



### Recommended Construction Material Sources for District Muzaffarabad

Sr.No	District	Sand sources		Coarse Aggregate Source	Stone for masonry		Clay deposits for Brick masonry		Stone soling of roads		Course Aggregate for Asphalt/premix used in roads		
		Local sources have marginal use (<2000psi strength)	out of district		Local	out of district	Local	out of district	Local	out of district			
1	Muzaffarabad	Dulai river sand deposit	Lawrencepur / Qibla bandi sand deposit	Yadgar limestone (Neelum aggregate crusher)	Bakot Nathia	Yadgar limestone	Bakot limestone	Nil	Rawalpindi Peshawar		Bakot limestone	.....	Bakot limestone source located at Nathia Gali road (Sari village at a distance of 12km from Kohala)
2					Gali road Sari locality (10km from Kohala)	Niazpura dolomite				Eran Sandstone		Niazpura dolomite	
3		Barsala river sand deposit			Chattar Kalas sandstone		Chattar Kalas sandstone	.....					
4					Lamian Dolomite		Kornikot sandstone	Sandri Bandi sandstone	.....				
5		Chalpani River sand deposit							.....				
6									.....				

Note:

- Sandstone of Murree Formation is widely distributed in Jhelum valley and its adjoining area, its characteristics may be correlated with Eran sandstone. It can be used with the consultation of Material Engineer or Geologist for mega projects.
- Ordinary Portland Cement (OPC) available in local market consist of 0.5 to 0.8% alkalies,
- To avoid the Alkali Silica Reaction OPC can be replaced with Pozolon, slag or low alkali cement which should meet the 10000psi strength (BS-12, ASTM C150).
- (i) Steel testing on each consignment is required to meet the ASTM 615A where for grade 40 steel required yield strength is 40,000psi and for grade 60 required yield strength is 60,000psi.  
(ii) Chemical tests of the steel should meet the ASTM 706A.
- Other local quarries material should be evaluated as per ranges provided in Table 4.1
- Material of fine & coarse aggregate not fulfill the evaluation criteria mentioned in Table 4.1 should be treated as rejected.
- For more detail visit our website [www.pndajk.gov.pk](http://www.pndajk.gov.pk)

Geologist 22/7/2011

Chief Rate Analysis Section



## Minimum Required Parameters for Brick Selection

S.No.	Class Of Brick	Weight Of Brick (lbs) (Bone Dry)	Size Of Brick (inch X inch X inch)	Water Absorption Ratio	Strength Of Brick (psi)
1	1 <sup>st</sup> Class	7	9 X 4-1/2 X 3	1/6 <sup>th</sup> of its dry Weight	1200 to 1500
2	2 <sup>nd</sup> Class	7	9 X 4-1/2 X 3	1/4 <sup>th</sup> of its dry Weight	900 to 1200
3	3 <sup>rd</sup> Class	6.75	9 X 4-1/2 X 3	1/3 <sup>rd</sup> of its dry Weight	500 to 900
4	4 <sup>th</sup> Class	7.2	9 X 4-1/2 X 3	1/2.5 of its dry Weight	Less than 500

*AK* *AV* *omul.*

Chief Rate Analysis 22/7/2011

Planning And Dev. Deptt

Govt. Of AJK M.abad

