

# AZAD GOVERNMENT OF THE STATE OF JAMMU AND KASHMIR

### **COMPOSITE SCHEDULE OF RATES**

Updated for 1st Semi-Annual (July - December) 2016

#### **DISTRICT BAGH**

PLANNING AND DEVELOPMENT DEPARTMENT, KASHMIR PLAN HOUSE.

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# **PREFACE**

The Planning & Development Department, Government of AJ&K felt the need to have a Composite Schedule of Rates (CSR) for AJ&K. The Composite Schedule of Rates was required to introduce a common basis for value engineering in accordance with the geophysical conditions and available resources of AJ&K. National Engineering Services Pakistan (Pvt.) Limited (NESPAK), being the largest Consultant firm and having a rich experience of various projects in AJ&K was engaged to carry out the assignment. It was agreed that due to urgency of implementing a CSR for ongoing development works in AJ&K, NESPAK has submited CSR in three stages i.e: Pre-Interim, Interim and Final. Pre-Interim CSR was submitted in March, 2008 and after receiving feedback from all the stakeholders Interim CSR was submitted and its enforcement was approved by the AJK Cabinet in its meeting held on August 19, 2009. Additional items of work have been added upon the recommendations of various Departments. The rates used for the preparation of this Composite Schedule of Rates have been updated to the prevailing prices of construction materials, machinery and labour for the month of January 2016 in all ten districts of AJ&K on semi-annual basis.

The CSR-2009 (updated) has been computerized in such a manner that links exist between the basic data file, comprising rates of construction materials, labor and rental of machinery. Furthermore those calculation carried out in files of detailed analysis (Volume-II, A & B) and resulted to modify the files of Composite Schedule of Rates (Volume-I). Any revision initiated in the "basic data" file would correspondingly revise the relevant item rate.

The Schedule consists of two Volumes; namely Composite Schedule and Detailed Analysis for each district of AJ&K. Each page of the CSR bears identification details with respect to its edition, volume and district.

Minor adjustment in the market rates have been made using best professional judgment and using data from our survey of various districts of AJ&K and other cities of Pakistan. The Rate Analysis Section constituted by the Government of AJ&K is deputed to monitor and resolve difficulties that may arise in the application of the rates contained in this schedule to cope with regional imbalances at a given time.

All cost estimates for administrative approval and detailed estimates for technical sanction shall be prepared on the basis of rates provided in the Schedule. This Schedule will form bench mark for inviting tenders for which specific item of works included in the estimate shall be identified for quotation above or below the rates.

The rates for items other than those given in this Schedule shall be treated as non-scheduled items. The analysis of rates for such items shall be prepared by the concerned Executive Engineer and approved by the competent authority (Superintending Engineer) before the work undertaken, keeping in view the provisions of the delegations of the financial powers. Copies of the approved rate analysis shall be forwarded to Rate Analysis Section P&DD for reference and review where-ever found necessary and then incorporation in next updation, if justified. This Schedule of Rates supersedes all previous documents and shall become effective from the date of issuance.



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#### **GENERAL CONDITIONS**

- 1. The work contained in this Schedule of Rates shall be carried out in accordance with the specifications given briefly for each item and the applicable provisions of the West Pakistan Schedule of Rates Committee Specifications as adopted by the Government of AJ&K duly amended from time to time
- 2. The rates entered against all items in the Schedule of Rates are those referred to in contract as the basic rates which cover the cost of all materials, transportation to site of work, labour, equipment, tools, plants, supervision charges, all Government levies, imports, octroi charges, overheads, profits and incidental cost thereto required for the satisfactory completion of the work. Charges for testing the Public Health engineering and Electrical works are also included in this schedule.
- 3. Unless otherwise stipulated, measurements for payment for the work done shall confirm to the specification for the execution of works West Pakistan Standing Rates Committee adopted by the Government of AJ&K.
- 4. For certain items of the work floor-wise rates have been entered in this schedule. For this purpose, the rates for the basement shall be applied to all works below the foundation up to the top of roof of basement. Rates for the ground floor include the cost of all works from the top of the basement roof up to the top of ground floor and so on. Parapet, water tank and stair wall etc. shall be considered as part of the floor above which these are constructed.
- 5. If a discrepancy is found between various documents, the order of precedence given below shall govern to determine the scope of the contracted work forming part of the contract based on this schedule:
  - Schedule of Quantities
  - West Pakistan Standing Rates Committee Specifications as adopted by the Government of AJ&K.
  - Special condition of the agreement
  - Conditions of contract
  - Drawings
- 6. The unit rates of plant, materials and labor given in this schedule are indicative and shall not form bases for a claim by the contractor for the works let out on percentage above or below the composite schedule of items.
- 7. Nominal conversion figures from System International to System Imperial have been given as complete switch over has not yet been achieved.
  - i. Cost of Manpower not charged to the items directly such as Contractor's Head Office, Project Office, Security, Laboratory, Survey, Account, Stone and Administration staff.
  - ii. Expenses on Laboratory, Camp, Workshop, Office and allied equipments and fixtures.
  - iii. Small equipment, tools and attachments.
  - iv. Advance tax deductible at source.



