



Karachi Neighborhood Improvement Project
(Project Implementation Unit)
Planning & Development Department
Government of Sindh



TERM OF REFERENCE

CONSULTANCY SERVICES FOR DETAILED ENGINEERING DESIGN AND CONSTRUCTION
SUPERVISION OF EMERGENCY WORKS IN SADDAR, KORANGI, MALIR AREAS

1. GENERAL

Government of Sindh with the assistance from the World Bank Group has initiated the Karachi Neighborhood Improvement Project (KNIP) to improve public spaces in the city's selected neighborhoods and to strengthen the capacity of government institutions to provide selected administrative services such as business registration and construction permits. The development objective of Karachi Neighborhood Improvement Project is to enhance public spaces in targeted neighborhoods of the city and improve its capacity to provide selected administrative services.

The August 2020 flooding situation, after/during the covid-19 pandemic, in Karachi was unprecedented, and an emergency was declared. The Government had directly intervened and directed all concerned organizations to mobilize their rescue operations in Karachi. Infrastructure including roads was inundated and the stormwater entered into the homes and businesses causing huge losses. Sanitary conditions got worsened, resultantly the life of people got seriously hit losing properties and in some cases lives. The businesses were broken down and the infrastructure got a serious hit. The resumption of power and communication took many days causing losses of great magnitude. Transportation remained off-road and people stranded in their homes without power and water for days. For more than three weeks, life got standstill and the Government had to respond through NDMA/PDMAs to rescue the people.

2. POST FLOOD CONDITIONS IN KNIP TARGET AREAS

In the wake of this situation, the Governments of Pakistan/Sindh appealed for assistance and financial resources to help the city to recover from some of its losses. The World Bank also agreed to contribute to assistance and as part of that some of the resources are being channeled through Karachi Neighborhood Improvement Project (KNIP). The project carried out surveys in its target areas and identified some roads, parks, playgrounds and streets that were damaged in the rains and need restoration to provide significant relief to the citizens.

The sites that KNIP has identified in its target areas (Saddar, Malir, Korangi) have suffered some or many of the damages listed below: :

- a. Many roads and sidewalks in the area have been badly damaged due to rains and now are not fit to drive or walk on and thus peoples' mobility is badly affected.
- b. Many streetlights and medians have also been damaged in the area. .
- c. There are many blockages in sewerages and spillage of the sewage creating health hazards
- d. Stormwater drains need to be provided or strengthened for similar events that have become more likely due to weather change.
- e. As a result of the rains and based on its experience in the last couple of years, it is known, that water supply network in these areas are old, damaged and or no longer effective to serve the local communities.
- f. Rains have also exposed the issues that are related to gas pipelines and electrical, telephone, and internet cables that have not been laid properly and in such emergencies breakdown can cause serious safety hazards.

3. PROJECT DESCRIPTION

OBJECTIVE

The overall objective of this exercise is to provide immediate relief to the KNIP communities that have faced adverse impacts of the rains. Since KNIP is already working in these areas, data and resources are already available in these areas to assess, plan and implement relief activities. Nature of activities to be taken up will be similar to what the project is already doing in these areas. Following table summarizes the emergency sub-projects that are proposed to be taken up:



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LIST OF PROJECTS IDENTIFIED

S. No	Project Name	Location	Damage Assessment	Scope	Design Requirements
1	Coast Guard Chowrangi to west 2.1 KM	Coast Guard Chowrangi to west 2.1 km 32-meter wide ending at Lat 24°48'56.05"N Long 67° 7'36.58"E	<ul style="list-style-type: none"> • Pavement • Drainage • Sewerage • Water Supply • Overflowing 	<ul style="list-style-type: none"> • Road Rehab • Services Infra/utility up-gradation • Foot Paths • Pedestrian • Public spaces 	<ul style="list-style-type: none"> • Topographic survey • Socio-economic requirements • Design Report • Bid drawings • Construction drawings
2	Landhi road to South 1.25 KM	From Landhi Road to Lat 24°48'42.91"N Long 67° 8'25.36"E 1.25 Km long and 8 meters wide	Pavement Road fixtures Sewerage rehabilitation Management of merging street stormwater Solid waste removal Public space	Road rehab Improve LOS Public spaces	Topographic Socio Design Bid drawings Construction drawings
3	Saudabad Chowrangi to Urdu Chowk Bus Stop	Malir Block: Road From Saudabad Chaowrangi to Urdu Chowk Bus Stop on Liaquat Market Road 0.5 Km long and 21 meters wide	Pavement Footpath Median Street lights Road fixtures etc Sewerage Stormwater Adjacent street needing improvement	Road Retrofit Improve Level of Service (LOS) Footpaths Public Spaces Median Sewerage	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings
4	Nade Ali to south 400 meters	Malir Block Road Nade Ali from Latitude 24°53'55.50"N Long 67°12'6.47"E to 24°53'43.44"N 67°12'2.93"E 0.4 Km long, 23 meters wide	Pavement Footpath Median Street lights Road fixtures etc Sewerage Stormwater Adjacent street needing improvement	Road Retrofit Improve Level of Service (LOS) Footpaths Public Spaces Median Sewerage	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings
5	Liner Park Korangi	Korangi Linear Park total area of 25340 sq ft	<ul style="list-style-type: none"> • Leaching in the ground • Preparation of maintenance plan • Garbage control 	<ul style="list-style-type: none"> • Clean from Solid waste • Levelling, grading, and clearing • Paver and grass • Landscaping • Horticulture • Benches and child swings 	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings



