

**REQUEST FOR PROPOSAL (RFP)**  
**FOR**  
**FRONT END COLLECTION AND DISPOSAL OF**  
**MUNICIPAL SOLID WASTE FOR DMC MALIR**  
**(DMC MALIR AREA) & DISTRICT COUNCIL**  
**(DISTRICT COUNCIL AREA) KARACHI, SINDH –**  
**PAKISTAN**



**Executive Director (Operation-I)**  
**Sindh Solid Waste Management Board**  
**(SSWMB)**  
**Govt. of Sindh**



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## Disclaimer

Though adequate care has been taken while preparation of this document and information provided therein, but it is advised that bidder must satisfy himself for the correctness and sufficiency of the Data. Information on any discrepancy should be intimated to this office immediately. If no information is received from any of the bidders within the time of submission date, it shall be presumed that this document is correct and complete in all respects. If considered necessary in the interest of work Sindh Solid Waste Management Board (SSWMB) reserves the rights to modify, amend or supplement this document.

# **Section-I**

## **Preamble**

## Section-I

### 1.1. Purpose of Request for Proposal (RFP)

The purpose of this RFP is to invite all eligible, reputed and experienced waste management firms or individuals whether National, International or in consortiums / joint ventures in accordance with relevant provisions of PEC by-laws (wherever applicable) and SPPRA Rules and Regulations to submit their technical/operational and financial proposals for sweeping, collection/Transportation and disposal of MSW of DMC Malir & District Council Karachi Area under Single Stage Two Envelope procedure, open International competitive bidding method of Sindh Public Procurement Rules 2010 (amended 2013).

### 1.2. Scope of Work / Assignments.

1. Door to door collection of garbage & revamping of bin system.
2. Sweeping of roads, streets, lanes, footpaths, medians and open spaces and sweeping, waste collection and disposal.
3. Washing of important roads as and when required on special occasions.
4. Lifting and transportation MSW from dustbins sites & collection points to designated GTS.
5. Establishment of Scientific Monitoring and Tracking of Entire System i.e. vehicle, sanitary staff, assets etc.
6. Establishment of complaint management system.
7. Community awareness program and its implementation (as part of the main Community Awareness & Participation programme of SSWMB).

### 1.3. Brief Description of DMC Malir & District Council Karachi

District Municipal Corporation (Malir) is one of the Six DMC of Karachi City. DMC Malir comprises of the following zones:

- a) Bin Qasim Zone.
- b) Malir Zone

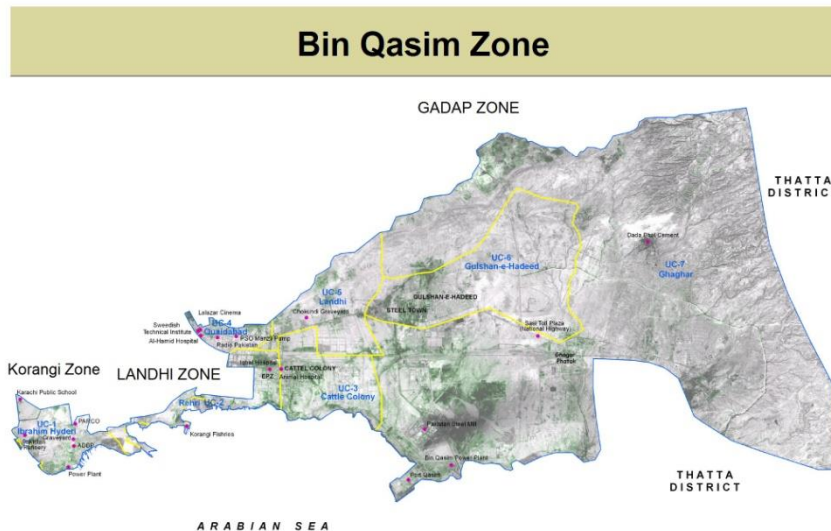
Total No of UC	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW Generation Per Day (Ton)	MSW Generation Per Year (Ton)	Existing Solid Waste Collection and Transportation Vehicles	Available Human Resources (Staff)		Details at Annexure
						Office	Field	
14	1628410	504.1	619	225935	63	147	887	1-18



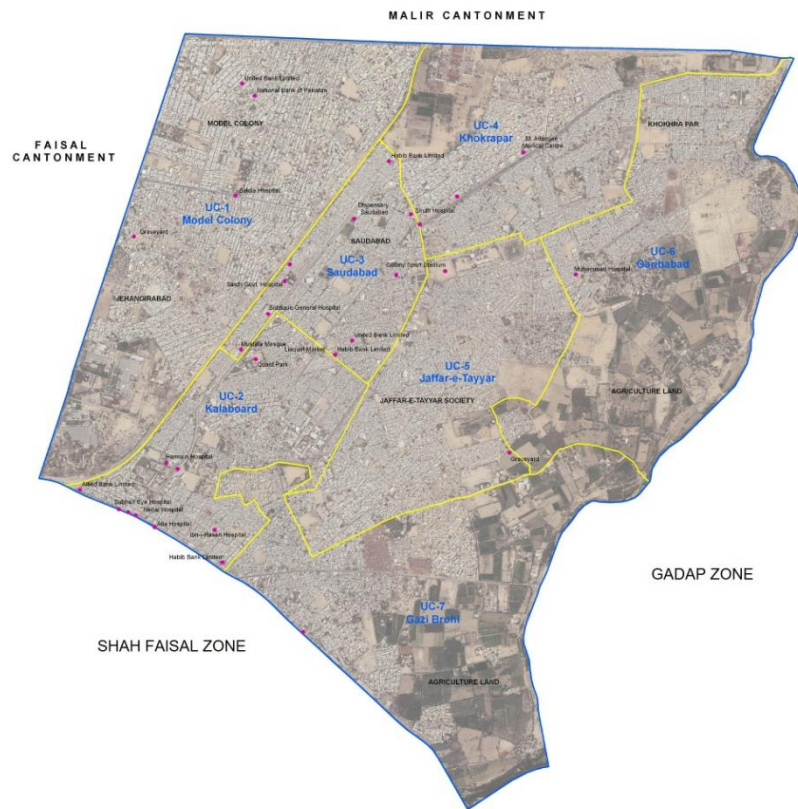
District Council Karachi mostly comprises of the area of former Gadap Zone, though it also comprises of some of the UC's of District West. However only Gadap Zone is hereby considered for description of the area of District Council Karachi. **But it is clarified that the contract is for whole area of DMC Malir and District Council Karachi without nay exception.**

Total No of UC	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW Generation Per Day (Ton)	MSW Generation Per Year (Ton)	Existing Solid Waste Collection and Transportation Vehicles	Available Human Resources (Staff)		Details at Annexure
						Office	Field	
08	659503	1979.6	264	96360	22	15	439	1-18

#### 1.4. Map of DMC Malir



## MALIR ZONE





**1.6. Definition & Interpretation**

- a. "Agreement" means agreement signed between the parties (SSWMB and Successful Bidder).
- b. "Client" means Sindh Solid Waste Management Board (SSWMB) - The Procuring Agency.
- c. "Contractor" means the bidder, any entity or person, firm, company, joint venture / consortium that may provide or provides the work and services under the agreement.
- d. "Days" mean calendar days
- e. "Years" mean calendar year
- f. "RFP" means 'Request for Proposal' prepared by the client.
- g. "Proposal" means the technical / operational proposal and financial proposal.
- h. "W&S" means the work and services to be performed by the contractor pursuant to the agreement.
- i. "Terms of Reference (TOR)" means the document in RFP, which explains the objective scope of work activities task to be performed, respective responsibilities of client and contractor and expected results and deliverables of assignments.
- j. "Bidder & Tenderer" means any person or persons, contractor, firms, consortium of firms, joint venture submitting the bid or tender.
- k. the word "Tender" is synonymous with "bid" and the work tender document with bidding document and proposal document / RFP document.
- l. "contract price" means the sum stated in the letter of Acceptance/Award as payable to the contractor for execution, performance and completion of works and services according to the scope of work
- m. "Client representative" means any representative of client appointed from time to time.
- n. "work (s)" means all services to be provided and work to be done by the contractor under the contract.

**1.7. Abbreviations**

- a) DMC = District Municipal Corporation
- b) DCK = District Council Karachi
- c) EOBI = Employees Old Age Benefits Institution
- d) EPA = Environmental Protection Agency
- e) MSW = Municipal Solid Waste
- f) PA = Procuring Agency i.e. Sindh Solid Waste Management Board
- g) SPPRA = Sindh Public Procurement Regulatory Authority
- h) SSWMB = Sindh Solid Waste Management Board
- i) SWM = Solid Waste Management
- j) UCs = Union Councils
- k) \$ = US-Dollars – Currency of United State of America.

**1.8. Sections of RFP/Bidding Documents**

All Section of RFP and Annexure, Forms and Addendum(s), if any, are integral part of RFP and considered as tender / bidding documents.

**1.9. Procuring Agency Rights to cancel any or all proposal / tender.**

The SSWMB is not bound to accept any proposal and reserves the right to annual the selection process at any time prior to agreement / award of the contract without thereby incurring any liability to the bidder. The applicant will not be entitled to make any claim from Procuring Agency due to cancellation of the tender.

## **Section II**

### **Instructions to Contractor/Bidder**

## **Section II**

### **Instructions to Contractor/Bidder**

#### **2.1. Information Related to Procuring Agency**

Name : Sindh Solid Waste Management Board.  
Address : Bungalow No.D-47, Block-2, Clifton, Karachi, Pakistan.  
Phone No. : +92 21 35372982-4 and +92 21 3586 3026  
Fax No. : +92 21 35372985  
e-mail : [info@sswmb.gos.pk](mailto:info@sswmb.gos.pk)  
Website : [www.sswmb.gos.pk](http://www.sswmb.gos.pk)

#### **2.2. Language of Proposal and Correspondence**

All documents/ proposal and respective correspondence shall be made / prepared in English Language.

#### **2.3. Method of Procurement.**

Single Stage Two Envelope method - International competitive bidding under Sindh Public Procurement Rules 2010 (Amended 2013).

#### **2.4. Period of Contract.**

Seven (07) Years after issuance of Work Order, extendable for further Three (03) Years based on mutual written consent of the contractor and the client which shall be on the basis of satisfactory performance of the contractor and on same terms and conditions.

#### **2.5. Pre-Proposal Meeting/Pre-Bid Meeting**

***Pre-proposal meeting will be held on 18<sup>th</sup> February 2016 at 1500 hours in the Committee Room of SSWMB.***

#### **2.6. Clarification, Modification of Bidding Document**

Contractor/bidder may request a clarification of RFP Documents not later than 07 days before the proposal submission date. Any request for clarification must be sent in writing to the Procuring Agency's address. The procuring agency will respond in writing including explanation to the queries to all bidders/contractors. Should the procuring agency deem it necessary to amend the RFP as a result of a clarification, it shall be done according to the concerned clause(s) mentioned in this section.

## **2.7. Visit of the Area of Service/site visit.**

- a. The bidder are advised to visit the area of service/site of works and its surroundings and obtained all informations that may necessary for preparing their proposal/bid, and to acquaint themselves with the area, the existing system, the vehicles, offices, workshops and workforce of the existing system of Solid Waste Management of District (Malir) & District Council Karachi, however the contractor/bidder can do so at their own expenses.
- b. The bidders and any of their personnel or agents will be granted permission by the procuring agency to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the procuring agency, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.
- c. All the interested firms/bidders are advised to carry out a comprehensive survey of the Zones of the project area and come up with a very practicable strategy and project proposal in order to minimize complications during implementation.

## **2.8. Utilization of Existing Workforce on SWM of DMC Malir & District Council Karachi Area (mandatory)**

- a) It is mandatory upon the contractor/bidder to utilize the transferred staff out of the existing SWM workforce of DMC Malir & District Council Karachi under this contract. The proposal must include the utilization plan for existing workforce.
- b) Zone wise detailed of staff, their grade wise salaries and cadre of service are given in Annexures. However, it should be clear that around 1000 employees (plus minus 10%) shall be transferred on detailment basis to the contractor. The approximate salary paid to them by the DMC (Malir) & District Council Karachi would be around Pak Rs.300 million. The bidder must keep this in mind and must separately give a proportionate discount in the Tipping Fee proposed.
- c) If need arises, the procuring agency, at its discretion, may ask the contractor to take up services of more than 1000 employees out of the existing workforce of sanitation/SWM Department of DMC Malir & District Council Karachi. In this case salaries of these additional employees shall be payable by the contractor and shall be deducted/adjusted from monthly bill of the contractor.
- d) The Contractor/bidder however may be allowed to select the workforce (Field & Office Staff) on the basis of fitness and willingness basis.



- e) The workforce will be provided to the contractor/bidder on detailment basis by the procuring agency for the period of contract.
- f) The contractor/bidder will pay 25% (Twenty Five Percent) detailment allowance on their running basic pay directly to the workforce provided to the contractor on the basis of their performance.
- g) The detailment allowance must be paid to each individual through his or her bank account only and not through open cheque, cross cheque or in the form of cash amount. The details of such allowance so paid must be provided to the procuring agency mentioning the Name, Father's/Husband's Name, Employee No., Amount of allowance and his/her performance at the work.
- h) The Detailment allowance shall be calculated on the basis of Running Basic Salary of the individual worker provided to contractor.
- i) The contractor will provide 48 Nos. of soaps and 24 Nos. of dusters per year to the individual workforce of grade 01 to 07 against an acknowledgement receipt, copy of which to be provided to the procuring agency.
- j) Casual Leave as admissible under the Sindh Local Council Leave Rules will be granted to the individuals on the request in writing by any individual workforce. Details of the same shall be provided to the procuring agency in writing.
- k) The contractor/bidder shall pay one honorarium of Rs.1,500/- to the individual of workforce of grade 01 & 02 of service cadre of Sanitary Workers, Muqaddam and Motor Coolie and one honorarium of Rs.2,000/- to the individual workforce of grade 05 to 07 of service cadre i.e. Drivers and Heavy Drivers. The honorarium is to be paid on the occasion of Eid-ul- Azha.
- l) A committee will be constituted by SSWMB comprising of the officers of SSWMB, concerned DMC / DCK and nominated persons of successful bidder for the purpose of redressal of any dispute that arise between contractor/bidder and the workforce.
- m) The cases of Earned Leave or Medical Leave requested by any individual of workforce must be sent immediately to the committee or authorized officer for necessary action. The committee or authorized officer will decide that either detailment of such individual is cancelled or the leave is granted as per the Sindh Local Council Leave Rules. The decision of the committee shall be final and conclusive.
- n) The Contractor may reject any or some individual workforce, if contractor considers that they are unwilling to work with the contractor or if not satisfied with their performance. In case that workforce made available to contractor carries out strikes contrary to law, the contractor

shall immediately inform the procuring agency of this act of misconduct by the workforce. The committee formulated by the SSWMB for the purpose to resolve issues of workforce will take appropriate action in this regard and the decision of the committee shall be conclusive and binding to the workforce and the contractor.

- o) The lien of workforce so provided to the contractor on detailment shall however remain with the Parent Department or Procuring agency.
- p) The contractor must account for the costs incurred on the benefits and allowances of the workforce provided to the contractor in their financial proposal/bid cost in the manner described under the contract document or as decided by the Procuring agency before the final agreement.
- q) The contractor shall recruit and provide staff and workers in addition to the workforce of DMC Malir & District Council Karachi, to fulfil the requirements to take up the scope of work satisfactory as mentioned in the contract/RFP Document.
- r) For further detail regarding utilization of existing workforce of DMC Malir & District Council Karachi reference be made to technical specification of RFP document alternatively the prospective bidder may contact SSWMB for clarification.

## **2.9. Utilization of Existing Solid Waste Collection and Transportation Vehicles of DMC Malir & District Council Karachi - (Optional).**

- i. The Contractor may inspect the existing fleet that DMC West can spare and decide to take over but these old vehicles of DMC must not be more than 20% vehicles of the new fleet that the contractor is supposed to bring in.
- ii. A Joint Committee will assess the value of the vehicles and that amount will be then recovered in equal installments during first three years of the contract and adjusted from the monthly bill of the tipping fees.
- iii. In addition to these 20% vehicles from DMC (Malir) & District Council Karachi, the contractor may acquire 10% of the total vehicles on lease but all vehicles must be revamped and improved in an environment friendly manner by the contractor on his own expense.
- iv. The contractor / bidder will however ensure balance 70% of the fleet of vehicles for new standard solid waste machinery purchased and owned by the contractor in view of the requirement as suggested in this document.

## **2.10. Utilization of Existing Facilities i.e. Workshop, Offices of DMC Malir & District Council Karachi**

The contractor may utilize existing offices in the area of respective UCs of the Zone and the central workshop of DMC Malir & District Council Karachi, however this facility shall be provided to the contractor on the basis and such terms and conditions as defined and set out in the contract agreement

The contractor will responsible to keep these offices, workshop hander over to them in neat, clean and well-maintained conditions throughout the contract period.

No major addition, alteration in existing structure shall be allowed. The contractor shall be responsible for the payments of all utility bills in respect of these offices and workshop on due dates and a copy of the same shall be submitted to procuring agency.

Area, Location of workshop and offices is mentioned in the annexures.

## **2.11. Amendments through Addendums**

At any time, before submission of proposal the procuring agency may amend the RFP by issuing an addendum in writing. The addendum shall be sent to all contractors / bidders who attended pre-bid meeting or conveyed their interest in participation in the tender and shall be binding on them. The addendum shall also be uploaded on the SSWMB and SPPRA websites. The contractors shall acknowledge receipt of all addendums issued by the procuring agency. To give reasonable time to contractors to take into account these amendments in their proposal, the SSWMB may, if the amendment is substantial, extend the deadline for submission of proposal. Amendments so made shall be binding on the bidders and shall be part of this document.

## **2.12. Cancellation of Tender before Tender Time**

If any matter is found in the tender document, which is not possible to be corrected, or in case where procuring agency considers it necessary, the tender may be cancelled before last hours of submission of the tender. If tender is cancelled all submitted tender documents shall be deemed to be rejected and returned to the contractors without being opened. The bidder/contractor will not be entitled to make any claim from procuring agency due to cancellation of tender.

## **2.13. Proposal Preparation /Cost of Bidding.**

The bidders shall bear all costs associated with the preparation and submission of their respective proposals/bids, and the procuring agency will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

## **2.14. Bid submitted by a Joint Venture/Consortium.**

Bids submitted by a joint venture/consortium of two (2) or more firms shall comply with the following requirements:

- (a) one of the joint venture/consortium partners, lead firm shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture/consortium partners/firms;
- (b) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by the authorized partner so as to be legally binding on all partners/firms;
- (c) the firm/partner-in-charge shall always be duly authorized to deal with the procuring agency regarding all matters related with and/or incidental to the execution of works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture/consortium;
- (d) all partners of the joint venture/consortium shall at all times and under all circumstances be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (a) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid);
- (e) a copy of the agreement entered into by the joint venture/consortium partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the contract and can give valid receipts on behalf of the joint venture/consortium, the proportionate participation of the several firms forming the joint venture/consortium, and any other information necessary to permit a full appraisal of its functioning. No amendments / modifications whatsoever in the joint venture/consortium agreement shall be agreed to between the joint venture/consortium partners without prior written consent of the procuring agency;
- (f) Submission of an alternative Letter of Intent to execute a Joint Venture/consortium Agreement shall be mandatory.
- (g) Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the bidders' proposal to meet the technical specifications and the timely completion as per schedule each day, each month and every year of the contract till completion of the contract successfully

## 2.15. Place, Date, Time and Manner of Submission of Tender/Bid Document/RFP

- i) The bidder/contractors are required to submit their proposal/bid at the office of Sindh Solid Waste Management Board not later than 30<sup>th</sup> March 2016 at 1430 hours (Local Time).
- ii) The Contractors/bidders must submit their proposal/bid under **Single Stage Two Envelope Procedure** of SPP Rules 2010 (amended 2013). Proposal Bid shall comprise a single package containing two separate sealed envelopes. Each Envelope shall contain separately the Technical/operational proposal and the financial proposal.
- iii) Envelopes (inner) shall be marked as Technical/Operation proposal and Financial Proposal in bold and eligible letters.
- iv) The package (Outer Envelope) containing both envelopes shall be marked as proposal for Front End Collection and Disposal of Municipal Solid Waste for DMC Malir & District Council Karachi, Karachi Division in Bold and legible letters.
- v) The package (outer envelope) shall also be marked the submission address of the Proposal/Bid and Name, Address of Contractor/Bidder.
- vi) The Package (Outer Envelope) shall be sealed, signed and stamped by the contractor or its authorized representative.
- vii) Submitted tender shall not be retrieved or changed for any reason whatsoever.
- viii) Proposal/Bid shall be submitted by hand or may be sent by registered airmail post. Proposals/ bids that are not submitted until due date and time of the submission of proposals/bid will not be considered.
- ix) Where delivery of bid is made by registered mail and the contractor/bidder desired to receive an acknowledgement of receipt of such bid, he shall make a request for such acknowledgement in a separate letter attached to the package (outer envelope) but will not be a part of sealed envelope.
- x) Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by representative.
- xi) Bid submitted through telegraph, telex, fax or e-mail will not be considered.

- xii) **Each page of the ORIGINAL proposal / bid document HAVING ORIGINAL STAMP OF SSWMB must be signed by the contractor/bidder. In case the proposal/bid document is signed by the authorized representative of the contractor then, the authorization shall be in the form of written power of a attorney accompanying the proposal or in any other form demonstrating that the representative has been duly authorized to sign.**
- xiii) The procuring agency at his discretion, may extend the deadline for submission of bids/proposals by issuing an addendum notified in newspaper and / or SSWMB & SPPRA websites. All rights and obligations of procuring agency and the contractor will thereafter be subject to the deadline as extended.
- xiv) The Technical/operational proposal shall not include any financial information. A Technical proposal containing financial information may be declared non responsive.

The technical proposal shall provide the information as indicated in the following Para.

- a) A brief introduction of contractor's organization and an outline of recent experience of contractor (each partner in case of joint venture) on assignments of similar nature.
- b) A description of the approach and methodology for performing the assignment covering the following subject, technical approach, methodology, organization and staffing.
- c) The list of the proposed professional, staff team by area of expertise, the position that would be assigned to each staff members and their tasks.
- d) While preparing the technical proposal, contractor must give particular attention to the following:
  - If the contractor considers that it may enhance its expertise for technical operational management and monitoring parts for the assignment to accomplish in a best-suited way and in accordance to the requirement of RFP Document he may associate with other contractors/firms (not more than 30% of the job). Any such association must be clearly indicated in the technical proposal. In case of joint venture, all partners shall be jointly and severally liable, and shall indicate the lead firm of joint venture.
- e) Alternative professional staff shall not be proposed and only one curriculum vitae (CV) may be submitted for each position.

- f) Comments and suggestions may be given on the terms of reference including workable suggestions that could improve the quality, effectiveness of assignments and on requirement of the DMC (Malir) & District Council Karachi workforce, machinery and facilities including administrative support, office, workshop and rehabilitation of scavengers and any other. However client is not bound to consider the suggestions as a whole or part or otherwise as indicated in RFP Document.
- xv) The financial proposal shall include all cost
  - a) Associated with scope and performance of work, management and operational cost, remuneration for staff monitoring system and other incidental charges, business taxes, income tax, local & provincial taxes, professional taxes, duties, fees, that may be levied according to the laws and regulations in being prior to the closing date of submission of proposal and taxes and fees on the equipment, and machinery required and on services performed under this contract. Nothing in the contract shall relieve the contractor/bidder from his responsibilities to pay taxes that may be levied on the profit made to him in respect to contract.
  - b) The financial proposal shall contain NO OVERWRITING, CORRECTIONS and CUTTINGS. The contractor or his authorized representative who signed the proposal must initial such corrections, overwriting and cuttings, if any.
  - c) The contractor/bidder is required to quote the cost of every work item and total cost of works correctly in figure and words. The price and cost of works and services under this contract must be expressed in US Dollars (\$).
  - d) Bid Security equal to 1% (one percent) of total bid amount in the shape described in clause 2.24 will be attached with financial proposal. No Cheque or Insurance Guarantee shall be accepted as bid security.
  - e) All the costs towards allowances of the workforce transferred by procuring agency to the contractor shall be incorporated in the financial proposal.