# ABBRIVATIONS USED

| SYSTEM IMPERIAL        |        | SYSTEM INTERNATIONAL         |                   |  |
|------------------------|--------|------------------------------|-------------------|--|
| Running foot           | R.ft.  | Millimeter                   | mm                |  |
| Square foot            | Sq.ft. | Centimeter                   | cm                |  |
| Cubic foot             | Cu.ft. | Running Meter                | RM                |  |
| Pound                  | Lb     | Square Meter                 | Sq.m              |  |
| Ounce                  | Oz     | Cubic Meter                  | Cu.m.             |  |
| Pounds per Square inch | Psi    | Kilogram                     | Kg.               |  |
| Gross                  | Grs    | Newton per millimeter square | N/mm <sup>2</sup> |  |
| Maund                  | Mnd    | Hundred                      | Hund              |  |
| Dozen                  | Dz     |                              |                   |  |



# **CONVERSION FACTORS**

| TO CONVERT                            | INTO           | MULTIPLY BY |
|---------------------------------------|----------------|-------------|
|                                       |                |             |
| <u>LENGTH</u>                         |                |             |
| Inch                                  | Millimeter     | 25.40       |
| Millimeter                            | Inch           | 0.0394      |
| Foot                                  | Meter          | 0.3048      |
| Meter                                 | Foot           | 3.2808      |
| Yard                                  | Meter          | 0.9144      |
| Meter                                 | Kilometer      | 1.6093      |
| Kilometer                             | Mile           | 0.6214      |
| Canal Mile (500 feet)                 | Kilometer      | 1.524       |
| Kilometer                             | Canal Mile     | 0.6562      |
| Girah                                 | Millimeter     | 57.15       |
| Mile International                    |                |             |
| Nautical (6076.12 feet)               | Meter          | 1852.00     |
| Mile UK nautical (6080 feet)          | Meter          | 1853.18     |
| MASS WEIGHT                           |                |             |
| Pound                                 | Kilogram       | 0.4536      |
| Kilogram                              | Pound          | 0.2046      |
| Ounce                                 | Gram           | 28.3495     |
| Gram                                  | Ounce          | 0.0353      |
| Quintal                               | Kilogram       | 100.00      |
| Grain                                 | Milligram      | 64.7989     |
| Hundred Weight                        | Kilogram       | 50.8023     |
| Tonne                                 | Hundred Weight | 19.6841     |
| Ton                                   | Kilogram       | 1016.047    |
| MASS WEIGHT                           | Mogram         | 1010.047    |
| WAGG WEIGHT                           |                |             |
| Ton                                   | Tonne          | 1.0160      |
| Tonne                                 | Ton            | 0.9842      |
| Seer                                  | Kilogram       | 0.9331      |
| Maund                                 | Kilogram       | 37.324      |
| Tola                                  | Gram           | 11.664      |
| Short Ton (2000 lbs)                  | Tonne          | 0.9072      |
| · · · · · · · · · · · · · · · · · · · | <del>-</del>   |             |



# **CONVERSION FACTORS**

| TO CONVERT                | INTO              | MULTIPLY BY |
|---------------------------|-------------------|-------------|
| AREA                      |                   |             |
| Square Inch               | Square Millimeter | 645.16      |
| Square millimeter         | Square inch       | 0.0015      |
| Square Foot               | Square Meter      | 0.0929      |
| Square meter              | Square foot       | 10.7639     |
| Square Yard               | Square meter      | 0.8361      |
| Square meter              | Square Yard       | 1.1960      |
| Acre                      | Square meter      | 4046.8564   |
| Acre                      | Hectare           | 0.4047      |
| Hectare                   | Acre              | 2.4787      |
| Hectare                   | Square meter      | 10000       |
| Square mile               | Square kilometer  | 2.5899      |
| Square Kilometer          | Square mile       | 0.3861      |
| Square mile               | Hectare           | 258.999     |
| Hectare                   | Square mile       | 0.00386     |
| CAPACITY, VOLUME AND MODU | JLES OF SECTION   |             |
| Pint (UK)                 | Liter             | 0.5683      |
| Gallon (imperial)         | Liter             | 4.5461      |
| Cubic foot                | Liter             | 28.3168     |
| Cubic meter               | Liter             | 1000        |
| Liter                     | Cubic foot        | 0.0353      |
| Cubic inch                | Millimeter        | 16.3871     |
| Fluid ounce               | Millimeter        | 28.413      |
| Liter                     | Gallon (imperial) | 0.2199      |
| Cubic Inch                | Cubic millimeter  | 16387.1     |
| Cubic foot                | Cubic meter       | 0.0283      |
| Cubic meter               | Cubic foot        | 35.3147     |
| Cubic Yard                | Cubic meter       | 0.7645      |
| Cubic meter               | Cubic yard        | 1.3080      |
| Acre foot                 | Hectare meter     | 0.1233      |

