

**TERMS OF REFERENCE
CONSULTANCY SERVICES FOR**

FEASIBILITY STUDY OF "Replacement of Sewerage From Akbari Mandi Grid Station To Bhatti Gate Lift Station Circular Road, Lahore and "Construction of conduit / open drain from Khaira Distributary to Hudiara Drain, Lahore"

PROJECT BACKGROUND:

Lahore being the capital city of Punjab and center of socio-economic activities is rapidly urbanizing. People from other parts of country are migrating towards Lahore at rapid rates. Water and Sanitation Agency (WASA) Lahore, is the subsidiary agency of Lahore Development Authority (LDA), Government of the Punjab, Pakistan, to perform all functions and exercise all powers with regard to water supply, sewerage and drainage with power to collect rates, fees and charges for water supply, sewerage & drainage. WASA Lahore is a regulated monopoly for water supply & sewerage services in the 2nd largest city of Pakistan, operating in the area of more than 350 Sq.km.

Main Trunk Sewer in Lahore was laid three decades ago. With the passage of time, the existing Trunk Sewer has been deteriorated from different points and crown failures are very frequent on this sewer. During monsoon, various crown failures happened and main road settled along a large portion. Chances of crown failure become higher in rains due to erosion mechanism. Moreover, efficiency of this sewer line is lower being outlived and sewerage of adjoining localities remain surcharged causing over flowing at tail streets and low lying areas. Such events result in serious public inconvenience and health threatening problems. Furthermore, the aforementioned area is densely populated and thus the existing sewerage system has gone insufficient to cater the sewage of all the catchment areas. Keeping in view the chronic situation, WASA Lahore intends to conduct a feasibility study to upgrade / replace the sewerage system to safeguard public health.

PROJECT OBJECTIVES:

The objective of this project is to conduct a feasibility study for Trunk / Main sewerage system of the following projects:

1. Replacement of Sewerage from Akbari Mandi Grid Station to Bhatti Gate Lift Station Circular Road, Lahore
2. Construction of conduit / open drain from Khaira Distributary to Hudiara Drain, Lahore

Tajpal Malik

SCOPE OF SERVICES:

The scope of services includes, but not limited to, the following:

1. Review of existing sewerage system.
2. Conduct topographic survey, levelling and establishing benchmarks with respect to Survey of Pakistan's survey makers / benchmarkers.
3. Preparation of Preliminary Engineering Design of sewerage system.
4. Preparation of Engineer's Cost Estimates / PC-I.
5. Preparation of Feasibility Study including Preliminary Design and Cost Estimates.

KEY EXPERTS:

Sr. No.	Position	No. of Persons	Time (Months)	Qualification & Experience
01.	Team leader / Design Engineer (Civil)	1	1.5	B.Sc. in Civil Engineering with at least 10 years of relevant experience
02.	Junior Engineer (Civil)	1	1.5	B.Sc. in Civil Engineering with at least 5 years of relevant experience
03.	Junior Engineer (Environment)	1	1.5	B.Sc. in Civil / Environmental Engineering with at least 5 years of relevant experience

REPORTING REQUIREMENTS:

Sr. No.	Deliverable	No. of Copies
1.	Inception Report	05
2.	Draft Feasibility Study Report	05
3.	Final Feasibility Study Report	05

DURATION OF THE ASSIGNMENT:

The Consultant will be required to complete the whole activities with in a period of 45 days.

