (Underground)	CM	563.03	1,059.94	4,368.87	1,497.96	7,489.80
401a2ii	CONCRETE CLASS "A2" (On ground)	CM	563.03	1,059.94	4,646.34	1,567.33	7,836.64
401a2iii	CONCRETE CLASS "A2" (Elevated)	CM	563.03	1,059.94	5,201.29	1,706.06	8,530.32
401a3i	CONCRETE CLASS "A3" (Underground)	CM	563.03	1,059.94	4,746.87	1,592.46	7,962.30
401a3ii	CONCRETE CLASS "A3" (On ground)	CM	563.03	1,059.94	5,024.34	1,661.83	8,309.14
401a3iii	CONCRETE CLASS "A3" (Elevated)	CM	563.03	1,059.94	5,579.29	1,800.56	9,002.82
401b	CONCRETE CLASS "B"	CM	726.57	805.93	3,220.55	1,188.26	5,941.31
401ci	CONCRETE CLASS "C" (Underground)	CM	562.20	500.55	3,553.89	1,154.16	5,770.80
401cii	CONCRETE CLASS "C" (On ground)	CM	562.20	500.55	3,672.24	1,183.75	5,918.73
401ciii	CONCRETE CLASS "C" (Elevated)	CM	562.20	500.55	3,908.92	1,242.92	6,214.59
401d	CONCRETE CLASS "D1"	CM	887.96	1,265.57	5,327.23	1,870.19	9,350.94
401e	CONCRETE CLASS "Y"	CM	1,247.79	500.55	4,774.73	1,630.77	8,153.84
401f	LEAN CONCRETE	CM	491.67	507.52	2,490.72	872.48	4,362.38
401gi(1)	PRECAST CONCRETE CLASS "A-1"	CM	1,925.20	947.15	4,996.03	1,967.10	9,835.48
401gi(3)	PRECAST CONCRETE CLASS "A-3"	CM	1,925.20	947.15	5,752.03	2,156.10	10,780.48
401gii	PRECAST CONCRETE CLASS "B"	CM	1,925.20	947.15	4,751.80	1,906.04	9,530.20
401giii(1)	PRECAST CONCRETE CLASS "D1"	CM	1,925.20	947.15	6,130.03	2,250.60	11,252.98

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
401giii(2)	PRECAST CONCRETE CLASS "D2"	CM	1,925.20	947.15	6,508.03	2,345.10	11,725.48
401giii(3)	PRECAST CONCRETE CLASS "D3"	CM	1,925.20	947.15	6,886.03	2,439.60	12,197.98
404a	REINFORCEMENT AS PER AASHTO M. 31 GRADE 40	TON	1,733.04	781.47	61,478.00	15,998.13	79,990.64
404b	REINFORCEMENT AS PER AASHTO M. 31 GRADE 60	TON	1,733.04	781.47	68,828.00	17,835.63	89,178.14
404h	REINFORCEMENT (STRUCTURAL SHAPES) AS PER ASTM-A-36	TON	1,393.24	5,393.81	57,035.76	15,955.70	79,778.52
405a	PRE-STRESSING WIRE STRAND 3/8" - 1/2" DIA COMPLETE IN ALL RESPECT	TON	2,848.15	15,659.05	133,847.57	38,088.69	190,443.47
405b	LAUNCHING OF GIRDER	TON	67.39	532.52	-	149.98	749.89
406a	PREMOULDED JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	127.30	-	310.06	109.34	546.70
406b	NEOPRENE RUBBER JOINT FILLER 12 mm THICK WITH BITUMASTIC JOINT SEAL	SM	127.30	-	308.96	109.06	545.32
406c	STEEL EXPANSION JOINTS	KG	10.39	26.40	91.90	32.17	160.86
406d	WATER STOPS 6" SIZE	M	109.05	-	469.14	144.55	722.73
406e	ELASTOMERIC BEARING PADS (ACCORDING TO SIZE AND THICKNESS)	ccm	0.02	-	2.12	0.53	2.67
406f	ASPHALT FELT (3 PLY)	SM	42.69	-	3,078.56	780.31	3,901.56
406g	STEEL OR METAL BEARING DEVICES	KG	21.96	69.68	118.12	52.44	262.21
407d1	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN NORMAL SOIL	M	371.93	1,654.04	898.40	731.09	3,655.46
407d2	CAST IN PLACE CONCRETE PILES UP TO 0.76 M DIA (BORING ONLY) IN GRAVEL STRATA	M	557.89	2,481.06	1,347.60	1,096.64	5,483.20