1.4882 0.6720

0.6313



Pound per foot Kilogram per meter Ton per mile

| CONVERSION FACTORS  |  |  |  |  |
|---|--|--|--|--|
| TO CONVERT  | INTO   | MULTIPLY BY  |  |  |
| VLOCITY AND SPEED   |  |  |  |  |
| Foot per second Foot per minute Foot per second Kilometer per hour Mile per hour Kilometer per hour Mile per hour                                     | Meter per second Meter per second Kilometer per hour Foot per second Meter per second Mile per hour Kilometer per hour | 0.3048<br>0.0051<br>1.0973<br>0.9113<br>0.4470<br>0.6214<br>1.6093 |  |  |
| <u>FORCE</u>  |  |  |  |  |
| Kilogram force Pound force Ton force Newton Kilo Newton   | Newton<br>Newton<br>Kilo Newton<br>Pound force<br>Ton force  | 0.8066<br>4.4482<br>9.9640<br>0.2248<br>0.1004                     |  |  |
| FORCE PER UNITE LENGTH  |  |  |  |  |
| Pound force per foot  | Newton per meter   | 14.5939  |  |  |
| PRESSURE, STRESS AND MOD  | DULES OF ELASTICITY (1Pa   | a=1N/m <sup>2)</sup>   |  |  |
| Pound per Square foot Pound force per square inch Ton force per square inch Kilo Pascals Ton force per square inch Mega Pascals  MASS PER UNIT LENGTH | Pascals Kilo Pascals Kilo Pascals Pound force per square foot Mega pascals Pound force per square inch                 | 47.8803<br>6.8948<br>107.252<br>20.8354<br>15.4443<br>145.038      |  |  |

Kilogram per meter Pound per foot

Ton per kilometer



# **CONVERSION FACTORS**

| TO CONVERT  | INTO   | MULTIPLY BY   |  |  |  |  |  |
|---|--|---|--|--|--|--|--|
| MASS PER UNIT AREA  |  |   |  |  |  |  |  |
| Ton per Square mile<br>Pound per square foot<br>Kilogram per square meter   | Kilogram per square kilometer<br>Kilogram per square meter<br>Pound per square foot                                | 392.298<br>4.8824<br>0.2048                         |  |  |  |  |  |
| MASS PER UNIT VOLUME  |  |   |  |  |  |  |  |
| Pound per Cubic foot<br>Pound per Cubic foot<br>Kilogram per Cubic meter<br>Grams per Liter   | Kilogram per Cubic meter<br>Grams per liter<br>Pound per cubic foot<br>Pound per cubic foot                        | 16.0185<br>16.0185<br>0.06243<br>0.06243            |  |  |  |  |  |
| VOLUME RATE OF FLOW   |  |   |  |  |  |  |  |
| Cubic foot per second (cusec) Cubic foot per second (cusec) Gallon per minute Cubic foot per thousand acres Cubic foot per thousand acres | Cubic meter per second (cusec) Liter per second Liter per second Liter per hectare Cubic meter per square kilomete | 0.02832<br>28.3168<br>0.0757<br>0.0670<br>or 0.0070 |  |  |  |  |  |
| FUEL CONSUMPTION  |  |   |  |  |  |  |  |
| Gallon per mile<br>Mile per Gallon  | Liter per kilometer<br>Kilometer per liter   | 2.825<br>0.354                                      |  |  |  |  |  |
| MOVEMENT OF FORCE TORQUE  |  |   |  |  |  |  |  |
| Pound force foot Pound force inch Ton force foot Ton force inch   | Newton meter<br>Newton meter<br>Kilonewton meter<br>Kilonewton meter   | 1.3558<br>0.1130<br>3.0370<br>0.2531                |  |  |  |  |  |



# **CONVERSION FACTORS**

| TO CONVERT  | INTO  | MULTIPLY BY                         |
|---|---|-------------------------------------|
| SECOND MOMEMT OF AREA   |   |                                     |
| Inch <sup>4</sup>   | Millimeter <sup>4</sup>   | 416231                              |
| PLANE ANGLE   |   |                                     |
| Degree  | Radian  | 0.0174                              |
| WORK, ENERGY, POWER (1J =1Ws)                                   |   |                                     |
| Kilowatt hour<br>Foot pound force<br>Horse Power<br>Horse power | Kilo joule<br>Joule<br>Kilowatt<br>Kilogram force meter per sec | 3600<br>1.3558<br>0.7457<br>76.0402 |