## **2.16. Currency Unit of Offers and Payments**

The bidder shall quote the bid price for each work, item (Services) and the total bid amount in US Dollar (\$). The interim/running monthly bill payment will be made to contractor in Pakistani Currency at the conversion/exchange rate declared by the State Bank of Pakistan on the date of submission of interim/running monthly bills.

For the conversion of total bid amount and the amount of the each item of work & services given in BOQ, the rate of exchange shall be the exchange rate declared/notified by State Bank of Pakistan prevailing 28 (Twenty Eight) days before the date of opening of the bid specified in bidding document.

## **2.17. Conditional and Partial Offers**

Contractors / bidders are hereby cautioned that proposal with conditional offers or deviation from the conditions and instructions contained in RFP Document or other requirement stipulated therein shall result in rejection of proposal /bid as non-responsive and shall not be considered. Partial offers are not acceptable under this contract. Acceptance shall only be granted for complete job.

## **2.18. Alternative Proposal not Acceptable. One Bid per Bidder**

Only one proposal fulfilling all conditions, instructions and requirement contained in RFP should be submitted by each bidder. Alternative proposal shall not be entertained.

Each bidder shall submit only one bid either by himself, or as a partner in a joint venture/consortium. A bidder who submits or participates in more than one bid will be disqualified.

## **2.19. Eligible Bidder.**

This Invitation for Bids is open to all interested bidders who are eligible under provisions of Sindh Public Procurement Rules as mentioned (but not restricted) below and the criteria given in the Notice Inviting Tender (NIT) / Bidding Document.

Firms and individuals, national or international, may be allowed to bid for the work. Any conditions for participation shall be limited to those that are essential to ensure the bidders' capability to fulfil the contract in question.

- (a) Bidders may be excluded if;
  - (i) As a matter of law or official regulations, commercial relations are prohibited with the bidder's country by the federal government, or
  - (ii) A firm is blacklisted/ debarred by the procuring agency and the matter has been reported to the Authority, subject to Rule 30 of Sindh Public Procurement Rules 2010.
- (b) The national Bidders must be:
  - (i) This is a 'Service Contract' hence registration with PEC is not required.
  - (ii) Registered with relevant tax authorities (income / sales tax, Sindh Board of Revenue wherever applicable)



- (c) The international bidders can participate and if they are successful, they will be given appropriate time to get them registered with relevant tax authorities in Pakistan before signing of the Agreement.
- (d) Government-owned enterprises or institutions may participate only if they can establish that they are;
  - (i) Legally and financially autonomous, and
  - (ii) Operate under commercial law.

Provided that where government-owned universities or research centers in the country are of a unique and exceptional nature, and their participation is critical to project implementation, they may be allowed to participate; and

- (iii) Bidders shall include all those contractors who are registered or incorporated in Pakistan, irrespective of the nationality of their owners and professional staff.

## **2.20. Disqualification for Participating in Tender**

Following contractors or sub-contractors cannot participate in the tender in any manner directly or indirectly, in their name or in the name of any other person or firm:

- a. Those who are prohibited to participate in tender by any Govt. institution, authority and those who are prohibited by the law due to having any criminal record or conviction.
- b. Those who have been declared bankrupt by the authorities or have filed bankruptcy.
- c. Those who have been declared or announced as insolvent by court of law or tribunal or any other authority or institution.
- d. Those who are under liquidation.
- e. Those whose affairs are run by any tribunals.
- f. Those who are under settlement with any financial institution or creditors.
- g. Those who have suspended their affairs or those who are in similar position as per the law of their country.
- h. Those who have been declared defaulter of social security contribution or premium payments under the law of Pakistan or as per law of their country.
- i. Those who have been declared defaulter of taxation or revenue department for non-payment of income tax, sales tax, customs

duties, or any other tax levied from time to time in Pakistan or as per law of their country.

- j. Those who have been condemned by decision of any court or law or tribunal because of their non-professional or unethical activities or professional malpractices.
- k. Those who have been determined by any institution or organization or authority or agency for adopting or performing non-professional attitude or unethical or immoral activities or professional malpractices and such determination resulted from administering them during their jobs.
- l. Those who do not provide the required information or provided misleading or false representation or deliberately suppressed the information to be provided as required in RFP Document.
- m. Those who have been prohibited from professional activity by the Chamber of Commerce in Pakistan or any other equivalent body established for same purpose in the country where they are registered before the date of submission of the bid.
- n. The contractors/bidders who are the blacklisted by Federal Govt., Provincial Govt., Autonomous Bodies and State Bank of Pakistan.

## **2.21. Exclusion Prohibition and Acts forbidden**

The contractor/bidder shall be excluded from participating in tender under following circumstances:

- a. Those who are authorized by procuring agency in any way for preparation of RFP and the committees set out by the procuring agency in this regard.
- b. Those who are authorized by the procuring agency to finalize and to approve the tender process.
- c. The institutions established, with whatsoever reason, in relation with the procuring agency or existing structure of the procuring agency and institution such as foundation, association, union and the companies associated with the procuring agency.
- d. Those firms and companies who are rendering the advisory or consultancy services in preparation of RFP Document.
- e. The following acts and attitude are forbidden in the tender:
  - i. To render the activities of other participants doubtful, to obscure them from participation in the tender or to offer an agreement to the participant or to influence them to act in a manner, which will affect other participant or tender process

- ii. The act and attitude towards fraud, threat, influence, bribery or by any other way to win the tender.
- iii. To issue and use false documents regarding Bid Security or Performance Security etc.
- iv. More than one offer in the tender directly or indirectly in the name of themselves or in the name of others, as in person or in mandate.

The Contractor who participates in spite of these disqualification, prohibitions and exclusions shall stand excluded and his bid security shall be forfeited.

## **2.22. Subcontracting and Responsibilities**

Bidders/contractors may execute subcontracts for services up to 30% (Thirty Percent) of the total services for each job of solid waste management collection/transportation, door to door collection, manual and mechanical sweeping and mechanical washing and other services which are covered under this RFP Document, subject to approval of SSWMB. The contractor/bidder is responsible for performance of subcontractors to the procuring agency.

## **2.23. Bid Validity.**

Validity period of proposal / bid is 120 (One Hundred and twenty) calendar days following the last date of submission of RFP/Bid Document. Bidder/Contractor may be requested to extend the validity period in writing, and consent of the bidder shall be obtained. If applicants do not agree in such extension bid security of the applicant will be returned.

## **2.24. Bid Security.**

The bidders are required to furnish a bid security equal to 1% (One percent) of total bid amount in the currency in which the bid is priced/quoted, which shall remain valid for a period of 28 (twenty eight) days beyond the validity period of the bid.

The proposal must be accompanied with a bid security equal to 1% (one percent) of the contract price in the currency in which the bids is priced/quoted in the form of bank draft / payorder or in the shape of bank guarantee from any scheduled bank of Pakistan in favour of SSWMB.

## **2.25. Responsiveness of Bid to Bidding Document/RFP**

In preparing their proposals contractors are expected to examine in detail the document comprising the RFP. Material deficiencies in providing the

information requested in the RFP document may result in rejection of a proposal as non-responsive.

Prior to detailed evaluation of Bid the procuring agency will determine the substantial responsiveness of the bid to bidding document. A substantially responsive bid is one, which conforms to all the conditions of bidding document without material deviation.

A material deviation is one:

- i) Which affects in any substantial way the scope, quality or performance of works and services.
- ii) Which is inconsistent with bidding document/RFP and limits in any substantial way, procuring agency's rights or the obligation of the contractor/bidder under the scope of work or restriction/adoption of such conditions that would effect unfairly the competitive position of the bidder presenting substantially responsive bid.

## **2.26. Examination of Bids and Determination of Responsiveness.**

- a. Prior to the detailed evaluation of bids, the procuring agency will determine whether the bidder fulfils all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfil any of these conditions, it shall not be evaluated further.

Note: The international bidders can participate and when they are successful, they will be given appropriate time to get them registered with relevant tax / professional authorities in Pakistan before signing of the Agreement.

- b. Once found to be fulfilling the eligibility criteria, as mentioned in sub-clause a. and in clause 2.19, the bids of eligible bidders will be evaluated for technical responsiveness as per specification and criteria given in the bidding documents. Technical and financial evaluation shall be carried out in accordance with, single stage-two envelope bidding procedure of SPP Rules 2010.
- c. A bid will be considered technically responsive if it (i) has been properly signed; (ii) is accompanied by the required bid security in the manner described in the bid document; and (iii) conforms to all the terms, conditions and specifications of the bidding documents, without material deviation or reservation.
- d. If a bid has major deviations to the commercial requirements and technical specifications it will be considered technically non-responsive. As a general rule, major deviations are those that if accepted, would not fulfil the purpose for which the bid is requested, or would prevent a fair comparison or affect the ranking of the bids that are compliant with the bidding documents.

**(A). Major (material) Deviations shall also include:-**

- (i) has been not properly signed;
- (ii) is not accompanied by the bid security of required amount and manner;
- (iii) failing to respond to specifications;
- (iv) failing to comply with Milestones/Critical dates provided in Bidding Documents;
- (v) sub-contracting contrary to the Conditions of Contract specified in Bidding Documents;
- (vi) refusing to bear important responsibilities and liabilities allocated in the Bidding Documents, such as performance guarantees and insurance coverage;
- (vii) taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;
- (viii) which affect in any substantial way the scope, quality or performance of the works;
- (ix) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- (x) which affects in any substantial way the scope, quality or performance of the works;
- (xi) which limits in any substantial way, inconsistent with the bidding documents, the procuring agency's rights or the bidder's obligations under the contract;
- (xii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

**(B) Minor Deviations**

Bids that offer deviations acceptable to the Procuring Agency and which can be assigned a monetary value may be considered substantially responsive at least as to the issue of fairness. This value would, however, be added as an adjustment for evaluation purpose only during the detailed evaluation process.

If a bid is not substantially responsive, it will be rejected by the procuring agency, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

**2.27. Return of Bid Security.**

- a. The bid security of the contractor / bidder who is awarded the work shall be retained and the bid security of other bidders shall be returned (in the shape it is deposited) after award to successful bidder.
- b. Bid security of the successful bidder (to whom the contract is awarded) will be returned upon submission of performance security (in the shape it is deposited).

## 2.28. Forfeiture of Bid Security

The bid security may be forfeited

- a. If the contractor/bidder withdraws his bid during the period of bid validity.
- b. If the contractor/bidders does not accept the correction of his bid price.
- c. If the successful bidders fails
  - a. To furnish required performance security
  - b. To sign the agreement

## 2.29. Proposal/Offer to be non-responsive without bid security

Proposal/offers, which are not accompanied with required amount of bid security in the shape noted above will be rejected as non-responsive.

## 2.30. Evaluation Criteria

Criteria, sub-criteria and point system for evaluation of technical proposal are as under:

<b>1.</b>	<b>Company Profile</b>	<b>Marks</b>
1.1	Number of Similar assignment /work completed by contractor during last five years	5
1.2	Value of Similar Assignment/works	10
1.3	Value and Numbers of appropriate Solid Waste Machinery owned by the company	10
1.4	Organization Structure/Relevant Experience of the firm	5
1.5	Networth (Financial) of the contractor including bank financing not less than one billion rupees.	10
	<b>Sub Total</b>	<b>40</b>
<b>2</b>	<b>Technical/Operational approach &amp; Methodology.</b>	<b>Marks</b>
2.1	Approach & Methodology for the works & services	10
2.2	Responsiveness to RFP	10
2.3	Goal Oriented Work Plan	15
	<b>Sub Total</b>	<b>35</b>
<b>3</b>	<b>Technical/Operational &amp; Operational Team</b>	<b>Marks</b>
3.1	Education & Qualification	10
3.2	Relevant background	10
3.3	Time expend with the contractor	5
	<b>Sub Total</b>	<b>25</b>
	<b>Grand Total</b>	<b>100</b>
<b>The Minimum Technical Score to qualify is 75 Marks</b>		

- NOTE: a. BIDDERS MUST SUBMIT THEIR BIDS ON THE ORIGINAL RFP DOCUMENTS (WITH STAMP OF SSWMB ON EACH PAGE) OBTAINED FROM THE OFFICE OF SSWMB ON PAYMENT OF PRESCRIBED TENDER FEE AND ALSO PUT SIGNATURE OF AUTHORISED PERSON ON EACH AND EVERY PAGE.
- b. IN CASE THE BIDDER HAS DOWNLOADED THE DOCUMENTS FROM SPPRA OR SSWMB WEBSITE, HE MUST PUT SIGNATURE OF AUTHORISED PERSON ON EACH AND EVERY PAGE AND ALSO ATTACH PROOF OF PAYMENT OF PRESCRIBED TENDER FEE.

BIDS NOT COMPLYING WITH CONDITIONS MENTIONED ABOVE SHALL NOT BE EVALUATED.

## **2.31. Manner Place, Date and Time of Opening of Bid**

- a. The proposal/bid will be opened **on 30<sup>th</sup> March 2016 at 1530 hours** by the Tender Opening / Procurement Committee at the office of Sindh Solid Waste Management Board.
- b. Initially, only the envelope marked "Technical/Operational Proposal" shall be opened.
- c. The enveloped marked "Financial Proposal" shall be retained in the custody of the client without being opened
- d. The evaluation committee of the procuring agency shall evaluate the technical/operational proposals on the basis of their responsiveness to RFP, applying the evaluation criteria, sub-criteria and point system specified in RFP Document without reference to the price. Any proposal which is found non responsive shall be rejected at this stage and particularly if the proposal fails to achieve the minimum technical score indicated in RFP document. No amendment in technical proposal shall be permitted during technical evaluation.
- e. After the technical evaluation is completed, the procuring agency shall inform the contractor/bidders, the technical scores obtained by their technical proposals and shall notify those contractor/bidder whose proposal did not meet the minimum qualifying marks or work considered non responsive to the RFP and their proposal will be returned unopened after completing the selection process.
- f. The procuring agency shall simultaneously notify in writing to the contractor, that have secured the minimum qualifying marks, the date, time and location for opening of financial proposals.
- g. The financial proposals shall be opened publically in the presence of contractors or their representatives who choose to attend.
- h. Rectification of arithmetical errors will be made on the basis that if there is discrepancy found between the unit price and total price, that is obtained by multiplying the unit price and the quantity, the unit price shall prevail and the total price shall be corrected accordingly.
- i. If there is the discrepancy found between words and figure, the amount in words shall prevail.

## **2.32. Preliminary Examinations and Determination of Responsiveness of Bid prior to detailed evaluation of Bid**

1. The client (Procuring Agency) shall examine the bid whether:
  - a. The bid is complete and does not deviate from the scope of work for any computational error.

- b. That required securities are furnished.
  - c. The documents have been properly signed.
  - d. That the bid is valid till the required period.
  - e. That bid does not deviate from basic technical requirement.
  - f. That the bids are generally in order.
2. The Tender Proposal shall be rejected and not considered:
- a. If proof of payment of Tender Fee is not available.
  - b. If it is not accompanied by the required Bid Security.
  - c. If the Bid is not submitted on the original RFP document obtained from SSWMB office. Even if the documents have been downloaded from website, each page must be signed by the bidder and contain stamp of the firm / company / bidder.
  - d. If its validity is less than specified period.
  - e. If it is submitted for incomplete scope of work.
  - f. If it is conditional and contained alternative proposals.
  - g. If it indicates that bid price not inclusive the amount of all taxes, incidental charges.
  - h. If not accompanied with bid security
  - i. If bidder has submitted more than one bids.
  - j. If received after the deadline for submission of bid.
  - k. If submitted through Fax, Telex, Telegram or e-mail.

### **2.33. Clarification of Bid.**

In examination, evaluation and comparison of bids the procuring agency may at its discretion ask the contractor/bidder for clarification of his bid. The request for clarification and response shall be in writing and no change in price or substance of bid shall be sought, offered or permitted. No bidder shall be allowed to alter or modify his bid after the expiry of deadline for the receipt of the bid.



## **2.34. Correction of Errors before Financial Evaluation.**

- I) Bids determined to be substantially responsive will be checked by the procuring agency for any arithmetic errors. Errors will be corrected by the procuring agency as follows:
  - a. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
  - b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the procuring agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- II) The amount stated in the Form of Bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and with the concurrence of the bidders. The amount thus corrected shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected, and the bid security shall be forfeited in accordance with clause 2.28 hereof.

## **2.35. Financial Evaluation and comparison of Bids**

- i. The procuring agency will evaluate and compare only the Bids determined to be substantially responsive in accordance with clause 2.26.
- ii. In evaluating the Bids, the procuring agency will determine for each bid the evaluated bid price by adjusting the bid price as follows:
  - (a) making any correction for errors pursuant to clause 2.34;
  - (b) making an appropriate adjustment for any other acceptable variation or deviation.
- iii. The estimated effect of the price adjustment provisions of the conditions of contract, applied over the period of execution of the contract, shall not be taken into account in bid evaluation.
- iv. If the bid of the successful bidder is seriously unbalanced in relation to the procuring agency's estimate of the cost of work to be performed under the contract, the procuring agency may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the methods of performing the work and schedule proposed. After evaluation of the price analyses, the procuring agency may require that the amount of the Performance Security set forth in clause 2.36 be increased at the expense of the successful bidder to a level sufficient to protect the procuring agency against financial loss in the event of default of the successful bidder under the contract

Note: The bidders are required to provide component wise break up of his price. The Procuring Agency shall carry out 'Financial Analysis' of the 'Financial Proposals' (Bids) received. The lowest evaluated bid shall be determined on the basis of total amount of money which procuring agency shall have to pay in a year for the job on per Ton basis and not individual components.

## **2.36. Performance Security**

- a. The successful bidder shall furnish to the procuring agency a Performance Security in the form of pay order or bank guarantee from any scheduled bank of Pakistan, and the amount stipulated in the bidding data and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance, but 07 days prior to expiry date of bid security.
- b. Failure of the successful bidder to comply with the requirements of Sub-clause a. or clauses 2.37 or 2.40 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.
- c. Validity of performance security shall extend at least seven months beyond the date of completion of contract, or as mentioned in the bidding data to cover defects liability period or maintenance period subject to final acceptance by the procuring agency.

## **2.37. Signing of Contract Agreement.**

- 1) Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the procuring agency will send the successful bidder the Contract Agreement.
- 2) The formal Agreement between the procuring agency and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the procuring agency.
- 3) A procurement contract shall come into force when the procuring agency requires signs contract, the date on which the signatures of both the procuring agency and the successful bidder are affixed to the written contract.

## **2.38. Stamp Duty**

The formal Agreement between the client (Procuring Agency) and the successful bidder shall be duly stamped at rate of 0.3% of sanctioned price (or rates prescribed by the government at that time) and as stated in Letter of Acceptance. The successful bidder will pay the stamp duty.

## **2.39. General Performance of the bidders**

Procuring agency may in case of consistent poor performance of the contractor and his failure to remedy the underperforming contract may take

such action as may be deemed appropriate under the circumstances of the case including the rescinding the contract and/or black listing of such contractor and debarring him from participation in future bidding process.

**2.40. Integrity Pact**

The bidder shall sign and stamp the Integrity Pact provided at Annexure-17 to the bidding documents. Failure to provide such Integrity Pact shall make the bidder non-responsive

**2.41. Defect Liability Period**

Defect liability period shall be 06 (six) months after the date of completion and expiry of the contract agreement.

**2.42. Return of Performance Security**

The performance security of the contractor shall be returned after 06 (six) months (defect liability period) of completion and expiry of the contract period, upon determination that the obligation under the contract have been duly fulfilled in accordance with the provisions of contract document and agreement and the contractor has no liability to the procuring agency due to this contract. In case the liabilities of the contractor to the procuring agency and other tax amount due to the contract, then such amount shall be recovered from the amount of performance security and balance amount of the performance security shall be return to the contractor.

**2.43. Retention Money.**

Retention money shall be deducted from contractor's running performance bill at the rate of 5% (Five Percent) of monthly bill amount. The retention money shall be released in the currency in which it is deducted (Pak Rupees) after 12<sup>th</sup> (Twelve) running bill payments of the contractor for the work successfully executed for last twelve month. The amount due to the contractor in respect of retention money shall be released (within 60 days after end of twelve months contract period) after deduction of such amount as are required to be recovered on account of default of contractor in performing his functions, if any, under this contract.

**2.44. Format Contract Agreement**

Format of Contract Agreement at annexure 18.

**2.45. Form of Bank Guarantee for Performance Security**

Format of bank guarantee for performance security is attached at annexure 16.

**2.46. Inspection of Work & Services performed by the contractor**

Representative of procuring agency shall inspect the work and services performed by the contractor under the contract and any deficiencies of work and services shall be notified in writing giving warning letter to the contractor. If the contractor does not recover/remove the deficiencies indicated a penalty as per penalty clauses shall be imposed.

**2.47. Letter of Acceptance.**

After announcement of tender decision, letter of acceptance will be sent to successful bidder/contractor, inviting for signing of agreement the contract agreement shall be signed within 14 (fourteen) days following the date of letter of acceptance.

**2.48. Arbitration**

Any dispute that is not amicably resolved shall be finally settled, unless otherwise specified in the Contract, under the Arbitration Act 1940 updated from time to time and would be held anywhere in the Province of Sindh at the discretion of procuring agency.

**2.49. Information Related to Contractor / Bidder**

- a. Contractor/Bidder Full Name \_\_\_\_\_
- b. Address \_\_\_\_\_
- c. Telephone No. \_\_\_\_\_
- d. Fax No. \_\_\_\_\_
- e. E-mail Address. \_\_\_\_\_

## 2.50. Bidding Data

### Bidding Data

Srl#	Data	
1	Name of Work	<b>Front End Collection and Disposal of Municipal Solid Waste For DMC Malir (DMC Malir Area) &amp; District Council (District Council Area) Karachi, Sindh, Pakistan.</b>
2	The Name of Procuring Agency's Official	Executive Director-I SSWMB
	Address	Bungalow No. D-47 Block-2, Clifton, Karachi, Pakistan.
	Telephone#	+92 21 35372982-4, 35863026
	E-mail	<a href="mailto:info@sswmb.gos.pk">info@sswmb.gos.pk</a>
	Facsimile	+92 21 35372985
	Website	<a href="http://www.sswmb.gos.pk">www.sswmb.gos.pk</a>
3	Procedure of open competitive bidding (International Competitive Bidding – ICB)	<p>Single Stage – Two Envelope Procedure</p> <p>a. Proposal shall comprise a single package containing two separate sealed envelopes. Each envelope shall contain, separately the Technical/Operational Proposal &amp; Financial Proposal.</p> <p>b. The package (Outer Envelope) shall be clearly marked the name of the Proposal, date and time of submission and the address and place of the submission and name and address of the contractor/bidder</p> <p>c. The package (Outer envelope) containing the two envelopes must be sealed, signed and stamped by the contractor or its authorized representative.</p>
4	Proposal shall be submitted by hand or may be sent by registered airmail. Proposal submitted through telegraph, telex, fax or e-mail will not be considered.	
5	Financial Proposal to be submitted with Technical Proposals.	
6	Pre-proposal/Pre bid meeting will be held at the office of SSWMB-Bungalow No, D-47, Block-2 Clifton, Karachi, Pakistan <b>on 18<sup>th</sup> February 2016 at 1500 hours.</b>	
7	The proposal/bid submission address is at the office of SSWMB Bungalow No.D-47 Block-2 Clifton, Karachi, Pakistan.	
	Proposal must be submitted no later than the following date & time. <b>30<sup>th</sup> March 2016 at 1430 hours</b>	
8	Proposal must remain valid for 120 (One Hundred and Twenty) days after the proposal/bid submission deadline.	
9	<p><b>Bid Security</b></p> <p>Bid security equal to 1% of total Bid amount will be attached with financial proposal in the form of Payorder, Demand Draft or Bank Guarantee in favour of SSWMB. The bid security shall remain valid for a period of 28 days beyond validity period of the bid. Bid security shall be submitted in the same currency as that in which the bid is priced/quoted.</p>	
10	<p>Clarification may be requested not later than 7 (Seven) days before the submission date.</p> <p>The address for requesting clarification is Executive Director (Operations-I), Sindh Solid Waste Management Board, Karachi, Bungalow No. D-47 Block-2 Clifton, Karachi - Pakistan e-mail <a href="mailto:info@sswmb.gos.pk">info@sswmb.gos.pk</a>, Facsimile +92 21 35372985</p>	

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11	The proposal as well as all related correspondence exchange by the Contractor / Bidder and procuring agency shall be written in English. However it is desirable that the firm's personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan.
12	Alternative proposals are not acceptable and shall not be entertained; each bidder should submit only one proposal fulfilling all conditions, instructions and requirement contained in RFP.
13	Valid Registration Certificate of the following Authorities must be attached with the proposal: a. Sindh Borad of Revenue b. Federal Board of Revenue (NTN Number)
14	The Contractor/Bidder should quote the cost for each item of works under this contract and total bid price in US Dollars. However, interim payment/ running bill payments shall be made in Pak Rupees (conversion/exchange rate declared by the State Bank of Pakistan shall be applicable of the date of submission of interim bill/monthly running bill for payment.
15	The Contractor/Bidder should quote the cost for each item of works inclusive of all National, Provincial, Local taxes, duties, expenses, contingencies and incidental charges.
16	Contractor/ Bidder must submit the original Technical/Operational Proposal and the original Financial Proposal along with copies of the both.
17	Successful Contractor/Bidder is required to submit performance security at 1% (one percent) of the contract amount in form of pay order or bank guarantee in favour of Sindh Solid Waste Management Board, in the currency in which the bid is priced/quoted.
18	Contractor/bidder shall undertake to sign Integrity Pact as per Format provided by SSWMB under this contract.