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6	Korangi Football Ground	Korangi Football Ground 77590 sq ft	<ul style="list-style-type: none"> • Damages to the soil • Sewerage control measures • Final disposal of drainage 	<ul style="list-style-type: none"> • Diversion of sewage • Clearing of unwanted soil • Backfilling and levelling • External development, water supply, improvement of the soft boundary, parking, lights, seating, and power • Jogging track 	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings
7	Community Space Korangi	Korangi Open Space 50000 sq ft	The overall survey of the space including damages due to garbage	<ul style="list-style-type: none"> • Clearing from Solid waste • Grading, filling, and levelling • The soft boundary with entries from a minimum of two sides • Access improvement to access space • Walking track • Urban space • Kids swings • Horticulture • Sitting spaces • Area lights • Power supply • Strategy for maintenance and management for sustainability 	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings
8	RCD Ground Malir	Malir RCD Ground, 55400 sq ft	<ul style="list-style-type: none"> • Flooding due to low lying area • All the ground has got damages due to flooding 	<ul style="list-style-type: none"> • Management of sewage • Level raising • External development i.e. boundary, entrance, floodlights, seating spaces, parking, water supply, and drainage 	<ul style="list-style-type: none"> • Survey Topographical • Socio-economic survey • Design Bid drawings\ Construction drawings



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9	Malir Triangle Park	Triangular Open Space Malir Block 21000 sq ft	Solid waste damages and soil erosion	<ul style="list-style-type: none"> • Urban spaces • Public park • External development i.e toilets, water supply, lighting, the soft boundary with entrances for public 	<ul style="list-style-type: none"> • Survey Topographical • Socio-economic survey • Design Bid drawings\ Construction Drawings
10	N-5 to M-9 Link Road 10 KM	Razzakabad to Murad Memon Goth	<ul style="list-style-type: none"> • No road jungle clearing earth work required, • G.subbase, aggregate base course, dst, asphalt. • New proposed 80 m pre stress bridge over sukhan nadi • Repair maintainance portion jungle clearance 	<ul style="list-style-type: none"> • Road Rehab • Services Infra/utility up-gradation • Foot Paths • Pedestrian • Public spaces 	<ul style="list-style-type: none"> • Topo survey • Socio-economic requirements • Design Report • Bid drawings • Construction drawings

SADDAR AREA

S.No	Area	Damage Assessment	Scope	Design Requirements
1	Saddar Neighborhood Some roads north of Deen Muhammad Wafai Road	<ul style="list-style-type: none"> • Pavement • Drainage • Sewerage • Water Supply • Overflowing 	<ul style="list-style-type: none"> • Road Rehab • Services Infra/utility up-gradation • Foot Paths • Pedestrian • Public spaces 	<ul style="list-style-type: none"> • Topo survey • Socio-economic requirements • Design Report • Bid drawings • Construction drawings
2	Shah Rahe Liaqat Saddar	Pavement Footpath Median Road fixtures	Road rehab Improve LOS Footpath Public spaces	Topo Socio Design Bid drawings Construction drawings
3	Urdu Bazar Community Roads Saddar	Pavement Footpath Median Street lights Road fixtures etc	Road Retrofit Improve Level of Service (LOS) Footpaths Public Spaces	Topo survey Socio-economic survey Design Bid drawings\ Construction drawings

4. OBJECTIVES OF CONSULTANCY SERVICES

Architect/Engineer consultancy services (Consultant) are required for detailed review and assessment of the proposed sub-project sites including site investigation, feasibility studies, preliminary designs, social and environmental screening, resettlement action plans, and cost estimates. Once the sites are finalized, the consultant will prepare detailed architectural/engineering drawings and bidding documents. The Consultant will assist KNIP in procurement of construction contracts, evaluation of bids, contract award and management, and detailed supervision of construction for monitoring, evaluation, quality assurance, processing of payments, and, on completion, closing of contracts.



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5. SELECTION METHOD

A Consultant will be selected in accordance with the appropriate procurement method set out in World Bank’s Procurement Regulations (July 2016)

The technical proposal will be assessed based on following:

- a. The proposed work plan;
- b. Staff qualifications;
- c. Prior experience in similar assignments.