<sup>\*</sup>For exact values, please consult Standard Hand Books



#### Recommended Construction Material Sources located in ten Districts & Around AJ&K

| S.No       | Name of Source                  | Rock Name      | Location of<br>Deposit         | Estimated<br>Reserve         | Remarks   | District              |  |
|------------|---------------------------------|----------------|--------------------------------|------------------------------|---|-----------------------|--|
| 1.         | Khurshidabad<br>Limestone       | limestone      | Khurshidabad<br>Village        | 15.0 million M <sup>3</sup>  | All type of concrete work   | Kahuta                |  |
| 2.         | Khurshidabad Dolorite           | Dolorite       | Khurshidabad<br>Village        | 4.0 million M <sup>3</sup>   |   |                       |  |
| 3.         | Palangi Nullah Gravel           | Gravel         | Palangi                        | L/S                          | Only for  |                       |  |
| 4.         | Tangari Battar River<br>Gravel  |                | Battar                         | Under prospection            | marginal use<br>concrete  |                       |  |
| 5.         | Malal Bagla sandstone           | Sandstone      | Malal Bagla                    | 6.0 million M <sup>3</sup>   | (2000psi<br>strength) with  | Bagh                  |  |
| 6.         | DanaSandstone                   |                | Dana                           | 8.0 million M <sup>3</sup>   | OPC   |                       |  |
| 7.         | Chamankot sandstone             |                | Chaman Kot                     | 12.0 million M <sup>3</sup>  |   |                       |  |
| 8.         | Bess Bagla sandstone            |                | Bess Bagla                     | 12.0 million M <sup>3</sup>  |   |                       |  |
| 9.         | Dhulli Sandstone                |                | Sandstone                      | 6.0 million M <sup>3</sup>   |   |                       |  |
| 10.        | Shujahabad sandstone            |                | Shujaabad                      | 10.0 million M <sup>3</sup>  |   |                       |  |
| 11.        | Patraita Sandstone              |                | Patriata                       | 3.0 million M <sup>3</sup>   |   |                       |  |
| 12.        | Lassdanna Sandstone             |                | Lassdanna                      | 20.0 million M <sup>3</sup>  |   |                       |  |
| 13.<br>14. | Yadgar limestone                | Limestone      | Yadgar<br>Batmang              | 25.50 million M <sup>3</sup> | All type of<br>concrete work<br>With Project<br>Specific<br>studies                                       |                       |  |
| 15.        |                                 |                | Hill Seri Dara                 | Under prospection            |   |                       |  |
| 16.        |                                 |                | Zahid Chowk<br>Pirchinasi road | Under prospection            |   |                       |  |
| 17.        | Noseri Dolorite                 | Dolorite       | Noseri Chelhana                | 7.0 million M <sup>3</sup>   |   |                       |  |
| 18.        | Lamnian Dolerite                | Dolorite       | Lamnian                        |                              |   | _                     |  |
| 19.        | Eran Sandstone                  | Sandstone      | Near Kohala                    | Under prospection            | Only for marginal use   | Muzaffarabad/ Hattian |  |
| 20.        | Chattar Kalas                   | Gravel         | Agar Naullah                   | Under                        | concrete (upto 2000psi  | d/F                   |  |
|            | sandstone gravels               |                | Chattar Kalas                  | prospection                  | strength) with  | aba                   |  |
| 21.        | Komikot sandstone               | Sandstone      | Komikot                        | Under                        | OPC   | fars                  |  |
| 22         | N' D.1 W                        | T .            | NT'                            | prospection                  | A 11 4 C  | zaf                   |  |
| 22.        | Niazpura Dolomitic<br>Limestone | Limestone      | Niazpura                       | 5.0 M <sup>3</sup>           | All type of<br>concrete work<br>With Project<br>Specific<br>studies                                       | Mu                    |  |
| 23.        | Lamnian Meta Basalt             | Igneous Bodies | Lamnian                        | 7.0 M <sup>3</sup>           | All type of<br>Concrete work<br>Except High<br>Strength<br>Concrete (upto<br>2000psi And<br>Asphalt Layer |                       |  |
| 24.        | Goi Dandli                      | Dolomite       | Kotli Goi Dandli<br>road       | Abundant deposit             | All type of concrete work   | Kotli                 |  |