## **Section III**

### **Description of DMC Malir (DMC Malir Area)** **&** **District Council Karachi (District Council Area)**

**Description of DMC Malir (DMC Malir Area)****3.1. Bin Qasim Zone- Brief Description**

The District Municipal Corporation Malir comprises of two zones i.e. Bin Qasim Zone and Malir Zone. The Bin Qasim Zone comprises of 07 (seven) Union Council, Ibrahim Hayderi UC-1 and Rehri UC-2 both are congested and are by the side of seashore. Cattle colony UC-3 where number of cattle ponds (baras) exist, whereas Quaidabad UC-4, Landhi UC-5 are congested urban areas, Gulshan-e-Hadeed UC-6 - a colony of Steel Mill employees is also congested, and UC-7 Ghaghar is spread over wide area as compared to its population.

The area of Bin Qasim Zone is about 485.7 Sq KM. The population estimates as per statistics of 1998 is 316684 and in view of growth rate of 5% per annum, the population of this zone in the year 2015 is estimated to 721272 persons. Bin Qasim Zone is at the south-east part of Karachi city and close to Arabian Sea. The zone comprises of large area with low population density which is only 1485 person /KM<sup>2</sup>. The MSW densities of UC-03, 04 and 06 is about 3.46 t/KM<sup>2</sup> whereas MSW densities of UC-01, 02, 05 and 07 is about 0.295 t/KM<sup>2</sup>.

The zone is situated at long distance from existing landfill sites. The one, which is nearest, is Sharafi Goth informal landfill site (proposed site for GTS) and new landfill site is proposed to be established at Dahbeji. Therefore MSW of Bin Qasim Zone is to be transported to landfill site at Sharafi Goth through informal GTS located within the zone.

The Zone is also known by its Industrial and fishing activities at Ibrahim Hydery and Rehri Goth near sea belt where fishing / sea food business, textile industries (LATI) and (BQATI) exist.

The detail of MSW generation in each UC of the Zone and its population and other detail are given in annexures.

**3.2. Demographics.**

Bin Qasim Zone is a well-demarcated area commonly known by its industrial activities, large scale providers of Milk, Meat in Karachi have their business in the area fishing industry. Pakistan Steel, Port Qasim, and other industrial areas also exist in the zone. The nature of business under these industries are mostly, automation, garments, steel manufacturing, plastics, leather and leather product, chemical, food packaging, pharmaceutical, dying, cigarettes manufacturing etc.



Bin Qasim Zone is flanked by Malir Zone, Quaidabad, District Thatta on the east and Malir River on the north and Sukhan Nallah on the west of the zone.

The zone comprises of following UCs:

UC No.	UC Name	UC No.	UC Name
1	Ibrahim Hayderi	5	Landhi
2	Rehri	6	Gulshan-e-Hadeed
3	Cattle Colony	7	Ghaghar
4	Quaidabad		

#### **UC-1 Ibrahim Hayderi**

The UC-1 Ibrahim Hayderi consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Ali Akbar Shah Goth	Medium	Middle	80-120 Sq Yard	
2	Jumma Goth	Medium	Middle	80-120 Sq Yard	
3	Jamote Para	Medium	Middle	80-120 Sq Yard	
4	Charan Para	Medium	Middle	80-120 Sq Yard	
5	Balouch Pra	Medium	Middle	80-120 Sq Yard	
6	Machi Para	Medium	Middle	80-120 Sq Yard	
7	Katchi Para	Medium	Middle	80 Sq Yard	
8	Jakawani Para	Medium	Middle	80 Sq Yard	
9	Molvi Para	Medium	Middle	80 Sq Yard	
10	Wahid Wani Para	Medium	Middle	80 Sq Yard	
11	Jabbal Para	Medium	Middle	80 Sq Yard	
12	Muhammadani Para	Medium	Middle	80-120 Sq Yard	
13	Safyani Para	Medium	Middle	80-120 Sq Yard	
14	Panjabi Para	Medium	Middle	80 Sq Yard	
15	Jilani Para	Medium	Middle	80 Sq Yard	
16	Sindhi School Para	Medium	Middle	80-120 Sq Yard	
17	Lal Shah Para	Medium	Middle	80-120 Sq Yard	
18	Main Road KDA	Medium	Middle	80-120 Sq Yard	
19	Water Pump Para	Medium	Middle	80-120 Sq Yard	
20	Umer Colony	Medium	Middle	80-120 Sq Yard	
21	Christian Para	Medium	Middle	80-120 Sq Yard	
22	New Abadi Para	Medium	Middle	80-120 Sq Yard	
23	Khaskhali Para	Medium	Middle	80-120 Sq Yard	

#### **UC-2 Rehri**

The UC-2 Rehri consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Peerano Goth	Developed	Low	60 Yard	
2	Jumma Himayati Goth	Developed	Low	60 Yard	
3	Lath Basti Goth I	Developed	High	120-512 Sq Yard	
4	Lath Basti Goth II	Developed	High	120-512 Sq Yard	
5	Bakhtawar Goth	Developed	Middle	120-512 Sq Yard	

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6	Ali Brohi Goth	Developed	Low	120 Sq Yard	
7	Mousani Mohallah Rehri	Developed	Middle	120 Sq Yard	
8	Dabla Para Rehri	Developed	Low	80 Sq Yard	
9	Amin Jat Para Rehri	Developed	Middle	100 Sq Yard	
10	Lala Abad	Developed	Middle	120 Sq Yard	
11	Ilyas Goth	Developed	Middle	120 Sq Yard	
12	Dawood Jat Goth	Developed	Middle	120 Sq Yard	
13	Pan Para rehri	Developed	Middle	120 Sq Yard	
14	Qasim Ali Para	Developed	Middle	120 Sq Yard	
15	Charyani Para Rehri	Developed	Middle	120 Sq Yard	
16	Waryani Para Rehri	Developed	Middle	120 Sq Yard	
17	Shaikh Para Rehri	Developed	Middle	120 Sq Yard	
18	Khaskhali Para Rehri	Developed	Middle	120 Sq Yard	
19	Khalifa Jat Para Rehri	Developed	Middle	120 Sq Yard	
20	Malkai Para Rehri	Developed	Middle	120 Sq Yard	
21	Siddique Khaskhali Rehri	Developed	Middle	120 Sq Yard	
22	Such Dino Goth	Developed	Middle	120 Sq Yard	
23	Atta-ur Rehman Goth	Developed	Middle	120 Sq Yard	
24	Chasma Goth	Undeveloped	Low	120 Sq Yard	

### **UC-3 Cattle Colony**

The UC-3 Cattle Colony consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Cattle Road No -0	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
2	Cattle Road No -01	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
3	Cattle Road No -02	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
4	Cattle Road No -03	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
5	Cattle Road No -04	developed	Middle	1000 Sq Yard & More	Cattle Ponds
6	Cattle Road No -05	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
7	Cattle Road No -06	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
8	Cattle Road No -07	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
9	Cattle Road No -08	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
10	Cattle Road No -09	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
11	Cattle Road No -10	Developed	Middle	1000 Sq Yard & More	Cattle Ponds
12	Residential Area from 01 to 10	Developed	Middle	120 Sq Yard	
13	Labour Squire Flates	Developed	Low	60 Sq Yard	
14	Labour Squire 500 quarters	Developed	Low	80 Sq Yard	
15	Maree Balouch Goth	Developed	Middle	120 sq Yard	
16	Muslim League Basti	Developed	Middle	120 Sq Yard	
17	Barkat-e-Madina	Developed	Middle	120 Sq Yard	
18	Christian Basti	Developed	low	80 & 120 sq Yard	
19	PMTF Colony	Developed	Middle	120 Sq Yard	
20	Balouch Goth Opposite Labour Squire	Un developed	Low	120 s q Yard	
21	From Road No-0 to Road No-08 left side of Mehran Highway attached with the Boundary Wall of PMTF ( Zaman Town)	Developed	Low	120 sq Yard	
22	Odh Basti	Developed	Middle	120 Sq Yard	
23	Hindo Mohalla	Developed	Middle	120 Sq Yard	
24	Qasim Town	Developed	Middle	120 Sq Yard	
25	Nai abadi	Developed	Middle	120 Sq Yard	
26	Samom Goth	Developed	Middle	120 Sq Yard	

#### **UC-4 Quaidabad**

The UC-4 Quaidabad consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gulistan Society	Developed	Middle	120 Sq Yard	
2	Q/abad 100	Developed	Middle	120 Sq Yard	
3	Radio Pkistan ColonyPMHS	Developed	Middle	120 Sq Yard	Flats Luxury
4	Qazafi Town	Developed	Middle	120 Sq Yard	
5	Gulshan-e-Askari	Developed	Middle	120+240Sq Yard	
6	Zafar Town	Developed	Middle	120 Sq Yard	
7	Panwar Goth	Developed	Middle	80+120 Sq Yard	
8	Green Park City	Developed	Middle	120 Sq Yard	
9	Madina Colony	Developed	Middle	120 Sq Yard	
10	Afridi Colony	Developed	Low-Middle	80+120 Sq Ya	
11	Kohat Colony	Developed	Middle	120 Sq Yard	
12	SMHS	Developed	Middle	120 Sq Yard	
13	Al-Syed Center Flate & banglows	Developed	Middle	60 & 120 Sq Yard	
14	Murghay Khana	Developed	Middle	120 Sq Yard	
15	Khuladabad	developed	Low	120 sq yard	
16	Becham Town	Developed	Middle	120 Yard	
17	Jamal-e-Ibrahim	Developed	Middle	120 Sq Yard	
18	Tanoli Colony	Developed	Middle	120 Sq Yard	

#### **UC-5 Landhi**

The UC-5 Landhi consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Kohi Goth	Developed	Middle	120 Sq Yard	
2	Saleh Muhammad Goth	Developed	Middle	120 Sq Yard	
3	Faqeer Muhammad Goth	Developed	Middle	120 Sq Yard	
4	Nooruddin Bagh	Developed	Middle	120 Sq Yard	
5	Jam Kanda	Developed	Middle	120 Sq Yard	
6	Sheedi Goth	Developed	Middle	120 Sq Yard	
7	Yousuf Arfani Goth	Developed	Middle	160 Sq Yard	
8	Shah Latif Town	Developed	Middle	240-80 Sq Yard	
9	Ismail jokhio Goth	Developed	Middle	80 Sq Yard	
10	Arab Phawnar Goth	Developed	Middle	80 Sq Yard	
11	Master Allana Panwar Goth	Developed	Low	60/80 Sq Yard	
12	Khukhray Mohalla	Developed	Low	80 Sq Yard	
13	Dawood Shorow Goth	Developed	Low	120 sq Yard	
14	Abdullah Goth	Developed	Low	120 sq yard	
15	Razak abad	Developed	Low	120 sq Yard	
16	Mossa Goth	Developed	Low	120 sq Yard	
17	Karim Bux Nouhani Goth	Developed	Low	120 sq Yard	
18	Lashari Goth	Developed	Low	120 sq Yard	
19	Pir Sirhandi Goth	Developed	Low	120 sq Yard	
20	Nohani Goth	Developed	Low	120 sq Yard	
21	Lal Muhammad Goth	Developed	Low	120 sq Yard	
22	Khuda Bux Nouhani Goth	Developed	Low	120 sq Yard	
23	Pashamby Goth	Developed	Low	120 sq Yard	
24	Baitullah Bagh	Developed	Low	120 sq Yard	
25	Mulla Mossa Goth	Developed	Low	120 sq Yard	
26	Umer bagh	Developed	Low	120 sq Yard	

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27	Sayeed abad	Developed	Low	120 sq Yard	
28	Graib abad	Developed	Low	120 sq Yard	
29	Nazar Muhammad Goth	Developed	Low	120 sq Yard	
30	Haji Pir Goth	Developed	Low	120 sq Yard	
31	Dad Karim Goth	Developed	Low	120 sq Yard	
32	Lal Muhammad Sheedi Goth	Developed	Low	120 sq Yard	

### **UC-6 Gulshan-e-Hadeed**

The UC-6 Gulshan-e-Hadeed consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

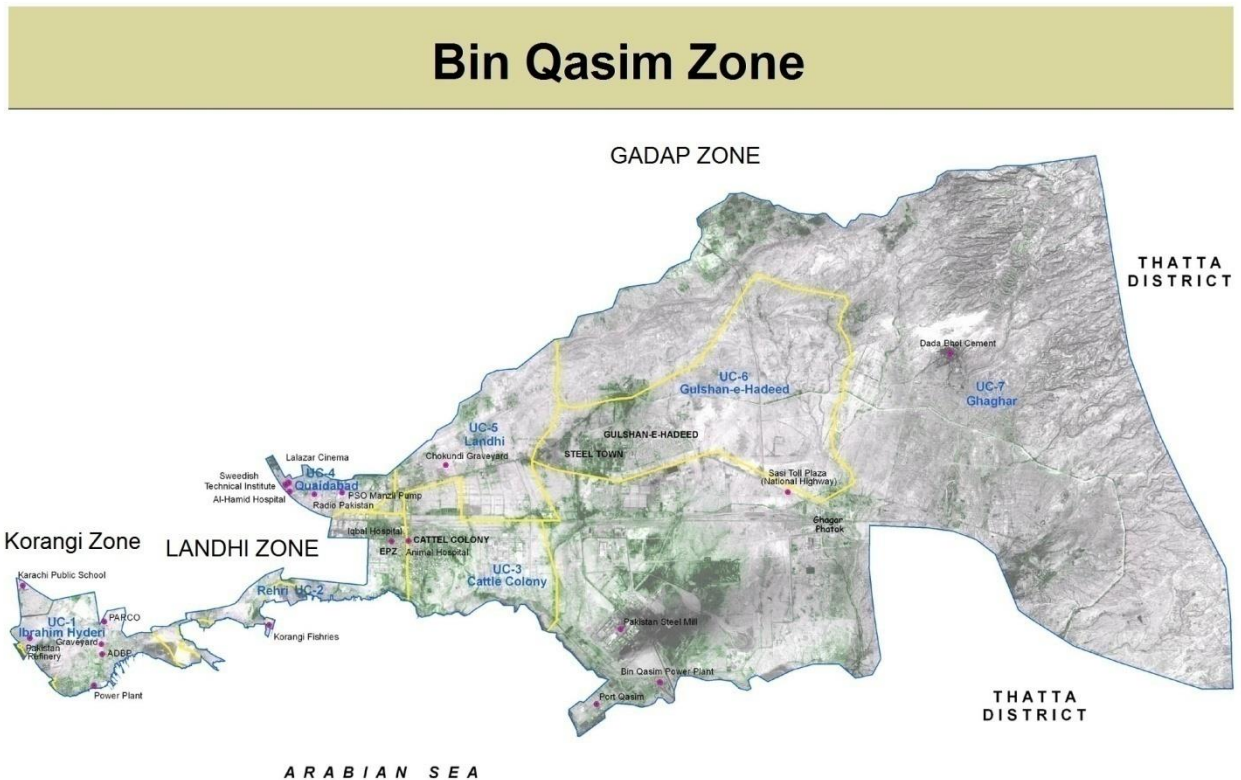
Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gulshan-e-Hadeed Phase-I	Developed	Middle	120 Sq Yard	
2	Gulshan-e-Hadeed Phase-II	Developed	Middle	120 Sq Yard	
3	Filter Plant	Developed	Middle	500 Sq Yard	
4	Steel Town Ship	Developed	Middle	200 Sq Yard	
5	Nishtar abad	Developed	Middle	120 Sq Yard	
6	Sattal Goth	Developed	Middle	120 Sq Yard	
7	Pathan colony	Developed	Middle	120 Sq Yard	

### **UC-7 Ghaghar**

The UC-7 Ghaghar consists of following localities/areas. The infrastructural condition, housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Ghagher Phattak	Developed	Middle	120 Sq Yard	
2	Achar sallar Goth	Developed	Middle	120 Sq Yard	
3	Pipri	Developed	Middle	120 Sq Yard	
4	Chawal Godown	Developed	Middle	120 Sq Yard	
5	Shah Town	Developed	Middle	120 Sq Yard	
6	Allah Bux Himayati Goth	Developed	Middle	120 Sq Yard	
7	Eido Goth	Developed	Middle	120 Sq Yard	
8	Eassy City	Developed	Middle	120 Sq Yard	
9	Gabool Goth	Developed	Middle	120 Sq Yard	
10	Sindhi Goth	Developed	Middle	120 Sq Yard	
11	Da Ta Nagar	Developed	Middle	120 Sq Yard	
12	Noor Muhammad Goth	Developed	Middle	120 Sq Yard	
13	Khuda Bux Gabool	Developed	Middle	120 Sq Yard	
14	Shah Nawaz goth	Developed	Middle	120 Sq Yard	
15	Naseer abad	Developed	Middle	120 Sq Yard	
16	Ali Muhammad Goth	Developed	Middle	120 Sq Yard	
17	Jangi Khan Goth	Developed	Middle	120 Sq Yard	
18	Akbar Goth	Developed	Middle	120 Sq Yard	
19	Karim Bux Muree	Developed	Middle	120 Sq Yard	
20	Haji Mureed Goth	Developed	Middle	120 Sq Yard	
21	Saboo Gabool Goth	Developed	Middle	120 Sq Yard	
22	Samandari BaBa	Developed	Middle	120 Sq Yard	
23	Mamoo Salar Goth	Developed	Middle	120 Sq Yard	
24	Khuda Bux Jokhio	Developed	Middle	120 Sq Yard	
25	Hashim Jokhio	Developed	Middle	120 Sq Yard	
26	Darya Khan Goth	Developed	Middle	120 Sq Yard	
27	Ibrahim Goth	Developed	Middle	120 Sq Yard	
28	Qaisrani Goth	Developed	Middle	120 Sq Yard	
29	Zuharani Goth	Developed	Middle	120 Sq Yard	
30	Odh Basti	Developed	Middle	120 Sq Yard	
31	Hero Kalmati Goth	Developed	Middle	120 Sq Yard	

### 3.3. Maps of Bin Qasim Zone.



### 3.4. Malir Zone Brief Description

Malir Zone is on the North of Shah Faisal Zone of DMC Korangi. The population of the zone as per population estimates of 1998 was 396290 person and in view of population growth rate at 5%, the population of the zone in the year 2015 is about 907138 person. The average population density of the zone is about 49301 person/KM<sup>2</sup>. The MSW output is 344.71 t/d and MSW Density distribution is 18.73 t/KM<sup>2</sup>. The zone is congested and densely populated.

The zone is situated at long distance from existing landfill site, the area, which is nearest, is Ashrafi Goth. The landfill site of Dahbeji, which is to be built, is also far away from the zone therefore MSW of Malir Zone may be transported to landfill site through informal GTS that exists within the zone or nearest new GTS planned.

The zone is also known by its industrial activities under the umbrella of **Malir** Industrial Area.

The zone comprises of 07 Union Councils. The details of MSW generation in Each UC, its population and other details are given in annexure.

### 3.5. Demographics of Malir Zone

Malir Zone is a well-demarcated area, mostly congested and middle class population. However agriculture farmhouses are located in many parts of the zone. The zone is flanked by Bin Qasim Zone on the east and Malir River in the west and north.

The Zone comprises of the following UCs.

UC No.	UC Name	UC No.	UC Name
1	Model Colony	5	Jaffar e Tayyar
2	Kala Board	6	Gharabad
3	Saudabad	7	Ghazi Dawood Brohi
4	Khokhrapar		

#### UC-1 Model Colony

The UC-1 Model Colony consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Sweet Home Land	Developed	Middle	120-400	
2	Qaizmabad	Developed	Middle	120-400	
3	Sheet 1 to 10	Developed	Middle	120-400	

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4	Nashtarabad	Developed	Middle	120-400	
5	9 C	Developed	Middle	120-400	
6	Sheet 11 to 25	Developed	Middle	120-400	
7	Moinabad	Developed	Middle	120-400	
8	Janat ul Barkat	Developed	Middle	120-400	
9	Fazabad	Developed	Middle	120-400	
10	Railway Society	Developed	Middle	120-400	
11	Soorto Society	Developed	Middle	120-400	
12	Al Mujeeb Gardeen	Developed	Middle	120-400	
13	Haji Rahi Yar Goth	Un Developed	Low-Middle	120-400	
14	Jafar Bagh 1	Developed	Middle	120-400	
15	Jafar Bagh 2	Developed	Middle	120-400	
16	Lasi Para	Un Developed	Low-Middle	120-400	
17	Abbasi Markat	Un Developed	Low-Middle	120-400	

### **UC-2 Kala Board**

The UC-2 Kala Board consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	A Area	Developed	Middle	120-200	
2	B Area	Developed	Middle	120-200	
3	C Area	Developed	Middle	120-200	
4	G Area	Developed	Middle	120-200	
5	Drakshan Society	Developed	Middle	120-200	
6	Al Ameenn Society	Developed	Middle	120-200	
7	Shadman Town	Developed	Middle	120-200	
8	Millat Gardeen	Developed	Middle	120-200	

### **UC-3 Saudabad**

The UC-3 Saudabad consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	H Area	Developed	Middle	80	
2	C Area	Developed	Middle	80	
3	S 1 Area	Developed	Middle	80	
4	S 2 Area	Developed	Middle	80	
5	S 3 Area	Developed	Middle	80	
6	D 1 Area	Developed	Middle	80	
7	D 2 Area	Developed	Middle	80	
8	D 3 Area	Developed	Middle	80	

### **UC-4 Khokhrapar**

The UC-4 Khokhrapar consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	H Area	Developed	Middle	80-200	
2	H Area Sabir Colony	Developed	Middle	80-200	
3	Kousar Town	Developed	Middle	80-200	
4	Indus Mehra	Developed	Middle	80-200	
5	Pak Kusar Town	Developed	Middle	80-200	
6	Gilanabad	Developed	Middle	80-200	
7	Pak Mehran Town	Developed	Middle	80-200	

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8	F 1 Area	Developed	Middle	80-200	
9	F 2 Area	Developed	Middle	80-200	
10	Muzafar Colony	Un Developed	Middle	80-200	

### **UC-5 Jaffar e Tayyar**

The UC-5 Jaffar e Tayyar consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Jaffar e Tayyar Society	Developed	Middle	60-200	
2	Hassain Society	Developed	Middle	60-200	
3	F South	Developed	Middle	60-200	
4	Amar Yasir Phase 1	Developed	Middle	60-200	
5	Amar Yasir Phase 2	Developed	Middle	60-200	
6	Aleemabad	Developed	Low	60-200	
7	Shamil Homs	Developed	Middle	60-200	
8	Shabana Town	Developed	Middle	60-200	
9	Nafees Banglos	Developed	Middle	60-200	
10	Jinnah Colony	Developed	Low	60-200	
11	Ghazi Town	Developed	Middle	60-200	
12	Muhammad Abad	Developed	Low	60-200	