407d3	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN NORMAL SOIL	M	557.89	2,481.06	995.75	1,008.68	5,043.38
407d4	CAST IN PLACE CONCRETE PILES 0.80 - 1.4 M DIA (BORING ONLY) IN GRAVEL STRATA	M	929.82	4,135.11	1,171.54	1,559.12	7,795.59
407d5	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN NORMAL SOIL	M	796.99	4,884.94	1,347.88	1,757.45	8,787.26
407d6	CAST IN PLACE CONCRETE PILES 1.5 -2.0 M DIA (BORING ONLY) IN GRAVEL SOIL	M	1,394.73	6,909.78	1,482.79	2,446.83	12,234.13
407h	PILE LOAD TEST UP TO 120 TON	EACH	26,707.83	45,769.30	90,203.26	40,670.10	203,350.49
407i	PILE LOAD TEST UP TO 240 TON	EACH	50,208.71	45,769.30	180,406.52	69,096.13	345,480.66
407j	PILE LOAD TEST UP TO 360 TON	EACH	73,709.58	50,188.38	270,609.78	98,626.94	493,134.68
407k	CONFIRMATORY BORING (NX SIZE)	M	223.34	1,582.02	6.37	452.93	2,264.66
410	BRICK WORK	CM	352.35	282.72	2,929.04	891.03	4,455.14
411a	STONE MASONRY RANDOM DRY	CM	304.78	107.96	385.27	199.50	997.51
411b	STONE MASONRY RANDOM WITH MORTAR	CM	325.65	166.68	1,430.40	480.68	2,403.41
411c	STONE MASONRY DRESSED UNCOURSED DRY	CM	398.75	107.96	414.30	230.25	1,151.26
411d	STONE MASONRY DRESSED UNCOURSED WITH MORTAR	CM	466.61	166.68	1,465.77	524.76	2,623.82

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
411g	ROLL POINTING	SM	74.31	11.74	44.06	32.53	162.64
412a	STONE MASONRY DRESSED COURSED WITH MORTAR	CM	633.67	264.08	1,370.97	567.18	2,835.90
501a	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 310 mm	M	258.71	437.48	643.98	335.04	1,675.22
501b	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 380 mm	M	252.58	577.19	834.87	416.16	2,080.80
501c	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 460 mm	M	242.26	935.96	1,070.67	562.22	2,811.12
501d	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 610 mm	M	255.85	1,146.39	1,599.19	750.36	3,751.78
501e	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 760 mm	M	293.01	1,078.41	2,298.83	917.56	4,587.81
501f	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 910 mm	M	359.49	1,331.30	3,615.93	1,326.68	6,633.40
501g	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1070 mm	M	465.22	1,481.41	4,681.88	1,657.13	8,285.64
501h	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1220 mm	M	550.00	1,798.85	5,966.36	2,078.80	10,394.02
501i	R.C.C PIPE CULVERT AASHTO M 170 CLASS II DIA 1520 mm	M	648.30	2,098.66	9,215.91	2,990.72	14,953.59
501j	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 310 mm	M	258.71	507.33	723.27	372.33	1,861.65
501k	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 380 mm	M	252.58	577.19	853.69	420.86	2,104.32
501l	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 460 mm	M	235.80	935.96	1,045.25	554.25	2,771.27
501m	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 610 mm	M	255.85	1,146.39	1,744.43	786.67	3,933.34