| 25. | Kamroti Dolomite                  |                 | Kotli Nakial road  | 30.0 million M <sup>3</sup>  | with project<br>specific study<br>except Pre-<br>stress concrete |                       |
|-----|-----------------------------------|-----------------|--|------------------------------|--|-----------------------|
| 26. | Poonch river gravel               | Gravel          | Distributed along<br>Rive terraces                             | L/S                          | Only for marginal use  |                       |
| 27. | Poonch terraces                   |                 | do   | L/S                          | concrete (upto   |                       |
| 28. | Khorban Nullah gravel             |                 | do   | L/S                          | 2000 psi<br>strength) with                                       |                       |
| 29. | Khari Sharief                     | Gravel          | Khari Sharif   | Under prospection            | Only for marginal use  | Mirpur                |
| 30. | Mangla jatli road                 |                 | Mangla   | Under prospection            | concrete (upto<br>2000 psi<br>strength) with                     |                       |
| 31. | Jeri Kas                          |                 | Jeri Kas   | Under prospection            | OPC  |                       |
| 32. | Skater                            |                 | Skater Naullah   | Under prospection            | M.   |                       |
| 33. | Kanali Kas                        |                 | Kanali Kas   | Under prospection            | 360  |                       |
| 34. | Kot Sarsawa                       |                 | Kot Sarsawa  | Under prospection            | #E2}   |                       |
| 35. | Hari Kas                          |                 | Hari Kas   | Under prospection            | 15X370 3A0   |                       |
| 36. | Panjari Nullah                    | Gravel          | Panjari  | Under prospection            | Only for marginal use  | Bhimber               |
| 37. | Dandhar Nullah                    |                 | Dandar   | Under prospection            | concrete (upto<br>2000 psi<br>strength) with                     |                       |
| 38. | Chaprian                          |                 | Chaprian   | Under prospection            | OPC  |                       |
| 39. | Bakot Nathia-Gali                 | limestone       | Bakot  | 30.0 million M <sup>3</sup>  | All type of<br>concrete work<br>With Project                     | Abbotatabad           |
| 40. | Bakot Kas                         |                 |  |                              | Specific   | Abbottabad            |
| 41. | Noseri Dolorite                   | Dolorite        | Neelum Valley  | 1.5 million M <sup>3</sup>   | studies  |                       |
| 42. | Noseri volcanics                  | Metabasalt      | Road along<br>Noseri - Marble                                  | 9.03 million M <sup>3</sup>  | marginal use<br>with OPC   |                       |
| 43. | Islampur-Jura Granite             | Granite         | Sandoq-<br>Islampura   | Under prospection            | Stone Masonry  |                       |
| 44. | Neelum Granite Keran              | Granite         | Danjar - Keran   | Under prospection            |  | bad                   |
| 45. | Dudhnial Arenaceous<br>Carbonates | Metacarbonates  | MT Bazar<br>Dudhnial   | 1.656 million M <sup>3</sup> | Bitumen, plain<br>Concrete but<br>not for pre-                   | uzaffara              |
| 46. | Malik Seri Dolorite<br>Kharigam   | Dolorite        | Between Khawaja<br>Seri and<br>Kharigam along<br>Neelum Valley | 13.5 million M <sup>3</sup>  | stress concrete  | Neelum / Muzaffarabad |
| 47. | Kel Dolorite dykes                | Dolorite        | Kelser - Kel Road  | Under prospection            | All type of concrete work  |                       |
| 48. | Changan Meta<br>Dolorite          | Dolorite        | Changan -<br>Dudhnial Road                                     | 1.776 million M <sup>3</sup> | With Project Specific studies                                    |                       |
| 49. | Dhokran Gneiss Kel                | Granitic Gneiss | Kel-Dhokran<br>Road  | Under prospection            | Stone Masonry  |                       |



| 50. | Arja - Dalkot Section                             | Sandstone | Near Arja                           | Under prospection | Only for marginal use                       | Poonch   |
|-----|---|-----------|-------------------------------------|-------------------|---|----------|
| 51. | Gio Nullah Rawalakot                              |           |                                     | Under prospection | concrete (upto<br>2000psi<br>strength) with |          |
| 52. | Khaigalla-Hajira<br>outcrop                       |           | Near Hajira                         | Under prospection | OPC   |          |
| 53. | Hajira Abbaspur road<br>out crop                  |           | Hijira Abbaspur<br>road out crop    | Under prospection |   |          |
| 54. | Hajira Nar outcrop                                |           |                                     | Under prospection |   |          |
| 55. | Ban Ni Bhek Toli Pir<br>Road                      |           | Along Toli Pir<br>road              | Under prospection |   |          |
| 56. | Jhandala Sandstone                                |           | Arja Tain Road<br>Jhandal Locality  | Under prospection |   |          |
| 57. | Pappay Nar  | Sandstone | Along Tararkhal<br>to Palandri Road | Under prospection |   |          |
| 58. | Tarar Khal  |           |                                     | Under prospection |   | auti     |
| 59. | Nar near Tarar khal<br>Bazar along Hajira<br>road |           | Along Tararkhal<br>to Hajira Road   | Under prospection |   | Sudhnuti |
| 60  | Azad Pattan (Madan)                               |           | Azad Pattan -<br>Kalri road         | Under prospection |   |          |

(C) per med 18/8/20/

(Naveed Azad)
Geologist/Material Engineer

(Syed Ahmed Hassan)

Geotechnical/Material Engineer

(Engr.Altaf Ahmed)
Chief Rate Analysis-P&DD



#### **CARRIAGE**

- CARRIAGE OF MATERIALS INCLUDE LOADING, UNLOADING AND STACKING AT SITE.
- 2. THE RATES ARE APPLICABLE TO CARRIAGE OF MATERIAL ON PACCA ROAD ONLY.
  FOR KACHA ROADS AN ALLOWANCE OF 25% EXTRA SHALL BE ALLOWED FOR 2<sup>ND</sup> SUBSEQUENT DISTANCE COVERED IN KM.(MILES) RATES.
  RATES UP TO 1<sup>ST</sup> MILE (1<sup>ST</sup> KM.) IS HOWEVER COMMON TO BOTH KACH AND PACCA ROADS.
- 3. FOR HILLY AREAS 25% ABOVE THE RATES IN THE PLAIN AREAS BE ALLOWED FOR TOTAL DISTANCE COVERED IN KM.(MILES).
- 4. THE TERM "KM." WHENEVER USED IS TO MEAN STATUE KILOMETER.
- 5. THE RATES FOR CARRIAGE BY BOAT OR STREAMER SHALL BE THE SAME AS BY ANY OTHER MECHANICAL MEANS ON LAND.