### **UC-6 Gharabad**

The UC-6 Gharabad consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	A Area	Developed	Low	60-80	
2	B Area	Developed	Low	60-80	
3	C Area	Developed	Low	60-80	
4	Jalbani Goth	Developed	Low	60-80	
5	Bachal Goth	Developed	Low	60-80	
6	Madina Colony	Developed	Low	60-80	
7	Adam Hangora Goth	Developed	Low	60-80	
8	Saudia Colony	Developed	Low	60-80	
9	Muhammadi Colony.	Developed	Low	60-80	
10	Lee Lay Town	Developed	Low	60-80	
11	Chaman Colony	Developed	Low	60-80	
12	Mehran Goth	Developed	Low	60-80	

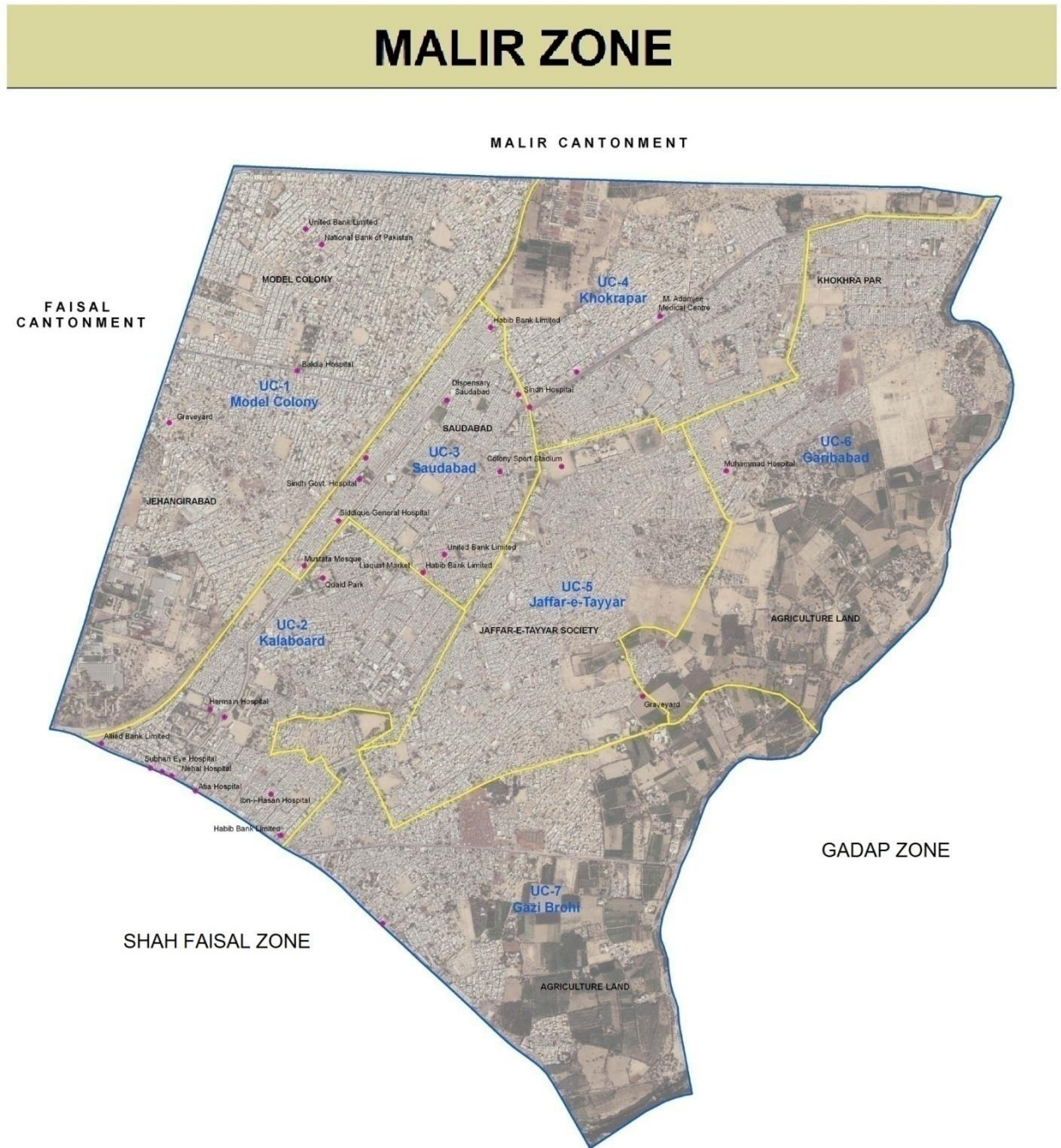
### **UC-7 Ghazi Dawood Brohi**

The UC-7 Ghazi Dawood Brohi consists of following localities/areas. The infrastructural condition, Housing Unit types, income groups and names of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Dawood Brohi Goth	Un Developed	Middle	60-200	
2	E 1 E 2	Developed	Middle	60-200	
3	Gulshan Qadri	Developed	Middle	60-200	
4	Mola Ram Compound	Un Developed	Middle	60-200	
5	Ghzi Town	Un Developed	Low	60-200	
6	Musarat Colony	Un Developed	Low	60-200	
7	Salar Goth	Un Developed	Low	60-200	
8	Malir Mndar	Un Developed	Low	60-200	
9	Asoo Goth	Un Developed	Low	60-200	



### 3.6. Maps of Malir Zone



## **Description of District Council Karachi (District Council Area)**

### **3.7. Gadap Zone- Brief Description**

Gadap Zone of District Council area is a vast area as compared to its population. This Zone is in the North of Karachi city. The population of the zone as per population estimates of 1998 is 287564 persons and in view of population growth at 5% per annum its population in the year 2015 is estimated to 659503 persons.

The population density is 334 persons/KM<sup>2</sup>. The existing Jamchakro Landfill site falls within UC-5 of the zone. Except for UC-6 and UC-7, the population density and MSW density of other UCs is low, therefore MSW of these places may or may not be made part of the MSW collection and transportation main system depending on the situation in that specific area. The MSW of UCs having low quantity should be taken up for its disposal at or nearby its production places; a separate strategy should be evolved for collection, transportation and disposal of small quantum of MSW. However major quantum should be transported to Jamchakro landfill site directly.

The zone comprises of 08 UC the details of the population, MSW output in each UC and other details are given in Annexures.

### **3.8. Demographics of Gadap Zone**

District Council Karachi is the largest local council as compared to other local councils/DMCs of Karachi touching the boundaries of District Jamshoro in East and North and Baluchistan on the West. The area is mostly rural hilly type and barren. The main profession of the area people is agriculture, poultry and dairy farming. The villages and Goths of the zone are situated scattered and sometimes far away from each other. Because of rural entity, the MSW generation is on lower side and its collection and transportation may be expensive. However the MSW of the area may be transported to Jamchakro Landfill site directly. Most of the roads and link roads are earthen and dwellings are Katchiabadi type.

The Zone comprises of the following UCs.

<b>UC No.</b>	<b>UC Name</b>	<b>UC No.</b>	<b>UC Name</b>
1	Murad Memon	5	Songal
2	Darsana Channo	6	Maymarabad
3	Gujro	7	Yousuf Goth
4	Gadap	8	Manghopir

**UC-1 Murad Memon**

The UC-1 Murad Memon consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Factory Area	Undeveloped	Low		
2	Hashim Khaskheli Goth	Undeveloped	Low	150-200	
3	Baricha Muhalla	Undeveloped	Low	150-200	
4	Faqeer Muhalla	Undeveloped	Low	150-200	
5	Bakda Muahalla	Undeveloped	Low	150-200	
6	Bandija Muhalla	Undeveloped	Low	100-120	
7	Zargar Muhalla	Undeveloped	Low	100	
8	Haji Ahmed Muhalla	Developed	Low-Middle	100-120	
9	New pan mandi	Undeveloped	Low-Middle	120-240	
10	Umeed Ali Muhalla	Undeveloped	Low-Middle	120-200	
11	Rehmani Muhalla	Undeveloped	Low-Middle	120-200	
12	Haji Gul Muhalla	Undeveloped	Low-Middle	120-200	
13	Mesoori Muhalla	Undeveloped	Low-Middle	120-200	
14	Al-Murad Society	Undeveloped	Low-Middle	120-200	
15	Haji Shafi Muhammad Muhalla	Undeveloped	Low-Middle	120-200	
16	Arfani muhalla	Undeveloped	Low-Middle	120-200	
17	Haji Abdul Kareem Muhalla	Undeveloped	Low-Middle	120-200	
18	Usmania Muhalla	Undeveloped	Low-Middle	120-200	
19	Jamot Muahlla	Undeveloped	Low	80-120	
20	Brohi Muhalla	Undeveloped	Low	80-120	
21	Samma Muhalla	Undeveloped	Low	80-120	
22	Ghafoor basti	Undeveloped	Low	80-120	
23	Qalander Basti	Undeveloped	Low	80-120	
24	Shaikh Muhalla	Undeveloped	Low	80-120	
25	Niamat Village	Undeveloped	Low	80-120	
26	Haji Nadeem Society	Undeveloped	Middle	80-120	
27	Bachal Bagh	Undeveloped	Low	120-200	
28	Somaar Kandiani Goth	Undeveloped	Low	120-150	
29	Kachi Colony	Undeveloped	Low	120-150	
30	Soomar Ismail Goth	Undeveloped	Low	120-150	
31	Sayed Muhalla (Memon)	Undeveloped	Low	80-120	
32	Sayed Muhalla (Soomar Kandia Goth)	Undeveloped	Low	80-120	
33	Memon Bazar (Memon Goth)	Undeveloped	Low-Middle	120-200	
34	Shoro Muhalla	Undeveloped	Low-Middle	120-150	
35	Jam House	Undeveloped	Low-Middle	120-200-400	
36	Lasi Town	Undeveloped	Low-Middle	120-150	
37	Nawalane	Undeveloped	Low-Middle	120-400	
38	jam Goth	Undeveloped	Low-Middle	120-400	
39	Mullah Essa Goth	Undeveloped	Low	120-200	
40	Old Thanna	Developed	Low-Middle	120-200	
41	New Old Thanna	Developed	Low-Middle	120-200	
42	Paradise	Undeveloped	Low-Middle	120-200	
43	Beero Goth	Undeveloped	Low	120-150	
44	Haji Shamba Goth	Undeveloped	Low	120-150	
45	Haji Dad Muhammad Goth	Undeveloped	Low	120-150	
46	Miandad Goth	Undeveloped	Low	120-150	
47	Samoo Goth	Undeveloped	Low	120-200	
48	Haji Shafi Muhammad Goth	Undeveloped	Low	120-150	
49	Dur Muhammad Goth	Undeveloped	Low	120-150	
50	Shafi Muhammad Goth	Undeveloped	Low	120-150	
51	Haji Murad Jaffar Garden	Undeveloped	Low	120-150	
52	Lassi Goth	Undeveloped	Low	120-200	
53	Haji Yaqoob Magsi Goth	Undeveloped	Low	120-200	
54	Khwar Bazar	Undeveloped	Low	120-200	
55	Jam Murad Ali Goth	Undeveloped	Low-Middle	120-400	
56	Hashim Khaskheli Goth	Undeveloped	Low	120-150	
57	Brohi Muhalla	Undeveloped	Low	80-120	

**UC-2 Darsano Channo**

The UC-2 Darsana Channo consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Dur Muhammad baloch	Undeveloped	Low	150 - 200	
2	Haji Mussa Baloch	Undeveloped	Low	150 - 200	
3	Haji Soomar Goth	Undeveloped	Low	150 - 200	
4	Haji Yousuf Baloch	Undeveloped	Low	150 - 200	
5	Ishaq Jokhio Goth	Undeveloped	Low	150 - 200	
6	Ghulam Hussain Jokhio Goth	Undeveloped	Low	150 - 200	
7	Haji Maroo Goth Jokhio Goth	Undeveloped	Low	150 - 200	
8	Mazar Khan Goth Jokhio Goth	Undeveloped	Low	150 - 200	
9	Allah Bux Jokhio Goth	Undeveloped	Low	150 - 200	
10	Umer Baloch Goth	Undeveloped	Low	150 - 200	
11	Hashim Mahar Ali Jokhio Goth	Undeveloped	Low	150 - 200	
12	Akhtiar Khan Jokhio Goth	Undeveloped	Low	150 - 200	
13	Haji Razo Jokhio Goth	Undeveloped	Low	150 - 200	
14	Mubarak Jokhio Goth	Undeveloped	Low	150 - 200	
15	Ali Hamal Baloch Goth	Undeveloped	Low	150 - 200	
16	Umer Khaskheli Goth	Undeveloped	Low	150 - 200	
17	Long Jokhio Goth	Undeveloped	Low	150 - 200	
18	Usman Jokhio Goth	Undeveloped	Low	150 - 200	
19	Abdul Rehman Jokhio Goth	Undeveloped	Low	150 - 200	
20	Jaffar Kahskheli Goth	Undeveloped	Low	150 - 200	
21	Dad Muhammad Sheedi	Undeveloped	Low	150 - 200	
22	Raza Muhammad Jokhio	Undeveloped	Low	150 - 200	
23	Ali nawaz Jokhio Goth	Undeveloped	Low	150 - 200	
24	Jam Mahar Ali Goth	Undeveloped	Low	150 - 200	
25	Khamiso Khan Jokhio Goth	Undeveloped	Low	150 - 200	
26	Main Bazar Darsano Channo City	Undeveloped	Low	150 - 200	
27	Ibrahim Jokhio Goth	Undeveloped	Low	150 - 200	
28	Haji Siddique Jokhio Goth	Undeveloped	Low	150 - 200	
29	Faqeer Muhammad Baloch Goth	Undeveloped	Low	150 - 200	
30	Khair Muhammad Goth	Undeveloped	Low	150 - 200	
31	Dad Muhammad jokhio Goth	Undeveloped	Low	150 - 200	
32	Bakhsho Jokhio	Undeveloped	Low	150 - 200	
33	Doloo Jokhio Goth	Undeveloped	Low	150 - 200	
34	Ranoo Jokhio Goth	Undeveloped	Low	150 - 200	
35	Fazal Jokhio Goth	Undeveloped	Low	150 - 200	
36	Haji Hussain Baloch	Undeveloped	Low	150 - 200	
37	Umer Jamot Goth	Undeveloped	Low	150 - 200	
38	Adam Rindh Goth	Undeveloped	Low	150 - 200	
39	Nabi Bux Bakak Goth	Undeveloped	Low	150 - 200	
40	Haji Ali Bux Jokhio Goth	Undeveloped	Low	150 - 200	
41	Muhammad Rahim Khaskheli Goth	Undeveloped	Low	150 - 200	
42	Ibrahim Wadelo Baloch Goth	Undeveloped	Low	150 - 200	
43	Mueem Baloch Goth	Undeveloped	Low	150 - 200	
44	Khamiso Baloch Goth	Undeveloped	Low	150 - 200	
45	Iqbal Baloch Goth	Undeveloped	Low	150 - 200	
46	Ramzan Jokhio Goth	Undeveloped	Low	150 - 200	
47	Kamal bakak Goth	Undeveloped	Low	150 - 200	
48	Ramzan Jokhio Goth	Undeveloped	Low	150 - 200	
49	Bakhsho jokhio Goth	Undeveloped	Low	150 - 200	
50	Jama Jokhio Goth	Undeveloped	Low	150 - 200	
51	Haji Karo Goth	Undeveloped	Low	150 - 200	
52	Maindad Kahskheli Goth	Undeveloped	Low	150 - 200	
53	Haji Mahyar Jokhio Goth	Undeveloped	Low	150 - 200	
54	Yar Muhammad Jokhio Goth	Undeveloped	Low	150 - 200	
55	Dumloti Colony No. 6	Undeveloped	Low	150 - 200	
56	Dhesar Jokhio Goth	Undeveloped	Low	150 - 200	
57	Dumloti No.3	Undeveloped	Low	150 - 200	
58	Haji Noor Mohammad Baloch	Undeveloped	Low	150 - 200	
59	Abdul Rehman Baloch Goth	Undeveloped	Low	150 - 200	
60	Abdul hakeem Baloch Goth	Undeveloped	Low	150 - 200	

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61	Abdul Aziz kalmati Goth	Undeveloped	Low	150 - 200	
62	Ghulam Haider Gabool Goth	Undeveloped	Low	150 - 200	
63	Dad Muhammad Baloch Goth	Undeveloped	Low	150 - 200	
64	Haji Qasim baloch Goth	Undeveloped	Low	150 - 200	
65	Ghulam Rasool Baloch Goth	Undeveloped	Low	150 - 200	
66	Jewan Khalskheli Goth	Undeveloped	Low	150 - 200	
67	haji Wash Dil Goth	Undeveloped	Low	150 - 200	
68	Waja Ali Muhammad Goth	Undeveloped	Low	150 - 200	
69	Bakhsha bandijo Goth	Undeveloped	Low	150 - 200	
70	Ismail Bagh Goth	Undeveloped	Low	150 - 200	
71	Abubakar Goth	Undeveloped	Low	150 - 200	
72	Saleh Muhammad Ronjha	Undeveloped	Low	150 - 200	
73	Haji Feroz Jokhio Goth	Undeveloped	Low	150 - 200	
74	Ramzan Shaikh Goth	Undeveloped	Low	150 - 200	
75	Waja Abubakar baloch Goth	Undeveloped	Low	150 - 200	
76	Jogi Goth	Undeveloped	Low	150 - 200	
77	Ronjha Goth	Undeveloped	Low	150 - 200	
78	hashim Jokhio Goth	Undeveloped	Low	150 - 200	
79	Haji Nodo Jokhio Goth	Undeveloped	Low	150 - 200	
80	Damba Goth Super Highway	Undeveloped	Low	150 - 200	
81	Shah Muhammad Salar	Undeveloped	Low	150 - 200	
82	Ghulam Muhammad Jokhio Goth	Undeveloped	Low	150 - 200	
83	Haji zakria Goth	Undeveloped	Low	150 - 200	
84	Yasrab Colony	Undeveloped	Low	150 - 200	
85	Haji Allah Dad jokhio	Undeveloped	Low	150 - 200	
86	Abdul Hameed jokhio	Undeveloped	Low	150 - 200	
87	Panjo Jokhio	Undeveloped	Low	150 - 200	
88	Abdul Hakeem Rind Goth	Undeveloped	Low	150 - 200	
89	Haji Gul Hasan Jokhio	Undeveloped	Low	150 - 200	
90	Yousuf Jokhio	Undeveloped	Low	150 - 200	
91	Faqeer Muhammad Jokhio	Undeveloped	Low	150 - 200	
92	Bhoro Jokhio Goth	Undeveloped	Low	150 - 200	
93	Qasim Magsi Goth	Undeveloped	Low	150 - 200	
94	Hashim Baloch Goth	Undeveloped	Low	150 - 200	
95	Panjo Jokhio	Undeveloped	Low	150 - 200	
96	Mummo Jokhio Goth	Undeveloped	Low	150 - 200	
97	Ismail Jokhio	Undeveloped	Low	150 - 200	
98	Hussain Jokhio	Undeveloped	Low	150 - 200	
99	Jan Mohammad baloch	Undeveloped	Low	150 - 200	

### **UC-3 Gujro**

The UC-3 Gujro consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Jannat Gull Town	Undeveloped	Low-Middle	120-200	
2	Al Asif Squire	Undeveloped	Middle-High	120-200	
3	Hasan Noman Colony	Developed	Low-Middle	120-200	
4	Junejo Colony	Undeveloped	Low		
5	Machar Colony	Undeveloped	Low-Middle	100-200	
6	Malik Azad S Market	Undeveloped	Low	100-150	
7	Memar Complex	Developed	Low-Middle		
8	Decent Plaza	Developed	Low-Middle		
9	Younus Banglos	Developed	Middle	120-200	
10	Pineor Town	Developed	Middle	120-200	
11	Gull Home	Developed	Middle-High		
12	Good x Banglos	Developed	Middle	120	
13	Asma Banglos	Developed	Middle	120-200	
14	Fateh Mhd Gabol Goth	Undeveloped	Low	120-150	
15	Chutta Gabool Goth	Undeveloped	Low	120-200	
16	Star Colony	Undeveloped	Low	120-150	
17	Lasi Goth	Undeveloped	Low	120-200	
18	Sain Dad Goth	Undeveloped	Low	120-200	
19	Khuda Bux Goth	Undeveloped	Low	120-200	
20	Ahmed Jamal Goth	Undeveloped	Low	120-200	
21	Nazar Khan Goth	Undeveloped	Low	120-200	
22	Ayyob Goth	Undeveloped	Low	120-200	

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23	Jamali Goth	Undeveloped	Low	120-200	
24	Faysal Goth	Undeveloped	Low	120-200	
25	Safia Goth	Undeveloped	Low	120-200	
26	Muhammadi Goth	Undeveloped	Low	120-200	
27	Ashraf Goth	Undeveloped	Low	120-200	
28	Wazeer Brohi Goth	Undeveloped	Low	120-200	
29	Dildar Umrani Goth	Undeveloped	Low	120-200	
30	Khadm Solngi Goth	Undeveloped	Low	120-200	
31	Ahsan a Abad	Developed	Low-Middle	120-240	
32	Junjar Goth	Developed	Low	1200-200	
33	Faqeera Goth	Developed	Low	120-150	
34	Gull Goth	Developed	Low	120-150	
35	Jamali Goth	Developed	Low	120-150	
36	Jahan a Abad Goth	Developed	Low	120-150	
37	Jan Muhammad Brohi Goth	Developed	Low	120-150	
38	Yousuf Sahab Khan Goth	Developed	Low	120-150	

### **UC-4 Gadap**

The UC-4 Gadap consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gadap City	Undeveloped	Low	200 - 400	
2	Mureed Goth	Undeveloped	Low	200 - 400	
3	Haji Goth	Undeveloped	Low	200 - 400	
4	Hussain Baloch Goth	Undeveloped	Low	200 - 400	
5	FaSeFal Abro Goth	Undeveloped	Low	200 - 400	
6	Alo Godar Goth	Undeveloped	Low	200 - 400	
7	Goth Rasool Bux Khaskheli	Undeveloped	Low	200 - 400	
8	Goth Soomar	Undeveloped	Low	200 - 400	
9	Goth Malang	Undeveloped	Low	200 - 400	
10	Hameed Jokhio	Undeveloped	Low	200 - 400	
11	Goth Lalo Khamiso Mallah	Undeveloped	Low	200 - 400	
12	Goth Abro Jokhio	Undeveloped	Low	200 - 400	
13	Goth Zangi Jokhio	Undeveloped	Low	200 - 400	
14	Goth Fateh Muhammad	Undeveloped	Low	200 - 400	
15	Goth Essa Bhoro	Undeveloped	Low	200 - 400	
16	Goth Faffri Bagh	Undeveloped	Low	200 - 400	
17	Goth Allah Bux Baloch Bagh	Undeveloped	Low	200 - 400	
18	Goth Bhoro	Undeveloped	Low	200 - 400	
19	Goth Soomar	Undeveloped	Low	200 - 400	
20	Goth Raho Gohram Jokhio	Undeveloped	Low	200 - 400	
21	Goth Hako Jokhio	Undeveloped	Low	200 - 400	
22	Goth Kalo Brohi	Undeveloped	Low	200 - 400	
23	Goth Usman Takri	Undeveloped	Low	200 - 400	
24	Goth Shako Brohi	Undeveloped	Low	200 - 400	
25	Goth Saleh Muhammad Jumani	Undeveloped	Low	200 - 400	
26	Goth Dawood Khaskheli	Undeveloped	Low	200 - 400	
27	Goth yaqoob Bhumbro	Undeveloped	Low	200 - 400	
28	Goth Waja Ahmed	Undeveloped	Low	200 - 400	
29	Goth hamid Bagh	Undeveloped	Low	200 - 400	
30	Goth Feza Brohi	Undeveloped	Low	200 - 400	
31	Goth Murad Ishaq	Undeveloped	Low	200 - 400	
32	Goth Allah Bux Bagh 2	Undeveloped	Low	200 - 400	
33	Goth Haji Imam Bux Burfat	Undeveloped	Low	200 - 400	
34	Goth Raboo Shdo Brohi	Undeveloped	Low	200 - 400	
35	Goth Razik Dino	Undeveloped	Low	200 - 400	
36	Goth Pab Malir	Undeveloped	Low	200 - 400	
37	Goth haji Faqeer Muahammad Baloch	Undeveloped	Low	200 - 400	
38	Goth Mangio Jokhio	Undeveloped	Low	200 - 400	
39	Goth Hayat Gondar	Undeveloped	Low	200 - 400	
40	Goth Bedi Gondar	Undeveloped	Low	200 - 400	
41	Goth bangal	Undeveloped	Low	200 - 400	
42	Goth haji Achar Bagh	Undeveloped	Low	200 - 400	
43	Goth Ali Muhammad (Adam Bagh)	Undeveloped	Low	200 - 400	
44	Goth gajan Baloch	Undeveloped	Low	200 - 400	