501n	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 760 mm	M	293.01	1,078.41	3,317.10	1,172.13	5,860.65
501o	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 910 mm	M	359.49	1,331.30	4,873.24	1,641.01	8,205.04
501p	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1070 mm	M	465.22	1,481.41	6,810.31	2,189.23	10,946.17
501q	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1220 mm	M	550.00	1,798.85	9,236.63	2,896.37	14,481.86
501r	R.C.C PIPE CULVERT AASHTO M 170 CLASS IV DIA 1520 mm	M	648.30	2,098.66	12,994.77	3,935.43	19,677.17
502a	GRANULAR MATERIAL IN BED TO CONCRETE PIPE CULVERT	CM	101.72	118.93	287.07	126.93	634.64
502b	CONCRETE CLASS "B" IN BEDDING AND ENCASEMENT OF CONCRETE PIPE CULVERT	CM	830.63	612.95	3,570.55	1,253.53	6,267.65
507a	STEEL WIRE MESH FOR GABIONS	KG	5.81	-	113.36	29.79	148.97
507b	ROCK FILL IN GABIONS	CM	110.95	-	388.21	124.79	623.95
508a	BRICK PAVING (SINGLE COURSE)	SM	119.42	32.70	226.96	94.77	473.84
508b	BRICK PAVING (DOUBLE COURSE)	SM	213.39	32.70	451.31	174.35	871.75
509a	RIP RAP CLASS "A"	CM	513.10	-	290.46	200.89	1,004.45
509b	RIP RAP CLASS "B"	CM	496.10	-	288.14	196.06	980.30
509c	RIP RAP CLASS "C"	CM	498.68	-	290.46	197.29	986.43

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
509d	GROUTED RIP RAP CLASS "A"	CM	627.51	102.14	1,695.19	606.21	3,031.05
509e	GROUTED RIP RAP CLASS "B"	CM	604.33	81.72	1,546.95	558.25	2,791.24
509f	GROUTED RIP RAP CLASS "C"	CM	597.58	68.10	1,591.28	564.24	2,821.19
509g	REINFORCED CONCRETE SLOPE PROTECTION (WITHOUT REINFORCEMENT)	CM	869.39	353.02	4,132.53	1,338.74	6,693.68
509h	FILTER LAYER OF GRANULAR MATERIAL	CM	54.62	191.97	348.64	148.81	744.04
510	DISMANTLING OF STRUCTURE AND OBSTRUCTIONS	CM	120.28	390.69	-	127.74	638.72
511a1	DRY STONE PITCHING (15-20 cm Thick)	SM	163.28	67.48	47.20	69.49	347.44
511a2	DRY STONE PITCHING (21-25 cm Thick)	SM	209.00	86.37	60.42	88.95	444.73
511b1	GROUTED STONE PITCHING (15-20 cm Thick)	SM	263.28	180.32	351.87	198.87	994.34
511b2	GROUTED STONE PITCHING (21-25 cm Thick)	SM	329.10	225.40	439.83	248.58	1,242.92
601ai	CONCRETE KERB IN PLACE NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	298.65	572.25	2,234.22	776.28	3,881.40
601di	PRECAST REINFORCED CONCRETE KERB NEW JERSY BARRIER FOR MEDIAN (DOUBLE FACE)	M	1,055.20	670.54	4,116.24	1,460.49	7,302.47
601dii	PRECAST KERB IN CONCRETE CLASS A-1 OF SIZE 450 X 150 MM INCLUDING CONCRETE BEDDING & HAUNCHING	M	153.09	90.27	432.59	168.99	844.93
603	BRICK EDGING	M	9.67	-	36.48	11.54	57.69
604a	METAL GUARD RAIL	M	20.05	70.84	1,579.36	417.56	2,087.81
604b	METAL GUARD RAIL END PIECES	EACH	27.89	-	1,197.58	306.37	1,531.84
604d	STEEL POST OF METAL GUARD RAIL	EACH	91.71	976.73	3,776.31	1,211.19	6,055.94
605a	CONCRETE BEAM GUARD RAIL	M	84.45	30.82	599.67	178.74	893.68
605c	CONCRETE POST FOR GUARD RAIL	M	103.70	27.36	600.77	182.96	914.79