# LOADING, UN-LOADING AND STACKING

1. THE RATE FOR LOADING INTO AND UN-LOADING FROM TROLLIES & BOATS WILL BE THE SAME AS FOR MOBILE TRUCKS.



#### EARTH WORK

- THE SOIL CLASSIFACTION (HARD, VERY HARD, WET AND SLUSH) WILL BE APPROVED BY THE SUPERINTENDING ENGINEER.
- 2. IN CASE OF EMBANKMENT FILL, THE MODE OF MEASUREMETN WILL BE INDICATED IN THE TENDER.
- 3. IN CASE BANK MEASUREMENT IS NECESSARY, FOLLOWING ALLOWANCES SHOULD BE PROVIDED FOR:
  - a) DEDUCATION FOR SHRINKAGE FROM THE BANK MEASUREMENT WHEN THE EARTWORK IS DONE BY MANUAL LABOUR = 10%.
  - b) DEDUCATION FOR SETTLEMENT FROM THE BANK MEASUREMENTS WHEN THE EARTH-WORK IS DONE BY DIFFERENT TYPE OF MACHIANARY WILL BE AS UNDR:
    - i. TRACTOR 6%
    - ii. BULLDOZERS 4%
    - iii. SCRAPERS 3%

Where the above equipment is deployed in fleet the minimum factor specified will be applied.

4. NO DEDUCATION WILL BE MADE FOR RAMMED/ COMPACTED FILL.



# DISMANTLING (DEMOLISHING)

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL AND BY PRODUCTS.
- 2. THE RATES FOR DISMANTLING ROOFS OR UPPER STORY FLOOR INCLUDE THE DISMANTLING OF ALL MATEHIALS, EXCEPT ROOF SUPPORTS SUCH AS BEAM AND TRUSSES.
- 3. ADD EXTRA 20% AND 25% FOR  $2^{ND}$  &  $3^{RD}$  AND 30% FOR  $4^{TH}$  & SUBSEQUENT FLOORS RESPECTIVELY.



#### PLAIN AND REINFORCED CONCRETE

- 1. RATES FOR ITEM 5-2 TO 5-4 ARE FOR UNFORMED CONCRETE
- 2. RATES FOR OTHER ITEMS ARE FOR MACHINE MIXED FORMED CONCRETE IN CASE EXIGENCY OF THE WORK SO WARRANTS, HAND MIXING MAY BE DONE WITH ADDITION OF 10% EXTRA CEMENT AT NO EXTRA COST.
- 3. THE CEMENT CONCRETE MAY EITHER BE PLAIN OR REINFORCED AND SHALL BE PAYABLE AT THE RATES SPECIFIED AGAINST RESPECTIVE ITEMS. THE STEEL REINFORCEMENT SHALL HOWEVER BE PAYABLE SEPARATELY UNDER APPLICABLE ITEMS 5-44 OF THE SCHEDULE.
- 4. RATES FOR ALL FINSHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSEK MATERIAL, BY PRODUCTS AND SITE CLEARANCE.



# PRESTRESSED CONCRETE

- 1. RATES FOR ALL FINSHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRAI, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. THE PRESTRESSED CONCERETE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH SPECIFICATIONS LAID DOWN BY FREYSSINET OR SIMILAR SYSTEM.



### PILE FOUNDATION CONCRETE

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. RATES FOR DRILLING FOR DIFFERENT SIZES OF PILE SHALL BE THE SAME AS FOR TUBEWELL GIVEN IN SECTION 27.



### DAMP PROOF COURSE AND WATER PROOFING

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL BY PRODUCTS AND SITE CLEARANCE.



#### CEMENT CONCRETE BLOCK MASONRY

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL BY PRODUCTS AND SITE CLEARANCE.
- 2. NO PAYMENT SHALL BE MADE FOR FORMING CAVITIES IN BLOCK AND NO DEDUCTION TO BE MADE FOR HOLLOWNESS IN BLOCKS.
- 3. SKIN THICKNESS OF HOLLOW BLOCKS SHALL BE 1" (25 mm) FOR BLOCK SIZE 300 x 100 x 200, 300 x 150 x 200, 225 x 100 x 150 AND 300 x 100 x 200.
- 4. SKIN THICKNESS OF HOLLOW BLOCKS SHALL BE 1.5" (38 mm) FOR BLOCK SIZE 300 x 200 x 200, 300 x 300 x 200, 225 x 200 x 150 AND 225 x 300 x 150.
- 5. CONCRETE BLOCK SHOULD MEET THE REQUIREMENT OF 2000 PSI CRUSHING STRENGTH.