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45	Goth Radho Jokhio	Undeveloped	Low	200 - 400	
46	Goth Ghulam Bherio	Undeveloped	Low	200 - 400	
47	Goth haji umer Ali gabol	Undeveloped	Low	200 - 400	
48	Goth Ameer Bux Gabol	Undeveloped	Low	200 - 400	
49	Goth Aalia Gabol	Undeveloped	Low	200 - 400	
50	Goth Darya Khan Gabol	Undeveloped	Low	200 - 400	
51	Goth Muhammad Gabol	Undeveloped	Low	200 - 400	
52	Ali Dad Ghabol Goth	Undeveloped	Low	200 - 400	
53	Goth Khairiyo Gabol	Undeveloped	Low	200 - 400	
54	Goth Mullah Arzi Baloch	Undeveloped	Low	200 - 400	
55	Goth Arbab Gabol	Undeveloped	Low	200 - 400	
56	Goth Jumma Mario Gabol	Undeveloped	Low	200 - 400	
57	Goth Ali Muhammad Gabol	Undeveloped	Low	200 - 400	
58	Goth Kheer Thar	Undeveloped	Low	200 - 400	
59	Goth Imam Bux	Undeveloped	Low	200 - 400	
60	Goth usman Allah Rakhio	Undeveloped	Low	200 - 400	
61	Goth Soomar	Undeveloped	Low	200 - 400	
62	Goth Noor Muhammad	Undeveloped	Low	200 - 400	
63	Goth Alo Gabol	Undeveloped	Low	200 - 400	
64	Goth hamza Gabol	Undeveloped	Low	200 - 400	
65	Goth Bijar Gabol	Undeveloped	Low	200 - 400	
66	Goth nangar Gabol	Undeveloped	Low	200 - 400	
67	Goth Jogi	Undeveloped	Low	200 - 400	
68	Goth jumma Gabol	Undeveloped	Low	200 - 400	
69	Goth Ishaq Baloch	Undeveloped	Low	200 - 400	
70	Goth nawaz Ali Gondal	Undeveloped	Low	200 - 400	
71	Goth meer khan Gondal	Undeveloped	Low	200 - 400	
72	Goth Abdul hakeem Gabol	Undeveloped	Low	200 - 400	
73	Goth Arbab Gabol	Undeveloped	Low	200 - 400	
74	Goth Rozi Gondal	Undeveloped	Low	200 - 400	
75	Goth pario Gondal	Undeveloped	Low	200 - 400	
76	Goth Unhar	Undeveloped	Low	200 - 400	
77	Goth Nosherewan Gondal	Undeveloped	Low	200 - 400	
78	Goth Imam Bux Gondal	Undeveloped	Low	200 - 400	
79	Goth Depar Gondal	Undeveloped	Low	200 - 400	
80	Goth Dad Muhammad Godal	Undeveloped	Low	200 - 400	
81	Goth Adam Gabol	Undeveloped	Low	200 - 400	
82	Raboo Gondar Goth	Undeveloped	Low	200 - 400	
83	Goth Andul Rehman Chutto	Undeveloped	Low	200 - 400	
84	bacho Shaikh Goth	Undeveloped	Low	200 - 400	
85	Goth majno	Undeveloped	Low	200 - 400	
86	Goth Safar Khoso	Undeveloped	Low	200 - 400	
87	Goth Siraj Ahmed Baloch	Undeveloped	Low	200 - 400	
88	Goth Ameer Bux Gabol	Undeveloped	Low	200 - 400	
89	Goth lal Bux kachelo	Undeveloped	Low	200 - 400	
90	Goth Saleh Muhammad	Undeveloped	Low	200 - 400	
91	Goth Muhammad Siddiq	Undeveloped	Low	200 - 400	
92	Goth Deen Muhammad	Undeveloped	Low	200 - 400	
93	Goth Morio Faqeer	Undeveloped	Low	200 - 400	
94	Goth Kamal Khan Jhokhio	Undeveloped	Low	200 - 400	
95	Goth Ali Muhammad	Undeveloped	Low	200 - 400	
96	Goth Abdul Kareem	Undeveloped	Low	200 - 400	
97	Goth Maindad	Undeveloped	Low	200 - 400	
98	Goth Shakar Gabol	Undeveloped	Low	200 - 400	
99	Goth Waja Ibrahim Baloch	Undeveloped	Low	200 - 400	
100	Goth Hadi Bux Gabol	Undeveloped	Low	200 - 400	
101	Goth Sufaan Jokhio	Undeveloped	Low	200 - 400	
102	Goth Haji Ali Muhammad	Undeveloped	Low	200 - 400	
103	Goth haji barad	Undeveloped	Low	200 - 400	
104	Goth Abdul Hakeem Gabol	Undeveloped	Low	200 - 400	
105	Goth Fota Khan Gabol -1	Undeveloped	Low	200 - 400	
106	Goth Nawaz Ali Gondar	Undeveloped	Low	200 - 400	
107	Goth Pehlwan Jokhio	Undeveloped	Low	200 - 400	
108	Goth Ismail Rind	Undeveloped	Low	200 - 400	
109	Goth Haji Ibrahim	Undeveloped	Low	200 - 400	
110	Goth Khan Muhammad	Undeveloped	Low	200 - 400	
111	Goth naik Muhammad	Undeveloped	Low	200 - 400	
112	Goth Saleh Muhammad Jokhio	Undeveloped	Low	200 - 400	
113	Goth Mubarak Brohi	Undeveloped	Low	200 - 400	
114	Goth usman Mari	Undeveloped	Low	200 - 400	
115	Goth haji Peer Muhammad	Undeveloped	Low	200 - 400	
116	Goht Murad Ali Bagh	Undeveloped	Low	200 - 400	
117	Goth Wali muhammad baloch	Undeveloped	Low	200 - 400	

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118	Ameer Bux Kachelo	Undeveloped	Low	200 - 400	
119	Goth Abdullah Gabol	Undeveloped	Low	200 - 400	
120	Goth Foto Gabol- 2 Super Highway	Undeveloped	Low	200 - 400	
121	Goth Ramja Faqeer	Undeveloped	Low	200 - 400	
122	Goth Hashim Gabol	Undeveloped	Low	200 - 400	
123	Goth Murad Gabol	Undeveloped	Low	200 - 400	
124	Goth Jaro Chutto	Undeveloped	Low	200 - 400	
125	Goth Suleman Geer	Undeveloped	Low	200 - 400	
126	Goth Ismail Brohi	Undeveloped	Low	200 - 400	
127	Goth Ghulam Rasool Brohi	Undeveloped	Low	200 - 400	
128	Goth Murad Ali Gabol	Undeveloped	Low	200 - 400	
129	Goth Lal Muhammad Mari	Undeveloped	Low	200 - 400	
130	Goth haji Noor Muhammad	Undeveloped	Low	200 - 400	
131	bai Khan Buro Goth	Undeveloped	Low	200 - 400	
132	Baboo Goth	Undeveloped	Low	200 - 400	
133	Wali Mauhammad Bakak	Undeveloped	Low	200 - 400	
134	main Wasaiyo Goth (Haji leemo)	Undeveloped	Low	200 - 400	
135	Thohar Kanaro Goth	Undeveloped	Low	200 - 400	
136	Puno Kanaro Goth	Undeveloped	Low	200 - 400	
137	Gul Muhammad Kanaro Goth	Undeveloped	Low	200 - 400	
138	bhiryo (paryal Kanaro)	Undeveloped	Low	200 - 400	
139	Yusuf kanaro Goth	Undeveloped	Low	200 - 400	
140	Abdullah Kanaro Goth	Undeveloped	Low	200 - 400	
141	hashim kanaro Goth	Undeveloped	Low	200 - 400	
142	Ilyar kanaro Goth	Undeveloped	Low	200 - 400	
143	Kahir Muhammad kanaro Goth	Undeveloped	Low	200 - 400	
144	Sheedo Brohi Goth	Undeveloped	Low	200 - 400	
145	Ali Muhammad Goth	Undeveloped	Low	200 - 400	
146	Qasim kanaro Goth	Undeveloped	Low	200 - 400	
147	Yar Muhammad Kanaro Goth	Undeveloped	Low	200 - 400	
148	Ramzam Chuto Goth	Undeveloped	Low	200 - 400	
149	Ayub kaanro Goth	Undeveloped	Low	200 - 400	
150	Mehar (Mitho Kanaro Goth )	Undeveloped	Low	200 - 400	
151	Jabal kanaro Goth	Undeveloped	Low	200 - 400	
152	bakhar Kanaro Goth	Undeveloped	Low	200 - 400	
153	Dhatho Goth	Undeveloped	Low	200 - 400	
154	Ismail Goth	Undeveloped	Low	200 - 400	
155	Main Nohani Goth	Undeveloped	Low	200 - 400	
156	Sain Dad Goth	Undeveloped	Low	200 - 400	
157	Peer Bux (Allah Dino) Chuto Goth	Undeveloped	Low	200 - 400	
158	Raboo Goth	Undeveloped	Low	200 - 400	
159	Raboo Goth -2	Undeveloped	Low	200 - 400	
160	Muhammad Ganjo Goth	Undeveloped	Low	200 - 400	
161	Baloch Khan Goth	Undeveloped	Low	200 - 400	
162	Ali Nihani Goth	Undeveloped	Low	200 - 400	
163	Karo Ahmedani Goth	Undeveloped	Low	200 - 400	
164	Soni Muhammad Nohani Goth	Undeveloped	Low	200 - 400	
165	Dost Muhammad Ahmedani Goth	Undeveloped	Low	200 - 400	
166	kahmiso Goth	Undeveloped	Low	200 - 400	
167	Faiz Muhammad Goth	Undeveloped	Low	200 - 400	
168	jan Muhammad Goth	Undeveloped	Low	200 - 400	
169	Allah Dino Bakak Goth	Undeveloped	Low	200 - 400	
170	Ahmed Ahmedani Goth	Undeveloped	Low	200 - 400	
171	Bano Ganjo Goth	Undeveloped	Low	200 - 400	
172	Haji Karo Goth	Undeveloped	Low	200 - 400	
173	Achar Goth	Undeveloped	Low	200 - 400	
174	Goth bandi (Gul Shoro)	Undeveloped	Low	200 - 400	
175	Goth Ali Muhammad	Undeveloped	Low	200 - 400	
176	Bakhar Kahskheli Goth	Undeveloped	Low	200 - 400	
177	Goth Manladho Saddiq Goth	Undeveloped	Low	200 - 400	
178	Kareem Bux Goth	Undeveloped	Low	200 - 400	
179	Haji Bux Goth	Undeveloped	Low	200 - 400	
180	Haji Karoo Qasim Goth	Undeveloped	Low	200 - 400	
181	Ial Muhammad Bakak Goth	Undeveloped	Low	200 - 400	
182	Nondo Boro Goth	Undeveloped	Low	200 - 400	
183	Bachal Goth	Undeveloped	Low	200 - 400	
184	Khamiso Khaskheli Goth	Undeveloped	Low	200 - 400	
185	Sanyasi Boro Goth	Undeveloped	Low	200 - 400	
186	Pathan Boro Goth	Undeveloped	Low	200 - 400	



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187	Hussain Ali Bakak Goth	Undeveloped	Low	200 - 400	
188	Raza Muhammad Goth	Undeveloped	Low	200 - 400	
189	Muhammad Bux Goth	Undeveloped	Low	200 - 400	
190	Yar Muhammad bandigo Goth	Undeveloped	Low	200 - 400	
191	Ghulam Qadir bandigo	Undeveloped	Low	200 - 400	
192	Agha Dhani Bux Goth	Undeveloped	Low	200 - 400	
193	H. Sher Muhammad bandigo Goth	Undeveloped	Low	200 - 400	
194	Haji Soofan Bandigo Goth	Undeveloped	Low	200 - 400	
195	Haji Waryal Bandigo Goth	Undeveloped	Low	200 - 400	
196	Allah Bux Bandigo Goth (Moidan)	Undeveloped	Low	200 - 400	
197	Jio Kango Goth	Undeveloped	Low	200 - 400	
198	Faiz Muhammad Godar Goth	Undeveloped	Low	200 - 400	
199	Mullah Fsaiz Muhammad Bakak Goth	Undeveloped	Low	200 - 400	
200	Ibrahim Bakak Goth	Undeveloped	Low	200 - 400	
201	Haji Dodo Bakak Goth	Undeveloped	Low	200 - 400	
202	Athar Bakak Goth	Undeveloped	Low	200 - 400	
203	yaqoob Bakak Goth	Undeveloped	Low	200 - 400	
204	Usman Bakak Goth	Undeveloped	Low	200 - 400	
205	Main Bakak Goth	Undeveloped	Low	200 - 400	
206	Rooh Khaskheli Goth	Undeveloped	Low	200 - 400	
207	Jan Muhammad Wisryo Goth	Undeveloped	Low	200 - 400	

### UC-5 Songal

The UC-5 Songal consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gulshan-e-Memar	Developed	Middle-High	120-200-400	
2	Taysar Town	Developed	Middle-High	80-120	
3	Lyari Expressway	Developed	Low-Middle	80-120	
4	Khuda ki Basti	Developed	Low-Middle	80-120	
5	Haji Sain Rakhio Jokhio	Undeveloped	Low	120-200-300	
6	Ghulam Muhammad	Undeveloped	Low	120-200-300	
7	Qadir Jokhio	Undeveloped	Low	120-200-300	
8	Sohrab Faqeer	Undeveloped	Low	120-200-300	
9	Chaniesar	Undeveloped	Low	120-200-300	
10	Haji Jabli	Undeveloped	Low	120-200-300	
11	Ghulam Ali	Undeveloped	Low	120-200-300	
12	Sofan Jokhio	Undeveloped	Low	120-200-300	
13	Haji Allah Bux Khaskheli	Undeveloped	Low	120-200-300	
14	Darya Khan	Undeveloped	Low	120-200-300	
15	Urs Mstani	Undeveloped	Low	120-200-300	
16	Haji Ramzan Baloch	Undeveloped	Low	120-200-300	
17	Ghafoor Brohi	Undeveloped	Low	120-200-300	
18	Abul Rehman Gabol	Undeveloped	Low	120-200-300	
19	Raza Muhammad	Undeveloped	Low	120-200-300	
20	Angara	Undeveloped	Low	120-200-300	
21	Haji Nabi Dad Brohi	Undeveloped	Low	120-200-300	
22	Ali Muhammad Khaskheli	Undeveloped	Low	120-200-300	
23	Rustam Baag	Undeveloped	Low	120-200-300	
24	Ramzan Lasi	Undeveloped	Low	120-200-300	
25	Rehmatullah Khaskheli	Undeveloped	Low	120-200-300	
26	Shaikh Ghulam Rasool	Undeveloped	Low	120-200-300	
27	Bachal	Undeveloped	Low	120-200-300	
28	Muhammad Ali Brohi	Undeveloped	Low	120-200-300	
29	Gohram Brohi	Undeveloped	Low	120-200-300	
30	Haji Dost Muhammad Bhanmbro	Undeveloped	Low	120-200-300	
31	Hamal Khan Bhanmbro	Undeveloped	Low	120-200-300	
32	Bhul Khaskheli	Undeveloped	Low	120-200-300	
33	Wali Muhammad	Undeveloped	Low	120-200-300	
34	Hoot Baag	Undeveloped	Low	120-200-300	
35	Waja Ishaq	Undeveloped	Low	120-200-300	
36	Waja Siddiqe	Undeveloped	Low	120-200-300	
37	Rasool Bux Broo	Undeveloped	Low	120-200-300	

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38	Abdul Rahim Baloch	Undeveloped	Low	120-200-300	
39	Abdullah Gabool	Undeveloped	Low	120-200-300	
40	Mula Dad Gabool	Undeveloped	Low	120-200-300	
41	Tharo Mengal	Undeveloped	Low	120-200-300	
42	Hussain Brohi	Undeveloped	Low	120-200-300	
43	Pir Bux Brohi	Undeveloped	Low	120-200-300	
44	Abbas Brohi	Undeveloped	Low	120-200-300	
45	Sawan Khaskheli	Undeveloped	Low	120-200-300	
46	Mulla Soomar	Undeveloped	Low	120-200-300	
47	Pir Bux Brohi	Undeveloped	Low	120-200-300	
48	Naik Muhammad	Undeveloped	Low	120-200-300	
49	Raza Muhammad Brohi	Undeveloped	Low	120-200-300	
50	Dil Murad Khaskheli	Undeveloped	Low	120-200-300	
51	Master Ghulam Qadir	Undeveloped	Low	120-200-300	
52	Ahmed	Undeveloped	Low	120-200-300	
53	Mulla Hussain Brohi	Undeveloped	Low	120-200-300	
54	Umar Brohi	Undeveloped	Low	120-200-300	
55	K.D.A Colony	Developed	Low-Middle	120-200	
56	Hebat Khaskheli	Developed	Low-Middle	120-200	
57	Babo Patani	Developed	Low-Middle	120-200	
58	Phul Patani	Developed	Low-Middle	120-200	
59	Karo	Developed	Low-Middle	120-200	
60	Qadir Bux Brohi	Developed	Low-Middle	120-200	
61	Murad Brohi	Developed	Low-Middle	120-200	
62	Khero Brohi	Developed	Low-Middle	120-200	
63	Karam	Developed	Low-Middle	120-200	
64	Essa Brohi	Developed	Low-Middle	120-200	
65	Haji Sain Dad Brohi	Developed	Low-Middle	120-200	
66	Ahmed Brohi	Developed	Low-Middle	120-200	
67	Rozi Brohi	Developed	Low-Middle	120-200	
68	Hussain Brohi	Developed	Low-Middle	120-200	
69	Yaqoob Brohi	Developed	Low-Middle	120-200	
70	Khawasti Brohi	Developed	Low-Middle	120-200	
71	Muhammad Suleman Brohi	Developed	Low-Middle	120-200	
72	Nuko Brohi	Developed	Low-Middle	120-200	
73	Muhammad Hassan Brohi	Developed	Low-Middle	120-200	
74	Ghazi Brohi	Developed	Low-Middle	120-200	
75	Haji Mund Brohi	Developed	Low-Middle	120-200	
76	Gohram Brohi	Developed	Low-Middle	120-200	
77	Yar Muhammad Brohi	Developed	Low-Middle	120-200	
78	Arz Muhammad	Developed	Low-Middle	120-200	
79	Lal Bux	Developed	Low-Middle	120-200	
80	Rasool Bux	Developed	Low-Middle	120-200	
81	Jalai	Developed	Low-Middle	120-200	
82	Haji Jorak	Developed	Low-Middle	120-200	
83	Kareem Dad/Ghulam Mohd	Developed	Low-Middle	120-200	
84	Yaqoob	Developed	Low-Middle	120-200	
85	Jangi	Developed	Low-Middle	120-200	
86	Khuda Bux	Developed	Low-Middle	120-200	
87	Ali Muhammad	Developed	Low-Middle	120-200	
88	Shehdo	Developed	Low-Middle	120-200	
89	Neko	Developed	Low-Middle	120-200	
90	Haji Bhero	Developed	Low-Middle	120-200	
91	Adam Brohi	Developed	Low-Middle	120-200	
92	Allah Dino Brohi	Developed	Low-Middle	120-200	
93	Qadir Bux Brohi	Developed	Low-Middle	120-200	
94	Gull Muhammad	Developed	Low-Middle	120-200	
95	Noor Muhammad Lasi	Developed	Low-Middle	120-200	
96	Muhammad Ali	Developed	Low-Middle	120-200	
97	Abdul Rahim Brohi	Developed	Low-Middle	120-200	
98	Ahmed Bandeja	Developed	Low-Middle	120-200	
99	Qadir Bux Brohi	Developed	Low-Middle	120-200	
100	Yar Muhammad Brohi	Developed	Low-Middle	120-200	
101	Karim Bux Brohi	Developed	Low-Middle	120-200	
102	Ali Muhammad Brohi	Developed	Low-Middle	120-200	
103	Mulvi Abdul Qadir Brohi	Developed	Low-Middle	120-200	
104	Haji Jumma Brohi	Developed	Low-Middle	120-200	
105	Muhammad Safar Brohi	Developed	Low-Middle	120-200	

**UC-6 Maymarabad**

The UC-6 Maymarabad consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	L-1, Surjani	Developed	Lower/Middle/High Class	80-120	
2	5-C, Surjani	Developed	Lower/Middle/High Class	80-120	
3	5-D, Surjani	Developed	Lower/Middle/High Class	80-120	
4	5-B, Surjani	Developed	Middle/High	120-200	
5	4-A, Surjani	Developed	Middle/High	80-120	
6	5-E, Surjani	Developed	Middle/High	120-200	
7	KDA Flat, Surjani	Developed	Middle/High	Flat	
8	4-B, Surjani	Developed	Middle/High	80-120-200	
9	4-C, Surjani	Developed	Middle/High	400-500	
10	4-D, Surjani	Developed	Middle/High	80-120	
11	7-B, Surjani	Developed	Middle/High	80-120	
12	7-A, Surjani	Developed	Middle/High	80-120-200	
13	7-D, Surjani	Developed	Middle/High	80-120	
14	7-C, Surjani	Developed	Middle/High	80-120	
15	Cattel Colony-9, Surjani	Developed	Middle/High	200-400-600	
16	Sec-8, Surjani	Developed	Middle/High	120	
17	Abdullah Banglos, Surjani	Developed	Middle/High	Flat/120	
18	Anar Kali	Developed	Middle/High	80/120	
19	11-A, Surjani	Developed	Middle/High	80-120	
20	Sec-10/05, Surjani	Developed	Middle/High	80-120	

**UC-7 Yousuf Goth**

The UC-7 Yousuf Goth consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Yousuf Goth	Developed	Lower/Middle	80 - 120 - 240	
2	Afridi Goth	Developed	Lower/Middle	80 - 120 - 240	
3	AbdulRehman Goth	Developed	Lower/Middle	80 - 120 - 240	
4	Siddique Goth	Developed	Lower/Middle	80 - 120 - 240	
5	Nasri Goth	Developed	Lower/Middle	80 - 120 - 240	
6	Stylish Garden	Developed	Lower/Middle	80 - 120 - 240	
7	Haleem garden	Developed	Lower/Middle	80 - 120 - 240	
8	Yaro Goth	Developed	Lower/Middle	80 - 120 - 240	
9	Kaneez Fatima Society	Developed	Lower/Middle	80 - 120 - 240	

**UC-8 Manghopir**

The UC-8 Manghopir consists of following localities/areas. The infrastructural condition, Housing Units types, income groups and names of localities in the area detailed below:-