607a	TRAFFIC ROAD SIGN CATEGORY 1	EACH	258.99	255.15	6,867.24	1,845.35	9,226.73
607b	TRAFFIC ROAD SIGN CATEGORY 2	EACH	76.04	382.72	9,265.98	2,431.19	12,155.93
607c	TRAFFIC ROAD SIGN CATEGORY 3 (a)	EACH	258.99	541.89	11,900.41	3,175.32	15,876.60
607d	TRAFFIC ROAD SIGN CATEGORY 3 (b)	EACH	877.48	598.64	20,983.30	5,614.86	28,074.28
607e	TRAFFIC ROAD SIGN CATEGORY 3 (c)	SM	175.50	119.73	9,225.46	2,380.17	11,900.85
607f	ADDITIONAL PANEL SIZE 60 X 30 cm	EACH	300.66	-	1,306.05	401.68	2,008.39
607g	ADDITIONAL PANEL SIZE 90 X 30 cm	EACH	300.66	-	1,959.07	564.93	2,824.67
608b1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.05	5.86	16.18	6.27	31.37
608b2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	1.02	4.03	39.87	11.23	56.15
608c1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.05	5.86	21.59	7.63	38.13

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CODE	DESCRIPTION	UNIT	MANPOWER	EQUIPMENT	MATERIAL	OH-PROFIT	RATE
608c2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	1.02	4.03	53.18	14.56	72.78
608d1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	82.69	5.22	156.37	61.07	305.35
608d2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	82.69	9.98	502.46	148.78	743.92
608h1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 15 cm WIDTH	M	3.81	8.59	22.50	8.73	43.63
608h2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 15 cm WIDTH	M	3.81	9.63	67.50	20.24	101.19
608i1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR LINES OF 20 cm WIDTH	M	3.81	6.95	30.00	10.19	50.96
608i2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR LINES OF 20 cm WIDTH	M	3.81	9.63	90.01	25.86	129.32
608j1	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR 4.0 M ARROWS	EACH	82.69	3.73	217.23	75.91	379.56
608j2	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR 4.0 M ARROWS	EACH	82.69	7.90	851.20	235.45	1,177.24
608n1	PAVEMENT MARKING IN NON-REFLECTIVE CR PAINT FOR STOP	EACH	69.16	3.73	104.25	44.28	221.42
608n2	PAVEMENT MARKING IN NON-REFLECTIVE TP PAINT FOR STOP	EACH	69.16	7.90	335.48	103.14	515.68
608n3	PAVEMENT MARKING IN REFLECTIVE CR PAINT FOR STOP	EACH	69.16	3.73	144.82	54.43	272.14
608n4	PAVEMENT MARKING IN REFLECTIVE TP PAINT FOR STOP	EACH	69.16	7.90	568.32	161.35	806.73
609c	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - SINGLE)	EACH	9.89	81.62	193.82	71.33	356.66
609d	REFLECTORIZED PAVEMENT STUD (RAISED PROFILE TYPE - DOUBLE)	EACH	9.89	81.62	233.82	81.33	406.66
610b	RIGHT OF WAY MARKER	EACH	119.12	121.33	303.51	135.99	679.94
610c	KILOMETRE POST (0.610 X 0.114 X 1.5 M)	EACH	704.70	976.31	2,049.32	932.58	4,662.90
610d	TEN KILOMETRE POST	EACH	1,370.99	1,952.61	4,495.94	1,954.89	9,774.43
611a	CHAIN LINK WIRE FABRIC FENCING 1500 MM HEIGHT WITH PRECAST PRESTRESSED R.C.C. POST	M	146.16	91.00	953.85	297.75	1,488.76