6. SCOPE OF SERVICES:

- a. Preparing monitorable time-bound implementation plans for overall project and sub-projects level and below activities’ (with start, finish, milestone dates and cost estimates). These plans will be used for monitoring planned versus actual physical and financial progress.
- b. Conducting subsoil investigations and environmental and social impact assessment for final sites.
- c. Develop on-site SOPs to assure quality, safety, environmental and social standards
- d. Preparing detailed architectural/engineering design, construction drawings
- e. Preparing and updating construction and operation related social and environmental safeguard management plans (ESMP). Assuring that bid documents include gender checklists and, as appropriate, Abbreviated Resettlement Action Plans (ARAP), if applicable, as per approved KNIP Resettlement Policy Framework (RPF).
- f. Preparing Engineer’s estimate and cost-breakups.
- g. Assisting in appropriate packaging of construction activities to improve transparency, efficiency and economy
- h. Preparing bidding documents (tenders) and assisting in evaluation of bids
- i. Assisting in award of contracts, contract management (keeping specified and required contract documents complete, updated and in files including guarantees and warranties, keeping track of planned and actual progress, monitoring compliance with all specified duties, obligations, and performance, processing variation orders and extensions, processing closing out contracts, developing and monitoring progress on ‘punch lists’ during defect liability periods, etc.)
- j. Performing detailed supervision of construction to ensure complete compliance with the drawings, technical specifications, ESMPs and various stipulations contained in the contract documents including construction contractors’ personnel’s qualifications and strengths.
- k. Developing and implementing plans for assurance of quality of construction including that related to construction contractors’ workplans, site facilities, layout of works, workmanship, materials, sampling and testing.
- l. All construction activities will be carried out by the contractors’ according to plans approved by Consultant who will also be responsible for initial acceptance of satisfactorily completed items of works and for their review and certification in and including the requests for payments by the contractors.
- m. Preparing and submitting periodic progress reports. Frequency and contents of reports will be in accordance with consultations with PIU.

PROJECT IMPLEMENTATION SCHEDULE

1. It is envisaged that the design and construction supervision phases for the above-mentioned scope shall be as follows:
- (a) Design Phase i.e. pre-construction activities: 1-3 Months

The various sub-projects will be bundled in 3 packages.

- Package 1 1 month from contract signing
- Package 2 1.5 month from contract signing
- Package 3 2 months from contract signing

- (b) Construction Phase 6-9 (Nine) Months
- (c) Post Construction Phase (Defect Liability Period) 12 Months



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2. **PROJECT STAFFING REQUIREMENTS**

An illustrative list of staff/personnel to be provided by the Consultant is given below. The list will be finalized in consultation with KNIP PIU.



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S#	<u>Design Phase</u>			<u>Construction Phase</u>		<u>Post- Construction Phase (DLP)</u>		<u>Total MM</u>
	<u>Key Staff</u>	<u>Qty</u>	<u>MM</u>	<u>Qty</u>	<u>MM</u>	<u>Qty</u>	<u>MM</u>	<u>MM</u>
1.	Team Leader/CRE							
2.	Contract Engineer							
3.	Highway Design Engineer							
4.	Structure Design Engineer							
5.	Environmental Planners							
6.	Quantity Surveyor							
7	Health Safety and Environment Engineer							
8.	Electrical Design Engineer							
9.	Architect / Designer							
10.	Traffic Engineer							
10.	Quantity Surveyor							
12.	Surveyors							
14.	CAD operators							
15	Resident Engineer							
16	Assistant Resident Engineer (Highway)							
17	Health Safety and Environment Engineer							
18	Assistant Resident Engineer (structures)							
19	Material Engineer / Material Supervisor							
20	Site Inspector (Highway)							
21	Site Inspector (Structure)							
22	Lab Technician							
23	MEP ARE							
24	Support Staff							



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25	Secretary / Office Administrator							
26	Computer Operator & Other Support Staff (Peon / Messenger)							

7. PROJECT DELIVERABLES & PAYMENT STRUCTURE

All reports documents prepared by the Consultants shall be professionally precise and objective and conforming to local and national law and rules of the specific industry. The report formats shall be finalized in consultation with the Employer. The consultants shall provide specified number of copies / sets of the following reports and / or documents to Employer, which may be varied as per requirements:

(a) DESIGN PHASE

	Copies	Time
i. Mobilization, Inception Report and Project Implementation Plan	2 Copies	2 weeks
ii. Site Survey and Investigation Report.....	2 copies	4 weeks
iii. Draft ESMP & ARAP Report	2 copies	one week
iv. Final ESMP & ARAP Report	2 copies	one week
v. Draft Design Report.....	2 copies	4 weeks
vi. Final Design Report.....	2 copies	6 weeks
vii. Tender Documents (Condition of Contracts package. Specifications, Tender Drawings and Bill of Quantities) ...	3 copies of each contract	4 weeks
viii. Engineer's Estimates.....	2 copies	2 weeks

Note: The electronic versions of all documents will be provided to Employer along with the hardcopies.

(b) CONSTRUCTION SUPERVISION PHASE

	Copies	Time
i. Monthly Progress Report.....	2 copies	Every month

(c) POST- CONSTRUCTION PHASE

i. Project Completion Report (upon completion..... of DL period with Consultants) and As built drawings	2 copies	At the end of the project
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