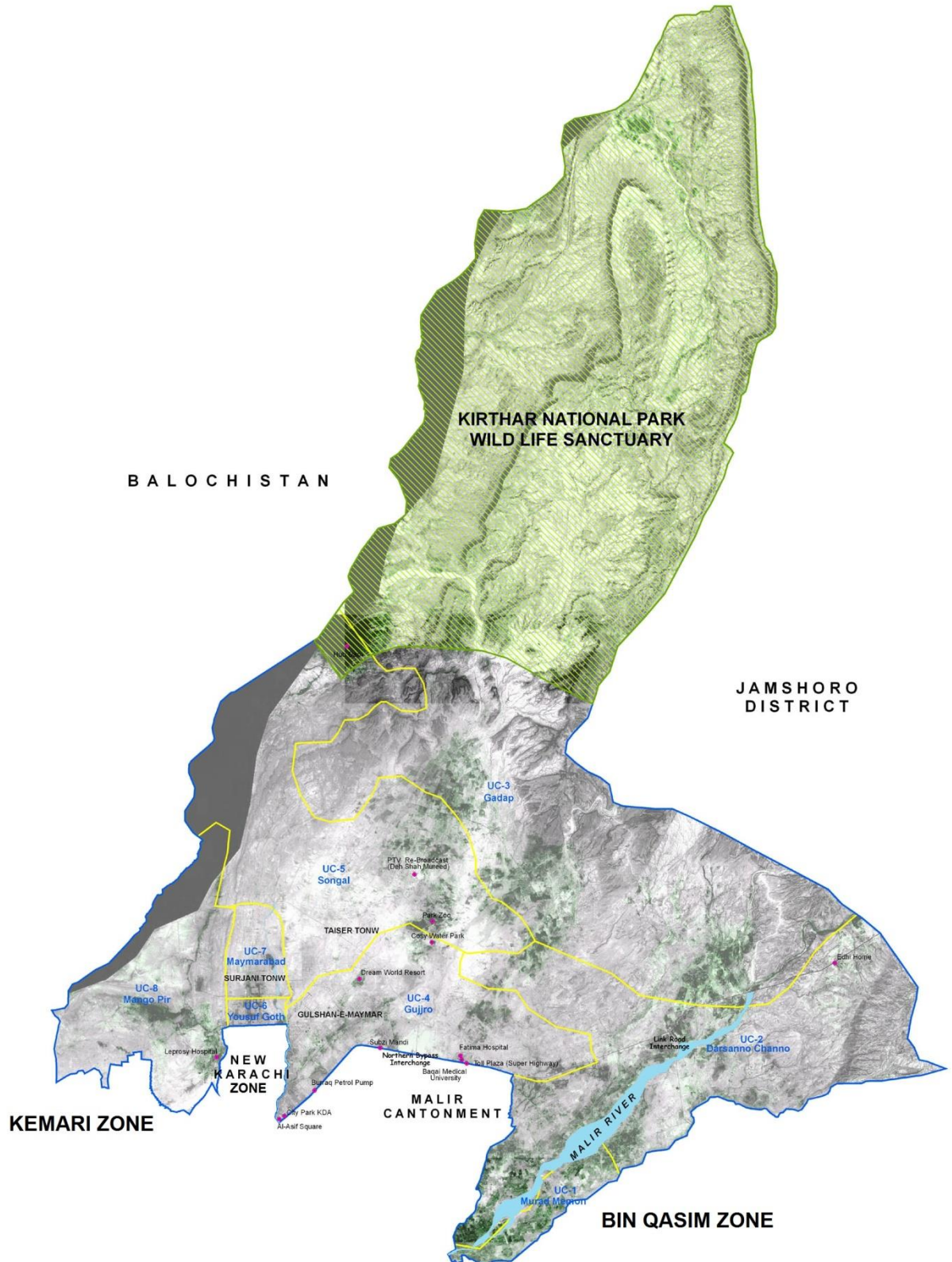
Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Pakhtoon Abad Sector 1-2	Developed	Low	120-200	
2	Gulzarabad	Developed	Low	120-200	
3	Haji Hamza Goth	Developed	Low	80-100	
4	Allha Bachayo Goth	Undeveloped	Low	80-100	
5	Mushki Para	Developed	Low	120-200	
6	Noor Din Goth	Undeveloped	Low	120-200	

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7	Lasi para	Undeveloped	Low	60	
8	Mullah Jan Muhammad Goth	Undeveloped	Low	80-100	
9	Al Madina Town	Developed	Low-Middle	120-150	
10	Sarmastani Para	Undeveloped	Low	80-100	
11	Makrani Para	Undeveloped	Low	80-100	
12	Haji Allah Bux Goth	Undeveloped	Low	100-150	
13	Umer Goth	Developed	Low	100-150	
14	Mari Goth	Undeveloped	Low	150-200	
15	Haroonabad Goth	Undeveloped	Low	100-120	
16	Yaqoob Shah Basti	Developed	Low-Middle	120-200	
17	Sabeel Goth	Undeveloped	Low	100-120	
18	Manghopir Goth	Undeveloped	Low	60-80	
19	Salkanabad Goth	Undeveloped	Low	60-80	
20	Afridi Goth	Undeveloped	Low	80-120	
21	Sheedi Goth	Undeveloped	Low	150-200	
22	Meer Muhammad Goth	Undeveloped	Low	200-300	
23	Aliabad Goth	Undeveloped	Low	80-100	
24	Ghazi Villas	Developed	Low-Middle		Flat
25	Moon City	Developed	Low-Middle	120-200	
26	Wangi Goth	Undeveloped	Low	300-400	
27	Ameer Bux Goth	Undeveloped	Low	200-300	
28	Haji Mehmood Goth	Undeveloped	Low	200-300	
29	Hassan Goth	Undeveloped	Low	200-300	
30	Abdul Rehman Goth	Undeveloped	Low	200-300	
31	Jam Chakro Goth	Undeveloped	Low	100-120	
32	Umer Goth	Undeveloped	Low	80-100	
33	Gull Muhammd Goth	Undeveloped	Low	80-100	
34	Sain Dad Goth	Undeveloped	Low	80-100	
35	Rasool Bux Goth	Undeveloped	Low	150-200	
36	KDA Colony	Developed	Middle	120-200-300	
37	Malik Goth	Undeveloped	Middle	150-200	
38	Ramzan Goth	Undeveloped	Low	80-120	
39	Umer Goth	Undeveloped	Low	80-120	
40	Shaki Goth	Undeveloped	Low	150-200	
41	Zeboon Goth	Undeveloped	Low	150-200	
42	Deh Mai Gari Abullah Goth	Undeveloped	Low	200-300	
43	Khair Abad	Undeveloped	Low	150-200	
44	Deh Halkani	Undeveloped	Low	150-200	
45	Ghazi Goth	Undeveloped	Low	150-200	
46	Dildar Goth	Undeveloped	Low	150-200	
47	Ali Muhammad Goth	Undeveloped	Low	150-200	
48	Rais Goth	Undeveloped	Low	150-200	
49	Hazrat Abbas Goth	Undeveloped	Low	150-200	
50	Munshi Allah Bux Goth	Undeveloped	Low	150-200	
51	Haji Abdul Khaliq Goth	Undeveloped	Low	150-200	

3.9. Maps of Gadap Zone

## GADAP ZONE



**3.10. Existing Solid Waste Management System in DMC Malir & District Council Karachi**

i. Door-to-Door Collection.

At present system for collection of municipal solid waste at doorstep does not exist in DMC Malir & District Council Area.

Residents of DMC Malir & District Council area throw their household waste to nearby katchrakundi (dustbin) anytime during the day without any schedule. The shopkeepers of commercial areas and attendants of shopping markets, and residents of DMC Malir & District Council usually throw garbage at the corner of each street and in front of shops etc. No any strategy or collection plan for door-step collection exists in DMC Malir & District Council in general. No MSW collection system in the industrial area exists though a considerable quantum of MSW is generated in the industrial area too.

ii. Street Sweeping.

Main roads, and lanes in DMC Malir & District Council are cleaned manually using brooms and brushes and the sweeping stuff is kept in the form of number of small heaps on the sides of kerbs and on road sides, which is then lifted with the help of Belcha and transported to nearest dustbin site/collection point using wheelbarrow/handcarts. Sweeping stuff is normally thrown into the dustbin. Sweeping in urban parts is done normally in two shifts i.e. 6:00 AM to 10 AM and then 2:00PM to 5:00PM. Mechanical sweeping is not done in DMC Malir & District Council except on some occasions on the main roads when such machines are provided by KMC.

iii. Washing of Main and Important Roads.

Currently no such practice is being carried out.

iv. Transportation of MSW from Dustbin/Collection points to GTS or nearest Landfill Sites.

Garbage vehicles i.e. Arm Roll, Compactors, Dump Trucks, or Tractor Trolley designated to each UC of the Zone collects and transports waste from collection points/dustbins to GTS of the Zone. In some cases MSW is transported to nearest landfill sites. Each vehicle is supposed to make 3 to 4 trips a day to clear garbage from dustbins/collection points but this is rarely done. Complete lifting of garbage from the zones could not be made due to unavailability of required numbers of vehicles. Usually containers of 4 to 7 Ton capacity are placed at collection points/dustbins, however in some areas of DMC Malir & District Council garbage is dumped at open places, such garbage is lifted using loaders and bobcat type of machinery and labours using basket to pick and to load into refuse vans or compactor which is then transported to GTS of Zones. The machinery for lifting

and transportation of MSW available with DMC Malir & District Council is very old and not compatible with the machines usually required for an efficient MSW lifting and transportation system.

v. Location of GTS of the Zones of DMC Malir & District Council Karachi.

In DMC Malir informal GTS of Bin Qasim Zone and Malir Zone exists within the area. Informal GTS for Gadap Zone in District Council area exists within the jurisdiction of Gadap Zone.

**3.11. Existing System of Offal Collection & Disposal in DMC (Malir) & District Council Area**

On the eve of Holy festival of Eid-ul-Azha every year, thousands of animals, i.e. goats, lambs, sheep, cows, bulls and camels are offered as a sacrifice. These sacrifices is done (as custom) either jointly or individually on the door step or within the premises, or on the roads sides and open grounds. The offal and other residuals like bone skin parts offals and other intestinal organs etc. are thrown at the door step, road side, in the bushes, open grounds and collection points, dustbins sites etc. creating an unclean environment with a pungent odor of blood which is witnessed almost in each area on this event.

This situation is dealt with MSW Management of each zone efficiently and effectively, initiating a specific campaign under an offal collection plan. A day before the event clearing the garbage from dustbins sites is done. The special offal collection campaign usually started just after Eid-ul-Azha prayer. The offals and other residual animal waste is then collected through machinery within the zones including hired rental vehicles and disposed of in the pits already excavated at designated places where the offal are buried in a manner that create no nuisance for the surrounding. Sprinkling the lime powder and other insecticidal / perfume spray is also done to create pleasant atmosphere.

The campaign is managed in such a manner that the area is made clean and clear by the evening of each day event which continuous for three continuous day. An estimated number of offals that is collected and buried in DMC Malir & District Council Area is detailed here under:

Days of Eid-ul-Azha	Bin Qasim	Malir	Gadap
1 <sup>st</sup> Day	26864	15000	28091
2 <sup>nd</sup> Day	21000	31215	26105
3 <sup>rd</sup> Day	8118	13969	21010
Total	55982	64001	75206
Total	DMC Malir 116166 No.		75206

### **3.12. Problem & Short Coming in Existing System**

- Waste has never been assigned priority by Government.
- Non-existence of Door to Door Collection System.
- Poor attendance of Sanitary Workers /Officials affecting street sweeping and waste disposal.
- Ineffective system of monitoring / reporting causing indiscriminate dumping of waste on open spaces and road sides, also causing delay in complaint redressal system.
- Deficient number of concrete dustbins (katchra kundi)/containers in most of the areas, resulting in open and scattered dumping of garbage.
- Irregular collection of garbage from community bins/collection points due to:
  - Poor Supervision.
  - Too many dustbins sites.
  - Defective, inappropriate and old garbage vehicles.
  - POL problems.
  - Political/labour Union intervention.
  - No fix timing of garbage vehicles to collect garbage from dustbin sites and transportation to landfill site.
  - Open transportation of garbage causing environmental pollution.
  - Encroachments, especially in markets / commercial areas causing difficulties in sweeping, collection and transportation to GTS /Land Fill Site. Hence the required number of trips is not achieved.
  - No proper GTS facility
  - Scavenging specially on open spaces and roadside dustbins causing scattering of garbage.
  - Existing rules with regards to SWM need to be reviewed, strengthened and enforced.
  - Lack of public awareness/ civic sense regarding SWM collection and disposal.
  - Lack of scientific approach for integrated SWM.



## **Section IV**

# **Proposed Plan for DMC Malir & District Council Area Gadap Zone**

**Proposed Plan for DMC Malir (DMC Malir Area) & District Council Area Gadap Zone**

**4.1 Front End Collection Plan (Proposed Plan)**

Front End Action Plan. It Includes followings scope of Work and services:

1. Door to door collection and revamping of bin system.
2. Sweeping of roads, streets, lane, footpath, medians and open spaces and sweeping waste collection and disposal.
3. Washing of important roads as and when required including on special occasions.
4. Lifting and transportation MSW from dustbins sites & collection points to designated GTS.
5. Scientific monitoring and tracking system for entire management and operation plan.
6. Community awareness programme and its implementation.

**4.2 Door to door collection mechanism**

Door to door collection for Front End Collection Plan/mechanism is categorized as:

**(a) Block Collection.**

Wherein waste collecting vehicles with one or two waste collecting workers move around the residential blocks on a specified time each day and sounds horns or rings bell and wait at intermediate location for residents to bring waste in polythene bags to the collection vehicles or where the workers with the collecting vehicles collect garbage in a basket at the door step of the residents and throw in the collecting vehicles, which is then disposed of to nearest dustbin site.

**(b) Door Step Collection.**

Wherein waste is left outside the property by the residents in plastic/polythene bags and picked up by waste collecting vehicles moving in and around the residential area at specific time each day or collected at door step by the sweepers every day, equipped with wheel barrow, handcart and disposed off to nearest dustbins sites.

**(c) Shared containers type collection.**

Wherein a container of suitable capacity is placed at an appropriate place within a residential block, apartment building market and shopping area and residents and other waste

generators put their waste stuff inside the container. These containers may be of hook and lifting type or may be bucket type with proper tipping arrangements, which are then emptied at by compaction container type compactor vehicles and then again placed at the location. However this operation is done as many times as required to keep the container free of garbage. The location where such containers are placed are kept cleaned and spelled out garbage is swept from the surrounding.

Any or all defined categories will be adopted under the front end collection plan for door to door collection keeping in view the demographics of the area, however for the purpose of guidance, sweeping methodology in various UCs of the Zones of DMC Malir & District Council Karachi is mentioned hereunder.

Plastic bag will be provided free of cost by contractor/operator to all residential units for the first two weeks only. The size and grade of polythene bag is given in the technical specification.

### Note.

Where block collection and door step collection is adopted, and where possible in case of shared container type collection, organic and inorganic Municipal Solid Waste are to be collected separately and transported to GTS in a manner that these two types of MSW be disposed of at GTS separately as directed by SSWMB officials and this practice is to be adopted in each zone. Organic and inorganic MSW is to be collected in different coloured bags and litterbins or containers as the case may be.

## Strategy for door to door collecting in various zones of DMC Malir

### Bin Qasim Zone

Name of UC		Door to door collection Strategy	Suggested Tools and Machinery for door-to-door collection type.								
<table border="1"><thead><tr><th>UC No.</th><th>UC Name</th></tr></thead><tbody><tr><td>1</td><td>Ibrahim Hayderi</td></tr><tr><td>2</td><td>Rehri</td></tr><tr><td>3</td><td>Cattle Colony</td></tr></tbody></table>		UC No.	UC Name	1	Ibrahim Hayderi	2	Rehri	3	Cattle Colony	<b>Shared Containers Type Collection</b> <ul style="list-style-type: none"><li>Steel Containers of appropriate size &amp; capacity must be placed at appropriate distance. When filled up, must be lifted and disposed of into a compactor vehicle and empty container must be placed again on the location. The operation of clearing the container be done at least twice a day or as</li></ul>	Details of buckets and bins, bin sizes, frequency of placement, tools to be utilized, and polythene bags are given in technical specification.  Details and type of
UC No.	UC Name										
1	Ibrahim Hayderi										
2	Rehri										
3	Cattle Colony										

4	Quaidabad	<p>many times as required to keep the container free of garbage</p> <ul style="list-style-type: none"> <li>Block Collection Strategy: Block collection may also be adopted in some areas, which are congested and thickly populated using small vehicles moving around the area on fixed timings along with one or two waste collecting workers.</li> </ul>	<p>garbage collecting and transporting vehicles, bin mechanism is given in technical specification.</p> <p>Small compactor vehicles or small Suzuki / pick up type trucks may be used.</p>
5	Landhi		
6	Gulshan-e-Hadeed		
7	Ghaghar		
<ul style="list-style-type: none"> <li>Low to Middle Income Group</li> <li>Congested areas</li> </ul>			

## Malir Zone

Name of UC		Door to door collection Strategy	Suggested Tools and Machinery for door to door collection type.																
<table><tr><th>UC No.</th><th>UC Name</th></tr><tr><td>1</td><td>Model Colony</td></tr><tr><td>2</td><td>Kala Bard</td></tr><tr><td>3</td><td>Saudabad</td></tr><tr><td>4</td><td>Khokhrapar</td></tr><tr><td>5</td><td>Jaffar e Tayyar</td></tr><tr><td>6</td><td>Gharabad</td></tr><tr><td>7</td><td>Ghazi Brohi</td></tr></table> <ul style="list-style-type: none"><li>Low to Middle Income Group</li><li>Congested areas</li></ul>		UC No.	UC Name	1	Model Colony	2	Kala Bard	3	Saudabad	4	Khokhrapar	5	Jaffar e Tayyar	6	Gharabad	7	Ghazi Brohi	<b>Shared Containers Type Collection</b> <ul style="list-style-type: none"><li>Steel Containers of appropriate size &amp; capacity must be placed at appropriate distance. When filled up, must be lifted and disposed of into a compactor vehicle and empty container must be placed again on the location. The operation of clearing the container be done at least twice a day or as many times as required to keep the container free of garbage</li><li>Block Collection Strategy: Block collection may also be adopted in some areas, which are congested and thickly populated using small vehicles moving around the area on fixed timings along with one or two waste collecting workers.</li></ul>	<p>Details of buckets and bins, bin sizes, frequency of placement, tools to be utilized, and polythene bags are given in technical specification.</p> <p>Details and type of garbage collecting and transporting vehicles, bin mechanism is given in technical specification.</p> <p>Small compactor vehicles or small Suzuki / pick up type trucks may be used.</p>
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**Gadap Zone District Council Area**

Name of UC		Door to door collection Strategy	Suggested Tools and Machinery for door to door collection type.																		
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## 4.3 Street Sweeping and Sweeping of Main Roads

### i) Classification / Type of Roads.

#### a. **Primary Main Roads.**

These are the main roads connecting different zones in a district (dual carriageway), planned and constructed on established engineering practices with proper road geometry, 3 or 4 lane carriageways.

#### b. **Secondary Main Roads.**

May be classified as main roads but secondary type, connecting various UCs in a Zone, mostly single carriageways, however in some parts double carriageway facility is included. Planned and constructed on normal engineering practices with or without outside footpaths, green belts, and median or edge stones and without proper road geometry, two to three lane single carriageways.

#### c. **Streets.**

These are internal roads, connecting various residential blocks, around markets and commercial areas mostly 2 lane single or sometimes double carriageways type with or without sidewalks. Constructed on conventional practice.

#### d. **Narrow lanes and streets.**

Paved or unpaved narrow internal streets in old resident areas, markets and around old commercial areas, single lane to double lane i.e. 10 to 20ft wide with or without sidewalks or edge stone.

### ii) Sweeping Methodology.

#### 1. **Conventional Type (i.e. manual).**

With the help of sweepers, using broom/brushes. The sweeping waste is collected through wheelbarrows transported and disposed of to nearby buckets containers with tipping arrangements.

#### 2. **Mechanical Type (i.e. using machine sweepers).**

Appropriate, vacuum type mechanical sweeping vehicles including built-in sweeping waste containing facility, shall be used. The sweeping waste shall be disposed of to nearest bucket or container having tipping arrangements.

### iii) Proposed Sweeping System under Front End Collection Plan

#### a) **Secondary Main Roads, Streets and Narrow Lanes. (Manual Sweeping)**

It is suggested that on secondary main roads, streets and on narrow lanes and streets manual sweeping be adopted along with wheelbarrows and Suzuki / Pickup type of vehicles to transport the

sweeping waste from the beat (area) to bucket or containers. Sweeping on internal streets of residential area may be done as per schedule, guideline given at technical specification. Whereas in markets / commercial areas and in bazaar type of market areas, sweeping is required two times in a day as mentioned in the schedule of sweeping at technical specification. Contractor must make its own schedule, for the purpose, however the area must be cleaned and cleared from garbage.

**b) Primary Main Roads and Secondary Road.  
(Mechanical Sweeping)**

Using mechanical sweepers of appropriate size and capacity for sweeping of these roads as enlisted is to be done. Sweeping stuff may be disposed of to nearest dustbin site or to GTS. Mechanical sweepers of self contained and vacuum type are best suited for the purpose.

**List of Primary and Secondary main Roads Mechanical Sweeping of District  
Municipal Corporation Malir**

**Primary Main Roads (Dual Carriageway)**

S No.	Name of Road	Length (KM)
<b>Bin Qasim Zone</b>		
1	FROM ABBOTT COMPANY TO MEMON HOTAL	0.335
2	SHAH LATIF TOWN DOUBLE ROAD LANDHI	0.500
3	METALLED OF ROAD BESIDE POLICE TRAINING CENTER LANDHI	0.500
4	METALLED OF DOUBLE ROAD SOORTY FACROTY LANDHI	3.000
5	METALLED OF ROAD SABOO GOTH GHAGGAR	1.000
6	METALLED NEW ALLAH BUX HIMAITY GOTH	1.000
7	MEALLED ROAD ALI MOHAMMAD JOKHIO GHAGGAR	1.000
8	METALLED ROAD GHULAM MOHAMMAD BALOUCH GHAGGAR	2.000
9	METALLED OF ROAD MAIN ALLAH WALI CHORANGI TO END DOUBLE ROAD GULSHAN-E-HADEED	1.750
10	METALLED OF ROAD MAIN ALLAH WALI CHORANGI TO KASHANA SIDE DOUBLE ROAD GULSHAN-E-HADEED	2.500
11	METALLED OF ROAD MAIN NATIONAL HIHWAY TO ALLAH WALI CHORANGI DOUBLE ROAD GULSHAN-E-HADEED	0.500
12	METALLED OF ROAD KESC COLONY TO PAHARI DOUBLE ROAD GULSHAN-E-HADEED	1.500
13	METALLED OF ROAD B-WALA DOUBLE GULSHAN-E-HADEED	0.750
14	METALLED OF ROAD PAHARI WITH MAIN NALLA TO MUSLIM BUS STOP GULSHAN-E-HADEED	0.750
15	METALLED OF ROAD AT ROAD NO.8 MUSLIM LEAGUE COLONY CATTLE COLONY	1.500

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16	METALLED OF ROAD AT ROAD NO.9 MUSLIM LEAGUE COLONY CATTLE COLONY	1.000
17	METALLED OF ROAD AT ROAD NO.10 MUSLIM LEAGUE COLONY CATTLE COLONY	1.000
18	METALLED ROAD AT RIND GOTH CATTLE COLONY	0.750
19	METALLED ROAD AT NEW FLATE LABOUR SQUARE	0.500
20	METALLED ROAD AT QASIM TOWN	1.000
<b>Malir Zone</b>		
1	Liaqat Ali Khan Road Madal Colony	1.500
2	Kala Board to Sauadabad (KalaBoard Road)	3.000
3	Sauadabad to Ndi Kinara (Khokhrapar)	3.000
4	Malir City to Sauadbad (Malir City Road)	3.000
5	Khokhrapar No-01 to KDA Turning (Post office Road)	1.210
6	Khokhrapar No-02 to Government Hospital	0.500
7	Jinnah Squire to Liaqat Market	0.400
8	Dak khana Road to Police Station Khokhrapar	0.760
9	Khokhrapar No-05 to UC Office Road	0.510
	<b>Total</b>	<b>36.715</b>

## Secondary main roads (Single Carriageway)

<b>S No.</b>	<b>Name of Road</b>	<b>Length (KM)</b>
<b>BIN QASIM ZONE</b>		
1	METALLED ROAD FROM MAIN HIGHWAY ROAD TO MASJID TO KOHISTAN P.C.O SHOP CHIRAGH COLONY	0.487
2	METALLED ROAD FORM TELENOR OFFICE TO WAQAR MEMON HOUSE	0.396
3	METALLED ROAD OF MAIN BAZAR ROAD FROM NATIONAL HIGHWAY TO HARIS PUBLIC SCHOOL	0.396
4	METALLED OF ROAD FROM MODREN T.V TO NAZEER MADI HOUSE	0.396
5	METALLED CROSS ROAD MADINA COLONY AND RAILWAY TRACK TO PLAY GROUND GULISTAN SOCIETY	0.762
6	METALLED OF ROAD 03 NOS CROSS ROAD SCHOOL TO MECHINICAL SHOP	0.762
7	MAIN ROAD FROM PAKISTAN HOUSEING SOCIETY TO LANDHI STATION	1.097
8	METALLED ROAD FROM RADIO PAKISTAN DOUNDRY TO RAILWAY TRACK (ASKARY TOWN) KAZAFFI TOWN	1.341
9	BUKARI MASJID TO KAZAFI TOWN MAIN BAZAR	0.670
10	MEEZAN BANK TO PMT (JAVEED HAZARVI)	0.762
11	NAFEEZ BARKERY TO ROADIO PAKISTAN BOUNDARY WALL	0.670
12	HAFIZ CABIN TO RADIO PAKISTAN BOUNDARY WALL	0.670
13	QUETTA HOTEL TO RADIO STATION BOUNDARY WALL	0.670
14	RAJWANI FACTORY TO RADIO STATION BOUNDARY WALL	0.762
15	GULSHAN ASKARI MAIN ROAD MAZHAR QASIM TO RADIO STATION BOUNDARY WALL	0.609
16	ZAFFAR TOWN STREET FROM MAIN DOUBLE ROAD TO GRAVEYARD (06 Nos Street)	2.377