# **Bridges**

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY- PRODUCTS AND SITE CLEARANCE.
- 2. IF CONCRETE MIXER OR HIGH FREQUENCY VIBRATOR, ETC. SUPPLIED BY THE GOVERNMENT, ALL CHARGES INCLUDING DEPRECIATING WILL BE RECOVERED FROM THE CONTRACTOR.
- 3. SUBSEQUENT CARRIAGE OF CRUSH STONE AGGREGATE WILL BE PAID ACCORDING TO THE WHOLE DISTANCE TO THE SITE OF WORK, SHALL BE CALCULATED ON THE BASIS OF RATE OF THE ACTUAL MEAN OF TRANSPORT USED IN CARRIAGE. IT SHALL BE PAYABLE FROM THE NEAREST APPROVED QUARRY.



#### **BRICK WORK**

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. THE RATE APPLIES TO ALL SIZES OF BRICKS.
- 3. IN 2<sup>ND</sup> OR 3<sup>RD</sup> CLASS BRICKS ARE USED INSTEAD OF FIRST CLASS, THE DIFFERENCE IN RATE OF BRICKS IS DEDUCTED.
- 4. NO DEDUCTION IN MEASUREMENTS SHALL BE MADE FOR OPENING HAVING SUPERFICIAL AREA NOT EXCEEDING ONE SQUARE FOOT (0.35 SQUARE METERS).



# STONE MASONRY

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.



### **ROOFING**

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. ADD EXTRA 5% AND 10% SECOND, THIRD, 15% FOR FOURTH AND SUBSEQUENT FLOOR RESPECTIVELY.



#### **FLOORING**

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.



### **FINISHING**

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.



### **WOOD WORK**

- 1. NO EXTRA RATE IS TO BE PAID FOR SAWING.
- 2. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.



# PAINTING AND VARNISHING

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. RATES INCLUDE CHARGES FOR SCAFFOLDING AND OTHER ARRANGEMENTS AT ANY HEIGHT AND IN ANY FLOOR.
- 3. RATES FOR PAINTING SASHES, FANLIGHT, FULLY GLAZED OR FULLY GAUGED DOORS AND WINDOWS SHALL BE 60% OF RESPECTIVE ITEMS.



# LINING OF CANALS

- 1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. RATES ALSO INCLUDE CURING FOR SPECIFIED PERIOD WHEREVER NECESSARY.
- 3. NOMINAL DIMENSIONS OF TILE OR BRICK SHALL BE TAKEN FOR THE PURPOSE OF MEASUREMENT AND PAYMENT.
- 4. JOINTS TREATMENT WILL BE PAID FOR RESPECTIVE ITEMS IN SECTION 5 "CONCRETE"



# PROTECTION AND DIVERSION WORKS

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL BY PRODUCTS AND SITE CLEARANCE.
- 2. THE COMPOSITE RATES OF THE ITEMS IN WHICH STONE, BOULDER, SHINGLE ETC. AND USED DO NOT CONTAIN THE CARRIAGES OF THESE MATERIALS WHICH WILL BE PAID SEPARATELY WHICHEVER MEANS OF TRANSPORT IS ADOPTED. THE SUPPLY AND CARRIAGE TO SITE OF WORK OF ALL OTHER MATERIAL, REQUIRED IN ITEM IS INCLUDED IN THE COMPOSITE RATE.
- 3. THE CARRIAGE OF STONE OR SPAWL WILL BE PAID ON THE BASIS OF ACTUAL STACK MEASUREMENT (WITHOUT ANY REDUCTION FACTOR) OF THE STONE, BOULDERS, SHINGLE OR SPAWL CARRIED.
- 4. THE STONE, BOULDERS OR SPAWL IS WHERE ISSUED FORM STOCK AND THE CONTRACTOR IS PAID FOR CARRIAGE AND /OR LABOUR ONLY OR WHERE SUCH STONE PRODUCT IS SUPLLIED, CARRIED OR HANDLED BY THE CONTRACTOR IN WHICH NO LAYING IS REQUIRED, THE ACTUAL STACK MEASUREMENT (WITHOUT ANY REDUCTION FACTOR) SHALL FORM THE BASIS OF PAYMENT OF SUPPLY OR CARRIAGE OF THE STONE, BOULDER OR SPAWL ETC. THE QUANTITY OF FINSHED AND COMPLETED ITEM OF WORK SHALL FORM THE BASIS OF THE LAYING.
- 5. IN CASE OF THE ITEMS IN WHICH THE RATES INCLUDE CARRIAGE OF STAKES, BUSHING, PILCHI, SARKANDA OR FRASH ETC. WITHIN ONE KM.
  - a) THE COST OF THE CARRIAGE WITHIN ONE KM. SHALL NOT BE DEDUCTED FROM THE CARRIAGE CHARGES TO FOLLOW THEREAFTER FROM THE POINT OF SUPPLY.
  - b) IF THE SITE OF WOK HAPPENS TO BE WITHIN ONE KM. OF THE SOURCE OF SUPPLY, THE MATERIAL WILL BE COLLECTED AND MEASURED AT SITE OF WORK AND NO EXTRA CARRIAGE WOULD BE ADMISSIBLE IN SUCH CASES.
  - C) WHERE THE SITE OF THE WORK IS SITUATED AT MORE THAN ONE KM. DISTANCE FROM THE SOURCE OF SUPPLY, THE POINT OF SUPPLY WILL BE FIXED CAREFULLY BY THE ENGINEER-IN-CHARGE IN SUCH A WAY THAT THE CARRIAGE CHARGES WOULD BE ARRIVED AT THE MOST ECONOMICALLY.EXTRA CHARGES WILL BE ADMISSIBLE FROM THE PLACE OF STARTING POINT. THE DEMARCATION OF THE PLACE OF SUPPLY SHALL BE PRE-DETERMINED BEFORE CALLING THE TENDERS.
- 6. IN CASE OF STONE PITCHING WORK, NO VOIDS DEDUCTION WILL BE MADE WHILE MEASURING THE FINISHED WORK.