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17	ZAFAR TOWN CROSS STREETS FROM RAILWAY TRACK TO SHABIR TILE FACTORY ( 02 Nos Street)	0.914
18	IN LAEEQABADA MAIN ROAD TO BEECHAM COMPANY KHULDABAD	0.457
19	CATEX PUMP TO MADINA TOWN	0.457
20	GOST GALI MAIN QUAIDABAD STOP GULISTAN-E-ABBAS	1.660
21	OLD NATIONAL BANK TO JALBANI GOTH KHULDABAD	0.548
22	GHOSIA RESTURENT TO GULSHAN-E-ABBAS MADINA TOWN	1.660
23	MARVI GOTH INTERNAL ROAD IMAM BARGAH TO MUSLIM TANOLI	0.489
24	U.C OFFICE TO AYAZ THALA WALL	0.548
25	MARVI GOTH CROSS STREET	0.457
26	GALANDER GROUND GATE TO PUBLIC HEALTH CENTER	0.274
27	METALLED OF ROAD NATIONAL HIGHWAY TO CHOKANDI GRAVEYARD LANDHI	1.000
28	METALLED OF ROAD YOUSIF ARFANI GOTH LANDHI	1.500
29	METALLED OF ROAD AT RAZZAKABAD LANDHI	0.500
30	METALLED OF ROAD AT KOHI GOTH LANDHI	2.500
31	METALLED OF ROAD AT SALEH MOHAMMAD GOTH LANDHI	2.000
32	METALLED ROAD SHAH TOWN PHASE-1 & PHASE-2 GHAGGAR	2.000
33	METALLED ROAD AT SHAHNAWAZ GOTH AND NASRABAD D-1 ROAD GHAGGAR	3.000
34	METALLED ROAD GHAGGAR CITY ROAD GHAGGAR	1.500
35	METALLED OF ROAD PAHARI WITH MAIN NALLA TO MUSLIM BUS STOP GULSHAN-E-HADEED	0.750
36	METALLED OF ROAD MAIN NATIONAL HIHWAY TO ALLAH WALI CHORANGI DOUBLE ROAD GULSHAN-E-HADEED	0.500
37	METALLED OF ROAD KESC COLONY TO PAHARI DOUBLE ROAD GULSHAN-E-HADEED	1.500
38	METALLED OF ROAD B-WALA DOUBLE GULSHAN-E-HADEED	0.750
39	METALLED OF ROAD MAIN KDA LINE TO END OF KDA LINE BOTH SIDE SINGLE ROAD GULSHAN-E-HADEED	0.700
40	METALLED OF ROAD AT ROAD NO.01 COLONY CATTLE COLONY	1.500
41	METALLED OF ROAD AT ROAD NO.02 COLONY CATTLE COLONY	1.500
42	METALLED OF ROAD AT ROAD NO.03 COLONY CATTLE COLONY	1.500
43	METALLED OF ROAD AT ROAD NO.04 COLONY CATTLE COLONY	1.500
44	METALLED OF ROAD AT ROAD NO.05 COLONY CATTLE COLONY	1.500
45	METALLED OF ROAD AT ROAD NO.06 COLONY CATTLE COLONY	1.500
46	METALLED OF ROAD AT ROAD NO.07 COLONY CATTLE COLONY	1.500
47	METALLED OF ROAD AT ROAD NO.08 COLONY CATTLE COLONY	1.500
48	METALLED OF ROAD AT GATE NO.1 MARI BALOUCH GOTH LABOUR SQUARE CATTLE COLONY	1.000

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49	METALLED OF ROAD AT GATE NO.2 LABOUR SQUARE CATTLE COLONY	0.500
<b>Malir Zone</b>		
1	Moinabad Mehran Depo Road	1.220
2	Hussain Raza Road Modal Colony	1.030
3	Dawood Goth Road(Muhabbat Nagar to Bakra Piri)	0.520
4	Pir Mehfooz Road	1.250
5	Bakra Piri Malir Road	1.830
6	Jinnah Squire to Riaz Pan ( F South)	0.910
7	Urdu Nagar Chowk to Ammar Yasir	0.820
8	Degree Since Collage Road	0.850
9	Baiza Mosque Road	0.330
10	Urdu Nagar to Nishtar Squire ( Shamsheer Pan)	0.490
11	Khokhrapar No-04 to Mehran Hotal Khokhrapar	1.250
12	Sauadbad to Liaqat Market	1.090
13	Naeem Hospital Road (A Aera)	0.700
14	Nadi Kinara to KDA Turning)	3.500
15	Imran Electric to Nishtar Squire ( Saudia ground)	0.400
16	Shisha Gally Road	0.430
17	Tokan Stop to Liaqat Market	0.460
	<b>Total</b>	<b>69.017</b>

### **List of Primary and Secondary main Roads Mechanical Sweeping of District Council Karachi (Gadap Zone)**

#### **Primary Main Roads (Dual Carriageway)**

<b>S No.</b>	<b>Name of Road</b>	<b>Length (KM)</b>
1	Main Road from Super Highway K4 Chowrangi via Ahsanabad Chowrangi (Dual Carriageway)	10.00
2	Main Road Surjani Town (5000 Road) (Dual Carriageway)	8.00
3	main Road from Super Highway to Ayub Goth (4000 Road) (Dual Carriageway)	3.00
4	Ayub Goth to Ahsanabad Chowk (Dual Carriageway)	3.00
5	Main Road from Grid Station Ahsanabad to Maymarabad (Gate No.01) (Dual Carriageway)	3.50
6	Lasi Goth to Muhammadi Colony Main Road (Dual Carriageway)	4.00
7	Main Road Grid Station to Lyari Nadi (Dual Carriageway)	2.00
8	main Road Pakhtoonabad to Do Rasta (Dadex)	1.75
	<b>Total</b>	<b>35.25</b>

#### **Secondary main roads (Single Carriageway)**

<b>S No.</b>	<b>Name of Road</b>	<b>Length (KM)</b>
1	Main Road manghopir from Northern bypass	16.00
2	Main Road from Northern Baypass to Hub Dam	16.00

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3	Main Road Manghopir Mazar to Ishtima Gah	3.00
4	Main Road Abdullah Gabol Songal	2.50
5	Main Road Sohrab Faqir Goth	0.50
6	Internal Road of Machar Colony UC Gujro	3.00
7	Internal Road of Chutto Gabol	0.75
8	Internal Road of Chutto Gabol to Lasi Goth Market	1.00
9	Internal Road Jammam Gul Town	1.51
10	Internal Road Khadim Hussain Satrangi Goth	3.50
11	Internal Road Fakira Goth	4.00
12	Internal Road Jan Muhammad Goth	3.75
13	Internal Road Abdullah Gabol Goth	1.00
14	Internal Road of Ghulam Muhammad Jokhio & Haji Sain Rakhio Jaokhio Goth	5.50
15	Internal Road of Khuda ki Basti	5.75
16	Internal Road of Abdul Rehman Goth Angara Goth & surrounding village Shah Mureed	6.50
17	Internal Road of Sector 04 Surjani Maymarabad	8.00
18	Internal Road of Sector 05 Surjani Maymarabad	8.00
19	Internal Road of Sector 06 Surjani Maymarabad	8.00
20	Internal Road of Sector 07 Surjani Maymarabad	8.00
21	Internal Road of Sector 08 Surjani Maymarabad	4.00
22	Internal Road of Sector 09 Surjani Maymarabad	4.59
23	Internal Road of Sector 10 Surjani Maymarabad	6.00
24	Internal Road of Sector 11 Surjani Maymarabad	4.25
25	Internal Road of Sector 12 Surjani Maymarabad	5.25
26	Internal Road of Borfat Muhallah Yousuf Goth	0.75
27	Internal Road of Muhammaddi Goth	1.80
28	Internal Road of Nasiri Goth	1.00
29	Internal Road of Shadeb Pride	2.00
30	Internal Road of Makrani Para & Shaikh Farid Muhallah, Gulzarabad Sardar nooruddin Goth	6.75
31	Internal Road of Sultanabad & Mir Muhammad Goth haji Fazal Town	4.50
32	Internal Road of Yoqoob Shah Basti Mari Goth, Allah Bux Goth, Ghulam Muhammad Goth	5.50
33	Internal Road of Ramzan Goth, Arz Muhammad, Yar Muhammad Goth	5.00
34	Internal Road Kahirabad & Pir Bux Goth	4.50
35	Internal Road of Ghazi Goth near Ijtimah Gah	6.00
36	Internal Road of Pakhtoon abad	2.25
37	Internal Road of Abdullah Goth Mai Gari	1.75
38	Internal Road of Laro Goth to Gul Muhammad Qalanderi Goth near Noorani Hotel	2.50
39	Internal Road of Abdul Rehman Goth, Aziz Goth, Siddique Goth	4.50
40	Internal Road of Haji Muhammad Goth, Abdul Rehman Goth Ali abad	6.00
41	Main Road Darsano Channo	10.00
42	KN Academy Road / Dumlottee Road	12.00
43	Main Road Memon Goth to Khokhra par	3.00
44	Main Gadap Road form Super Highway to Gadap City	22.00
45	Main Road Mokhi from Super Highway to Dagar Hotel	22.00
46	Main Road manghopir from Northern bypass to Hub Dam (Dual Carriageway)	20.00

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47	Main Road Khair Abad to Northern Bypass	2.00
48	Main Road Northern Bypass to Mazar Mai Ghari	2.50
49	Main Road Kathor City from Super Highway	3.00
50	Kathore City to Haji Ibrahim Goth via Kathor	3.00
51	Main Road Deh Janai to Pathan Goth	20.00
52	Pakistan Hotel to Muhammadi Stadium	1.25
53	Jam Goth Stadium to Jam House	0.50
54	Main Road Brohi Muhalla upto KN Academy Road	2.00
55	Main Road Haji Ahmed Muhalla	1.25
56	Internal Road Haji Umed Ali Muhalla	0.75
57	Main Bazar Road to hashim Jokhio Goth	1.00
58	Dargah Yousuf Shah Road upto Bazar	0.57
59	Main Darsan Road to Jam Mahar Ali Goth	1.25
60	Main Road of Damba Goth via Bazar to Shaikh Muhalla	2.00
61	Zakria Goth from Super Highway to Malir Kantt	2.00
62	Main Darsana Road to Main Bazar Road	0.51
63	Internal Road of Siraj Ahmad Goth	0.50
64	Main Road of Safar Goth	0.75
65	Main Road from Super Highway to Mubarak Brohi Goth	1.00
66	main Road from Super Highway Adlo Machi Goth	1.00
67	Main Road from Super Highway Kathor City to Hji Ali Muhammad Baloch Goth	1.00
68	Internal Road of Konkar Gadap Stop	2.50
69	Radho Jokhio Goth Internal Road upto Mulla Arzi Goth	2.50
70	Gajjan Goth Internal Road	0.50
71	Internal Road at Bandija Stop	2.51
72	Internal Road at PUB Malir	2.75
73	Internal Road at Gadap City Hindu Muhallah & Mureed Goth	3.00
74	Internal Road Adjacent to Deh janai Haji Rasool Bux / Rahoo Gohram Goth	3.00
75	Internal Road of Chutto Gabol	0.75
76	Internal Road of Lasi Goth	0.75
77	Internal Road of Malir Agha Hotel to Machar Colony	1.25
	<b>Total</b>	<b>341.49</b>

**Proposed Machinery for Mechanical Sweeping and contained sweeping waste capacities under Front-end collection plan.**

**Mechanical Sweeper -B1**

- Type- Vacuum type wet brushing mechanism
- Maximum sweeping width 3.5 Meter
- Operating speed 5 to 10 KM Per Hour
- Contained sweeping waste capacity 8 to 10 cubic meter
- Water tank capacity 250 to 350 liters
- Total number of machine **Required= 08 Number**



- Type- Vacuum type wet brushing mechanism
- Maximum sweeping width 2 Meter
- Operating speed 5 to 8 KM Per Hour
- Contained sweeping waste capacity 2 to 3.5 cubic meter
- Water tank capacity 80 to 100 liters



## Proposed Machinery for Washing of Main Roads under Front-end collection plan.

### Mechanical Washers -C1

- Type- Automatic sprinkling washing mechanism
- Maximum Washing width 3.5 Meter
- Operating speed 5 to 10 KM Per Hour
- Contained water tank capacity 1000 to 1500 Gallons
- Total number of machine **Required= 04 Number**



### c) Footpath, Medians, Roundabouts and Open Spaces. (Manual Sweeping)

It is suggested that on footpath Medians, Roundabouts and open spaces, manual sweeping be adopted along wheelbarrow and Suzuki Pickup type of vehicles to transport the sweeping waste from the beat (area) to bucket or containers placed nearby the area. Sweeping be carried out as per schedule of sweeping provided in technical specification. The purpose is that the area must be cleaned and cleared from garbage.

iv) **Proposed Lifting & Disposal of MSW from Collection Points / Dustbin Sites to GTS.**

Under the proposed plan efficient and effective collection & transportation system for MSW is to be adopted using appropriate MSW collection, transportation, machineries and collection system. The suggested numbers of such machines of different MSW contained capacity to handle 1732 Tons Per day MSW generation of DMC Malir and District Council Karachi area satisfactorily is 70 numbers. A system schedule must be developed that helps keeping the area free of garbage. To coop up the target numbers of collection point / dustbin sites are to be significantly reduced that can be done using:

1. Containers, bucket, bins having tipping arrangements is to be provided at appropriate location that can be emptied into a compaction type container mounted on vehicles.

Using compaction type containers mounted vehicles save labour cost and frequent cleaning of bin, buckets and containers help discourage scavengers, reduce insects/rodents problems, prevent windblown trash, control odor, save inside storage space and outside parking spaces, reduce the hazards of open dumping. For various such reasons emphasizes is made to use appropriate machinery for solid waste management and transportation.

The bins, buckets and containers mechanism the vehicle type that is recommended for collection, transportation are mentioned hereunder along with pictorial view of desired vehicles and their tipping mechanism. Operation schedule of machines, number required and proposed plan for operation is given in technical specifications.

## Proposed Machinery for lifting and Transportation including bin Tipping Mechanism under Front-end collection plan

### Bin tipping Mechanism -A1

- Appliance- standard metal or plastic rubbish bin.
- Bin cubage 0.24 to 0.3 cubic meter





**Bin tipping Mechanism A2**  
**Appliances- metal bucket**  
**Bucket cubage= 0.8 meter cube**



**Bucket raising Mechanism A3**

Appliance- big metal rubbish bucket

Bucket cubage =3.35 meter cube



Bucket tipping mechanism-A4  
Appliances- special metal covering  
bucket.  
Bucket cubage =1.4 to 2meter cube



### **Type of Vehicle –Tipping Mechanism –Bin category and type of vehicles**

Vehicle Type - compactor semi-Automatic **or fully** Automatic compaction type. Container in-built vehicle with

- BIN tipping Mechanism –A1
- BIN tipping Mechanism-A2
- Bucket raising Mechanism-A3
- Bucket tipping Mechanism-A4
- Container volume
  - 6.6 M<sup>3</sup>
  - 10 M<sup>3</sup>
  - 12 M<sup>3</sup>
  - 16 M<sup>3</sup>
- Number required
  - A suggested number of machines having different container capacity that are required to handle MSW generation of DMC Central on Daily Basis are mentioned as under:
    - **Vehicle with Container Capacity of 6.6 M<sup>3</sup> = 13 No.**
    - **Vehicle with Container Capacity of 10 M<sup>3</sup> = 09 No.**
    - **Vehicle with Container Capacity of 12 M<sup>3</sup> = 09 No.**
    - **Vehicle with Container Capacity of 16 M<sup>3</sup> = 10 No.**
    - Total = 41 No.**



#### **Small vehicle tipping mechanism**

Appliances- auto tipping bucket  
Small vehicle bucket cubage = 1.4 meter cube  
Capacity of in-built container = 1.5 to 2.5 meter cube

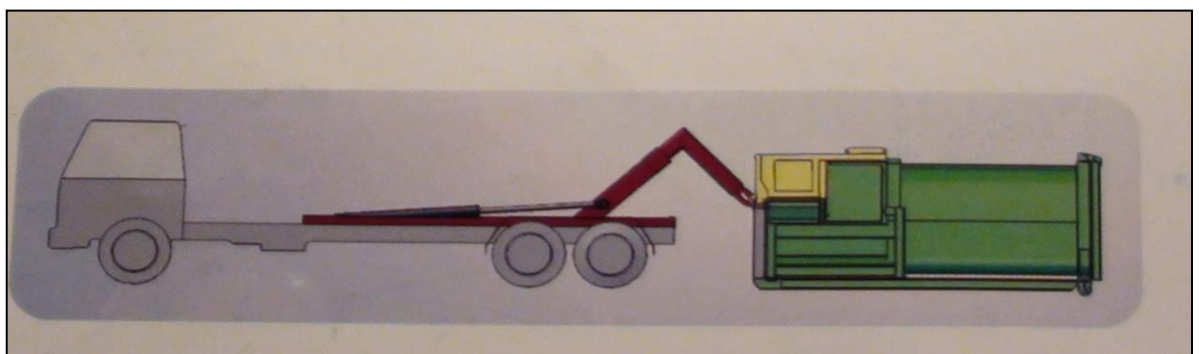


No Required

As many numbers as required in view of the physical conditions.



Container Hook Lifting type Mechanism



Hook Lifting type Mechanism-B

Appliances- metal container

Container Cubage

1. 10 m<sup>3</sup>
2. 07 m<sup>3</sup>

3. 05 m<sup>3</sup>

Number required

- Suggested number of machines required of different container Volume capacity is

<b>05 M<sup>3</sup> Volume=</b>	<b>11 No.</b>
<b>10M<sup>3</sup> Volume=</b>	<b>09 No.</b>
<b>07M<sup>3</sup> Volume=</b>	<b><u>11 No.</u></b>
<b>Total =</b>	<b>31 No.</b>

NOTE: THE CONTRACTOR IS SUPPOSED TO GIVE HIS OWN STRATEGY FOR THE FRONT-END COLLECTION COMPRISING OF DIFFERENT TYPES OF VEHICLES (LARGE, MEDIUM AND SMALL AND EVEN UPTO HAND CARTS & WHEEL BARROWS). INNOVATIVE APPROACH AND OUT OF BOX SOLUTIONS LEADING TO IMPROVED EFFICIENCY AND SAVINGS IN COST WILL BE HIGHLY APPRECIATED.

#### 4.4 Schedule of Works

Proposed schedule of work and services is given at term of reference and technical specification.

#### 4.5 GTS of Zones and Locations.

- a. For Malir Zone GTS location is not permanently specified therefore GTS location will be designated at the time of work on ground, however GTS location will be designated within the Malir Zone.
- b. For Bin Qasim Zone GTS location is not permanently specified therefore GTS location will be designated at the time of work on ground, however GTS location will be designated within the Bin Qasim Zone.
- c. District Council Area Gadap Zone the GTS will be at Jamchakro Landfill site or as designated by procuring agency. However GTS for Gadap Zone will be located within the Zone.

## **Section V**

# **Terms of Reference & Technical Specification**

**Terms of Reference & Technical Specification****5.1 MSW by Definition**

Municipal Solid Waste, commonly known as trash or garbage is a waste type consisting of everyday items that are discarded by public including food waste, market waste, yard waste, landscape waste (tree cutting, garden waste, bushes, grass cuttings etc), domestic waste, slaughter and sacrificial animal waste (like offals, bones, skin etc.) and other miscellaneous solid waste from residential commercial, institutional areas but does not include demolition waste (debris / inert waste) industrial waste, agriculture waste, Medical Waste or sewage sludge.

The total estimate MSW generation in DMC Malir is 619 Ton Per Day whereas MSW Generation for District Council Area Gadap Zone is 264 Ton Per Day. The composition of MSW and its quantum varies depending upon type of dwellings, population density, commercial activity and density of different type of bazaars and markets in the area. The quantum of MSW also reflects its variation on various occasion, like Eid Festival in the month of Ramadan and Eidul Azha. The quantum also exhibits seasonal variation.

Municipal Solid Waste can be classified in several ways, but the following list represents a typical classification:

- Biodegradable Waste i.e.  
Food and kitchen waste, green waste, waste from houses, gardens / parks, papers.
- Recyclable Material i.e.  
Like paper, glass, bottles, cans, metal, plastic, fabrics, clothes, batteries, old types etc.
- Electrical and Electronics Waste  
Like discarded computers, electrical appliances etc.
- Composite Waste.  
Waste clothing, Tetra Pack, Plastic like toys etc.
- Hazardous Household Waste  
Like paints, chemicals in daily residential usage, light bulbs, tubes, spray cans, garden fertilizer, different types of plastic bottles and cans, garden pesticide, herbicides etc.



Municipal Solid Waste as defined herein above includes all type of waste that is collected at dustbins/collection points except demolition waste (debris / inert waste) industrial and medical waste, agriculture waste, sewage sludge but includes sweeping waste with a minor component of dirt.

## 5.2 Transition Period

Transition period for the purpose of implementation of this contract is 03 (three) months starting from date of signing of agreement and issuance of work order. The contractor shall be liable to function / start its activities and the work and services even in the transaction period.

## 5.3 Terms of Reference

### a. Scope of work

1. Door-to-door collection of garbage & revamping of entire bin system.
2. Sweeping of roads, streets, lanes, footpath, medians and open spaces and sweeping waste collection and disposal.
3. Washing of important roads as and when required on special occasions.
4. Lifting and transportation of MSW from dustbins sites & collection points to designated GTS.
5. Establishment of Scientific Monitoring and Tracking of the Entire System i.e. vehicle sanitary staff, assets etc.
6. Establishment of complaint management system.
7. Community awareness programme and its implementation.

### b. Objective of work and services

The objective of this contract i.e. work and services is to provide an efficient, cost effective, environment friendly solid waste collection, transportation and disposal system, and its efficient and effective management and operation for the public to live in waste free and healthy environment. Effective management and monitoring shall help in obtaining desired results in time.

### c. Task to be performed.

1. Door to door collection of MSW.

Door to door collection for Front End Collection Plan / mechanism is categorized as:

(a) Block Collection.

Wherein waste collecting vehicles with one or two waste collecting workers move around the residential blocks on a specified time each day and sound horns or ring bell and wait at intermediate location for residents to bring waste in polythene bags to the collection vehicles or where the workers with the collecting vehicles collect garbage in a basket at the door step of the residents and throw in the collecting vehicles, which is then disposed of to nearest dustbin site.

(b) Door Step Collection.

Wherein waste is left outside the property by the residents in plastic/polythene bags and picked up by waste collecting vehicles moving in and around the residential area at specific time each day or collected at door step by the sweepers every day, equipped with wheel barrow, handcart and disposed of to nearest dustbins sites.

(c) Shared containers type collection.

Wherein a container of suitable capacity is placed at an appropriate place within a residential block, apartment building, market and shopping area. The residents and other generators put their waste stuff inside the container, these containers may be of hook and lifting type or may be bucket type with proper tipping arrangements, which are then emptied at by compaction container type compactor vehicles and then again placed at the location. However this operation is done as many time as required to keep the container free of garbage. The locations where such containers are placed are kept cleaned and spilled out garbage is swept from the surrounding.