#### **OUTLETS**

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. THE ITEMS OF WORK INVOLVED IN CONSTRUCTION OF OUTLETS SUCH AS EARTHWORK, CONCRETE AND BRICK WORK SHALL BE PAID FOR UNDER RESPECTIVE ITEMS OF THE RELEVANT SECTION.
- 3. THE MANUFACTURE, SUPPLY AND DELIVERY TO SITE OF A.P.M. AND/OR O.F. OUTLETS IRON BLOCKS SHALL BE THE RESPONSIBILITY OF THE DEPARTMENT.



# ROAD AND ROAD STRUCTURES

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- THE RATES INCLUDE PROVISION AND MAINTENANCE OF FIELD TEST LABOUATORY STAFF, COST OF MATERIAL FOR TESTING ETC.
- 3. PAYMENTS FOR ITEMS OF ROADS AND ROAD STRUCTURE SHALL BE MADE FROM THIS SECTION.



# SHEET PILING

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.



# PLUMBING, SANITARY INSTALLATIO & GAS FITTINGS

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.
- 2. THE RATES INCLUDE CUTTING AND MAKING GOOD OF THE SURFACE OF WALLS, ROOFS, AND FLOORS ETC. WHER NECESSARY.
- 3. ADD 10% EXTRA FOR FIXING SPECIALS IN REPAIR WORK FOR ITEM 23-46.



# SURFACE DRAINAGE

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.
- 2. CEMENT PLASTER WHERE APPLIED SHALL BE MEASURED FOR PAYMENT SEPERATELY.



#### **SEWERAGE**

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.
- EXCAVATION AND BACKFILLING FOR FOUNDATION AND TRENCHES SHALL BE PAID FOR SEPARATELY.
- 3. DEPTH OF CHAMBER SHALL BE MEASURED VERTICALLY FROM TOP OF COST IRON COVER TO TOP SURFACE OF FLOORING.
- 4. IF SPECIFACATIONS OF MANHOLES AS MENTIONES IN ITEM NO. 25-4 TO 25-8 ARE NOT MET THAN PAYMENT SHALL BE MADE FOR DIFFERENT ITEMS FROM OTHER SECTIONS OF THIS SCHEDULE.



# SINKING OF WELLS

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.
- 2. WELL CURBS TO BE LAID AT SPRING LEVEL OR AS DEEP AS POSSIBLE.
- 3. THE OUTER DIMENSIONS OF THE CURB SHALL FORM BASIS OF PAYMENT.



# TUBEWELL AND WATER SUPPLY

- RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.
- 2. THE CAST IRON PIPES AND FITTINGS SHALL COMPLY WITH B.S. 78 FOR SPIGOT AND SOCKET, CAST IRON VERTICALS PIPES AND B.S. 2035 FOR FLANGED PIPES.
- 3. P.V.C. PIPES AND FITTINGS SHALL COMPLY WITH B.S. 3505.
- 4. ASBESTOS CEMENT PIPES AND FITTINGS SHALL COMPLY WITH B.S. 486
- 5. GALVANIZED IRON PIPES AND FITTINGS SHALL COMPLY WITH B.S. 1387-1967



# IRON STEEL & ALUMINIUM WORK

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.



# **HORTICULTURE**

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS.



# ELECTRICAL INSTALLATIONS

1. RATES FOR ALL FINISHED WORKS INCLUDE THE REMOVAL OF SURPLUS DEBRIS, UNUSED MATERIAL, BY PRODUCTS AND SITE CLEARANCE.



#### **BASIC DATA**

THE BASIC RATES OF CONSTRUCTION MATERIALS, LABOUR AND HIRE CHARGES OF PLANT & EQUIPMENT HAVE BEEN LINKED WITH FILES IN DETAILED ANALYSIS (Volume-1). ANY REVISION INITIATED IN THE "BASIC DATA" FILE CORRESPONDINGLY REVISE THE RELEVENT ITEM RATE. THESE RATES HAVE BEEN OBTAIND AFTER EXTENSIVE MARKET SURVEY.