Anyone or all defined categories will be adopted under the front end collection plan for door to door collection keeping in view the demographics of the area. However for the purpose of guidance, sweeping methodology in various UCs of the Zones of DMC Malir & District Council Karachi is mentioned hereunder:

Plastic bags will be provided free of cost by contractor/operator to all residential units for the first two weeks of the contract only.

**d. Street Sweeping and sweeping of main roads**

**1. Conventional Type (i.e. manual).**

Sweeping carried out with the help of sweepers using brooms/brushes. The sweeping waste is collected through

wheelbarrows, transported and disposed of to nearby buckets or containers with tipping arrangements.

**2. Mechanical Type (i.e. using machine sweepers).**

Appropriate, vacuum type mechanical sweeping vehicles including built-in sweeping waste container facility shall be used. The sweeping waste shall be disposed of to nearest buckets or containers having tipping arrangements.

**e. Collection and transportation of MSW**

Under the proposed plan efficient and effective collection & transportation system for MSW is to be adopted - a system that helps keeping the area free of garbage. To couple up with the target number of collection points, existing dustbin sites are to be significantly reduced that can be done using:

1. Containers, bucket, bins having tipping arrangements is to be provided at appropriate locations that can be emptied into a compaction type container mounted on vehicles.

Using compaction type container mounted vehicles save labour cost. Frequent cleaning of bins, buckets and containers help discourage scavengers, reduce insects / rodents problem, prevent windblown trash, control odor, save inside storage space and outside parking spaces. It also reduces the hazards of open dumping. For various such reasons emphasis is to use appropriate machinery for solid waste management and transportation.

**f. Responsibilities of procuring agency**

1. In case the procuring agency does not fulfil its obligation regarding signing of agreement, the contractor may relinquish its commitments 45 (forty five) days after receiving the acceptance letter by procuring agency.
2. The procuring agency shall assist and facilitate the contractor in performing the work and services as per the contract in respectful and honorable manner throughout the period of contract.
3. The procuring agency shall make all due payments to the contractor in respect to verified monthly bills timely and will also be careful and justified in imposing penalties.

**g. Responsibilities of contractor**

1. The contractor will perform the work and services under this contract in respectful, honorable manner with desire to serve people of the area.

2. The contractor will submit his monthly performance bill in time and in accordance with the work performed correctly and in justifiable manner.
3. Contractor shall follow the instructions; guidelines issued by the client or by representative of the client and shall comply with all such instructions timely.
4. Contractor is responsible for ensuring good behavior with the public and follow the code of conduct detailed in contract document

## 5.4 Technical specification.

### A. Revamping of Bin System.

The contractor shall provide bins, buckets and containers having tipping mechanism compatible with compactor vehicles in the color scheme noted below:

**Bin Qasim Zone– Dark Blue**  
**Malir Zone – Green**  
**Gadap Zone – Red**

#### Marking of Logo and Letters

Sindh Solid Waste Management Board and the Zone Name shall be written in Capital Bold Letter and its logo shall be placed on bins, buckets and containers with the approval of the Procuring Agency.

#### Bin Type and Sizes

1. Plastic Litterbins of bin cubage 0.24 to 0.3 Meter cube.
2. Standard metals bucket with the following cubage:
  - a. Bucket cubage of 0.8 to 1.4 m<sup>3</sup>.
  - b. Bucket cubage of 1.4 to 2 m<sup>3</sup>.
  - c. Big bucket cubage 3.35 to 4 m<sup>3</sup>.
3. Standard Metal Container of container cubage 5 to 10 m<sup>3</sup>.  
 All the bins, buckets and containers shall be of tipping type.

#### Bin Requirements

	Zones	Plastic Litterbins of different sizes and colors	Standard metal bucket of different sizes and colors	Standard Metal container of different sizes and colors
DMC Malir	Bin Qasim	800 Nos.	600 Nos.	200 Nos.
	Malir	1500 Nos.	800 Nos.	150 Nos.
District Council	Gadap	500 Nos.	500 Nos.	200 Nos.

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Karachi				
	<b>Total</b>	<b>2800 Nos.</b>	<b>1900 Nos.</b>	<b>550 Nos.</b>
	Area of placement	in market & shops	in market shopping malls & commercial centre & residential Unit	At appropriate places in residential areas, apartment blocks, residential blocks and public places

**REMARKS:**

Contractor shall provide bins, buckets, and containers with prior approval for the quality and numbers to be provided at first stage, second stage and third stage as desired by procuring agency.

**B. Plan for Placement of bins, buckets and containers**

The contractor will prepare a comprehensive plan for placement of bins, buckets and containers in various union councils / union committees of each zone as per guideline for revamping of bin system.

The plan submitted by the successful bidder shall be reviewed by the client after award of the contract and if required, a revised plan shall be prepared with mutual consent of client and contractor and with the approval of client, the approved plan shall be implemented for provision work and services under this contract.

**C. Polythene bag**

Polythene bags of size 0.5X1 meter in black color of +30 micron thickness with letter and logo of SSWMB printed on it shall be provided by the contractor for door to door collection in the areas where door step collection strategy is adopted. Contractor will provide such bags free of cost for the first two weeks of the contract and thereafter bags will be provided to residents on payment. Prior approval of the client shall be required for the cost of the bags provided to residents. Samples of polythene bags shall be sent for approval of client with required printing. Only approved bags shall be supplied to the residents. Polythene bags shall be provided for everyday collection solid waste to the residents.

**D. Cost of Polythene bags provided free of cost**

All cost towards providing/supplying of polythene bags free of cost (for the first two weeks of the contract) shall be included in unit cost of work and services mentioned in price list.

**E. Door to door collection plan**

Domestic waste shall be collected under the strategy for door-to-door collection defined under front-end collection plan. The contractor shall submit plans for implementation of this system for door-to-door

collection along with the tender / bid. Such plan shall be reviewed and reworked with the consent of client and successful bidder and shall be subject to approval of competent authority. The approved plan shall be implemented. The strategy for door-to-door collection defined herein in the documents using UC wise parameter are basic once and the bidder is supposed to give his own appropriate plan and strategy. Innovation and out of box ideas shall encouraged.

## **F. Handcarts and other tools for door-to-door collection**

1. Contractor will collect waste from narrow streets, which cannot be accessed by garbage vehicles, through workers using wheeled handcarts and empty them to nearby containers or to the compactor vehicles standing nearby in the locality.  
Wheeled handcart bin cubage = 120 Litters
2. Contractor may also collect waste from congested residential colonies through workers using wheel barrows and baskets.

## **G. Manual sweeping**

Manual sweeping of roads shall be carried out by men / weman sweepers using brooms/brushes and sweeping waste is collected through wheelbarrows and sweeping waste disposed of at nearby containers or buckets or compactor vehicles standing nearby in the locality.

Tools for manual sweeping

1. Brooms and brushes
2. Shovels and spades
3. Racks
4. Basket
5. Hoe.

## **H. Length and area for manual sweeping**

DMC Malir	Bin Qasim Zone	453.12 KM
	Malir Zone	306.90 KM
Total		760.02 KM
District Council Area	Gadap Zone	475.00 KM
	Total	475.00 KM

Near approximate length and area for manual sweeping under following sub-head is noted below for DMC Malir Area.

a)	Medians	14390 Sq Meter
b)	Footpath	18820 Sq Meter

c)	Roundabout	3750 Sq Meter
d)	Open spaces	8500 Sq Meter
Total		45460 Sq Meter

Near approximate length and area for manual sweeping under following sub-head is noted below for District Council Karachi Gadap Zone.

a)	Medians	9890 Sq Meter
b)	Footpath	14670 Sq Meter
c)	Roundabout	800 Sq Meter
d)	Open spaces	1000 Sq Meter
Total		26360 Sq Meter

### I. Workforce required for manual sweeping

Minimum suggested workforce required for sweeping of roads, medians, footpaths, roundabouts and open spaces under manual sweeping for Malir Zone is 1200 persons and for District Council area Gadap Zone is 800 Persons.

### J. Schedule for manual sweeping

#### For DMC Malir

Type of roads	Manual sweeping length meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Secondary Main Road	153550	Yes	No	Yes	No	Yes	No	No
Streets	315600	No	Yes	No	Yes	No	Yes	No
Narrow lanes	290870	Yes	No	Yes	No	Yes	No	No
Type of Area	Manual sweeping Square meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Medians	14390	Yes	No	No	Yes	No	No	No
Footpath	18820	No	No	Yes	No	No	Yes	No
Open spaces	3750	No	No	No	No	No	Yes	No
Roundabouts	8500	Yes	No	No	No	No	No	No

#### For District Council Area Gadap Zone

Type of roads	Manual sweeping length meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Secondary Main Road	91050	Yes	No	No	No	Yes	No	No
Streets	235650	No	Yes	No	No	No	Yes	No
Narrow lanes	112450	Yes	No	Yes	No	Yes	No	No
Type of Area	Manual sweeping Square meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Medians	9890	Yes	No	No	No	No	No	No
Footpath	14670	No	No	Yes	No	No	Yes	No
Open spaces	800	No	No	No	No	No	Yes	No
Roundabouts	1000	Yes	No	No	No	No	No	No

Manual sweeping shall be done in 02 (two) shifts according to the schedule of sweeping.

06:00AM –to- 10:00 AM Shift-1

02:00PM –to- 06:00 PM Shift-2

All cost towards workers, bins, bucket, container, tools must be included in the unit cast of works and services items mentioned in the price list.

#### K. Schedule for mechanical sweeping on primary and secondary main roads

DMC	Mechanical sweeping length meter	Number of Sweeping Machine	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Malir	115000	3	Yes	No	Yes	No	Yes	No	No
District Council Karachi Gadap Zone	35250	2	Yes	No	No	No	Yes	No	No

Standard mechanical sweeping machines of vacuum type with self-contained in-built waste collection container shall be applied at the work.

#### L. Plan for mechanical sweeping.

Contractor will prepare a comprehensive plan for mechanical sweeping work of each zone as per guidelines given herein above and will attach the same with the contract document. The client shall review the plan submitted by the successful bidder after award of the contract. The approved plan shall be implemented for operation of work and services under this contract.

#### M. Plan for collection and transportation of MSW and schedule of operation for DMC Malir and District Council Area Gadap Zone.

Name of DMC	MSW Generation Ton Per day	Number of collection and transportation vehicles of different Capacity	Mon	Tue	Wed	Thu	Fri	Sat	Sun
DMC Malir	619	26	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door to door collection	Inclusive as above	Tool as per requirement	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District Council Karachi Gadap Zone	264	15	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door to door collection	Inclusive as above	Tool as per requirement	Yes	Yes	Yes	Yes	Yes	Yes	Yes



**N. Plan for mechanical washing of the road**

Name of DMC	Length of washing of main roads Per Year	Number of Washing vehicle	Mon	Tue	Wed	Thu	Fri	Sat	Sun
DMC Malir	350	02	Occasionally when asked for. On written orders						
District Council Karachi Gadap Zone	250	01	Occasionally when asked for. On written orders						

**Note:-**

The schedule and work plan given herein above are based on basic parameters and of tentative basis. The bidders are supposed to give their own appropriate plan, strategies and schedules. Innovation and out of box ideas shall be encouraged.

**O. Proposed Managerial and operational staff requirement**

Srl No.	Designation	Area	Numbers	Qualification	Remarks
01.	Manager Operation	Malir Zone	01	Well experienced high qualified professional engineer	Please attached the C.V. of the personal
		District Council Area Gadap Zone			
02	Manager Monitoring & Tracking System	Malir Zone	01	Personal may be an I.T. Specialist at least B.S in computer science with specialization in networking and system management sciences	Please attached the C.V. of the personal
		District Council Area Gadap Zone	01		
03	Zone Field Incharge	Malir Zone	02	Graduate having sufficient experience in SWM.	Please attached the C.V. of the personal
		District Council Area Gadap Zone	01		
04	Supervisor	Malir Zone	28	Graduate having sufficient experience in SWM.	Please attached the C.V. of the personal
		District Council Area Gadap Zone	16		
05	Asst. Supervisor	Malir Zone	42	Intermediate sufficient experience in SWM.	Please attached the C.V. of the personal
		District Council Area Gadap Zone	24		
06	Muquddam	Malir Zone	56	Metric having sufficient experience in SWM.	Please attached the C.V. of the personal
		District Council Area Gadap Zone	32		

## 5.5 Basis of current date prices

### i. Source of price (Diesel)

The source of prices of diesel shall be either obtained from Government of Pakistan (GOP) Federal Bureau of Statistic (FBS) monthly statistical bulletin or Pakistan State Oil (PSO). However for a particular adjustable element the same source shall be used throughout the currency of the contract.

### ii. Source price – Labour (Unskilled)

The source price for labour shall be either Govt. of Pakistan (GOP) Federal Bureau of Statistic (FBS) statistical bulletin and statutory notifications. However for a particular adjustable element the same source shall be used throughout the currency of the contract.

### iii. Element for price adjustment

Following specified elements is subjected to price adjustment

- a) Fuel (Diesel) for vehicles collecting/Transporting MSW only
- b) Labour (unskilled)

### iv. Standard Procedure and Formula for Price Adjustment Calculations.

#### A) Applicability.

- a. The provision for price adjustment shall be applicable to this contract and price adjustment shall be applicable as payable in full for original scheduled completion period.
- b. In the event the completion of contract exceeds the original scheduled period then:
  - i. In case of default on the part of contractor causing delay in original schedule completion, the rate of price adjustment will be frozen at the original scheduled date of completion, however price adjustment will be applicable till actual completion. While computing price adjustment beyond the scheduled completion period, in the event the rate is reduced then that reduced rate will be applicable.
  - ii. The price adjustment will be payable in full for the extended period, if the contractor has been granted an extension of time for no fault on the part of contractor duly approved by Sindh Solid Waste Management Board (the procuring agency).

- c. The Basis for compensation (Price Adjustment) will be only those element as specifically listed in clause No.5.5(iii) of this document.
- d. There shall be no price adjustment for the elements, which the procuring agency has either supplied free of cost or at fixed prices as well as for those elements for which an umbrella exgratia or escalation cover is provided by the Government through an executive order or Statutory Regulatory Order (SRO).
- e. The price adjustment provided herein is only for price adjustment in Local Currency (Pak Rupees).
- f. No method other than given in this document is applicable to compute the price adjustment.

B) Base Date Price and Current Date Price

a. **Base Date Price.**

The base date price (or Base date index) of the element specified in clause 5.5 (iii) shall be the price of the element, which was prevalent twenty eight (28) days prior to the date of submission of tender and such price is to be indicated in writing in the document, as required to be provided by the bidder under appendix-A along with the documentary evidence of specified source. The base date price of the specified element shall be obtained from the sources specified under clause No.5.5

b. **Current Date Price.**

The current date price (or current date index) of the element specified under clause 5.5(iii) shall be price of the element, which was prevalent twenty-eight (28) days prior to the start of the execution month (calendar month) to which a particular monthly statement (monthly running bill) is related. The current date price of the specified element shall be obtained from the source specified in the contract and its documentary evidence is to be provided by the contractor along with monthly bill statement.

c. **Procedure.**

The monthly bill statement (monthly running bill) as submitted by the contractor, will be

- i. Subjected to verification by procuring agency or its authorized representatives. In case the billed amount is for more than one month, the amount of bill shall be segregated for actual work done for each month.

- ii. Considering the base date price and current date price, the price adjustment in the billed amount then be calculated for the month under consideration in accordance with the formula for price adjustment

C) Formula for Price Adjustment (generalized form)

$$P_n = A + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \dots$$

$P_n$  = is Price Adjustment factor for the work carried out in the period n.

A = is a constant or non-adjustable portion of the price adjustment factor as specified here under representing the non-adjustable portion of contract price.

b, c, d ....=are the coefficient or weightage order 0.xx (i.e. fraction having two significant digits) for each specified element of adjustment in the contract. The sum of A, b, c, d, etc shall be one.

$L_o, M_o, E_o, \dots$  = are the base date indices for the specified (adjustable) element.

$L_n, M_n, E_n, \dots$  = are the current date indices of the specified (adjustable) element.

If P is the amount payable (prior to adjustment) at the rate entered in the price schedule of work carried out in period n then adjusted payable bill amount to the contractor for the work carried out in period n shall be equal to  $P_n \times P$ .

## 5.6 Rate analysis

The contractor shall provide rate analysis for each item of BOQ mentioned in the price sheet. The rate analysis should indicate breakup of Unit Cost by activities involved in an item. The consumption of fuel at current rates, factored cost of machines, cost of litterbins, buckets, containers, polythene bags (that are provided free of cost for two weeks only), tools, labour cost, managing and monitoring and other cost breakup while evaluating unit price for the items of works and services and shall also provide breakup of cost of other items that are inbuilt in items of works, and the way of evaluation the unit prices. The details are required to assist the reasonability of rates quoted by the contractor.

## **5.7 Chargeable works**

The contractor shall provide polythene bags to the resident free of cost for the first two weeks of the contract period, after words contractor shall charge the cost of polythene bag from the area residents to whom the bags are provided. However the cost of bags shall be approved by the client. In any case no cost towards supplying polythene bags to the residents shall be included or inbuilt in the unit price of the item mentioned in the price list except that provided free of cost for first two weeks of the contract. After two weeks the residents shall be at liberty to buy these polythene bags either from the contractor or open market (as per approved specification).

## **5.8 Procuring agency representative, duties and authorities**

The procuring agency will appoint a supervising consulting firm or supervising personnel to examine whether work is being performed in accordance with the standards, quality and specification. The supervising consulting firm shall verify the monthly performance bill, check monthly performance and shall report to the client. The contractor shall comply with the instructions of the supervising authority.

## **5.9 Uniform**

All field staff of the contractor shall wear a proper uniform as approved by the client. A logo of SSWMB shall be placed on the front pocket and on the back of the uniform, the cost of uniform shall be included in the unit price of work items mentioned in the price list.

## **5.10 Weightment of MSW.**

Payment of MSW collection and Transportation shall be based on weight (Metric Ton=1000Kg), subjected to weight quantified/measured through a designated weighbridge (weighbridge designated and approved by SSWMB). The weighing charges shall be borne by the contractor and deemed to be included in the Unit Cost of the item.

## 5.11 Tentative Weight Assessment.

The weight of Municipal Solid Waste shall be assessed on the basis of its density as (Weight / Volume) Tons Per Cft. (This density shall be subjected to verification by SSWMB and the contractor prior to execution of work. The jointly verified density shall be used for assessment of weight of MSW throughout the contract). The Assessment of weight by density shall be the basis of Payment. This tentative assessment of weight is a check to ensure that any construction debris or inert waste is not mixed with MSW. Contractor for the purpose of assessment shall provide cubage of each and every vehicle container transporting MSW to GTS or Landfill.

Debris and inert waste shall not be mixed with MSW. Any weight of debris or inert waste shall not be subject to payments. If mixed with MSW strict action shall be taken including imposition of penalties and actions that such weight shall not be allowed for payment.

## 5.12 Rating System and Payment Criteria for sweeping work (Manual and Mechanical).

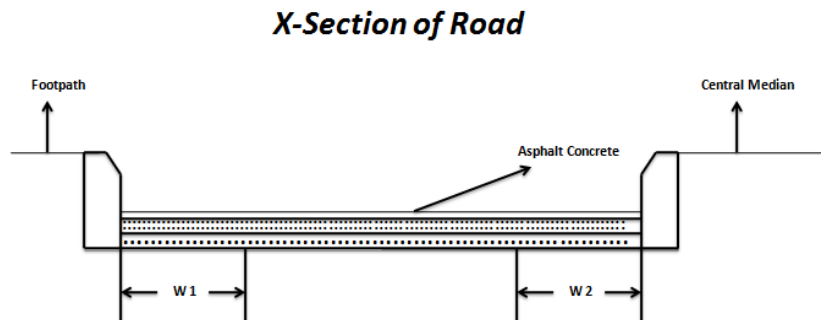
### A) Street Cleaning Rating System in Term of Litter and Dust.

<b>Numeric Value</b>	<b>Service Standard sweeping works</b>	<b>Payment in terms of percentage of cost of work done</b>
1	a) A clean street no litter b) A clean street no dust and particles	100%
2	a) A clean street, except for a few one piece of litter b) A clean street, except for a few dust particles micron>40	90%
3	a) No concentration of litter. There are no piles of litter, and there are large gaps between pieces of litter. b) No concentration of dust. There are no piles of dust, and there are large gaps between minor heap of dust particle or small gaps between dust particles.	80%
4	a) Litter is concentrated in spots. There may either be large gaps between pile of litter, or small gaps between pieces of litter. b) Dust and particle micron <600 is concentrated in spots, there may either gaps between minor heap of dust particle or small gaps between dust particle	70%
5	a) Litter is concentrated and there are only small gaps between pieces of litter.	50%

	b) Dust and particle micron <1000 is concentrated in spots, there may be either gaps between minor heaps of dust particle or small gaps between dust particle	
6	a) Litter is highly concentrated with no gaps in the pile of litter and the litter is straight line along the curb. b) Dust is highly concentrated with no gaps in the heaps of dust and particle. The dust is straight line along the curb.	30%
7	a) Litter is very highly concentrated and there are no gaps between the piles of litter. The litter is a straight line along and over the curb. b) Dust is very highly concentrated and there are no gaps between the dusts. The dust is a straight line along and over the curb.	0%

B) Bases for Payment for Sweeping Work.

- i. Manual sweeping of Road/Streets with Kerb at both edge with or without footpath but not including sweeping of footpath.



W1= 2 Meters Minimum from the edge stone of road

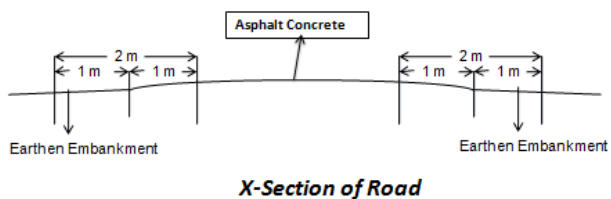
W2= 2 Meters Minimum from the edge stone of road

L = Length of sweeping

Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

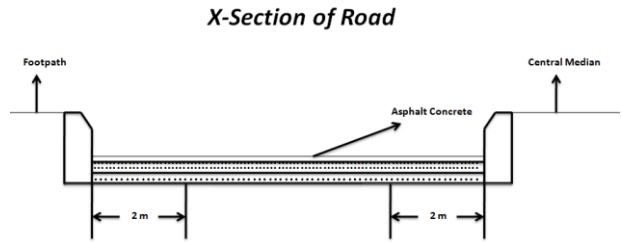
- ii. Manual sweeping of Road/Streets with earthen embankments or sides without kerbs.



Note: Single length L of sweeping in one direction inclusive of both W1 and W2 shall be considered for payment.

iii. Mechanical sweeping of roads single or double carriageways.

- a) Mechanical sweeping of roads (single or double carriageways) with kerb at both edge with or without footpath, but not including sweeping of footpath



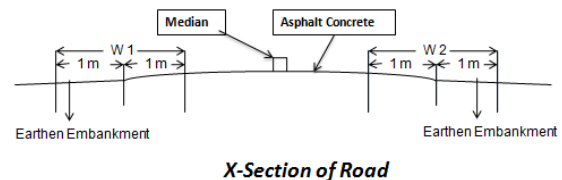
W1= 2 Meters Minimum from the edge stone of road

W2= 2 Meters Minimum from the edge stone of road

Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

- b) Mechanical sweeping of roads single or double carriageways with earthen embankment sides without kerbs having central median or without central median.



Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

### 5.13 Submission of Monthly Bill

- A. The contractor shall submit the bill for the work and service performed by 7<sup>th</sup> day of every month. Monthly bill shall be supported by zone wise MSW weight slips along with detail of lifting of MSW along with date, time and location. An inventory of roads on which sweeping work is done with length and reference date, time and location shall be provided by the contractor in support of his bill. Contractor may use GIS System and other latest technology to provide information in support of his monthly bill submission.
- B. Minimum amount of monthly bill (interim / running payment certificate):  
The amount of interim running payment shall be equal to the amount of certified monthly works executed. The monthly bill shall be paid within 15 days of its submission.



#### **5.14 Demolition, Construction/Building Material and Debris Management Service.**

The contractor shall be required to provide demolition construction/building material and debris management service on phone call or on complaint for removal/lifting and disposal of debris of demolition, construction/ building material from the area of service (the area of service of DMC Malir & District Council) at his own risk and cost. For the purpose of this management the contractor shall be required to:

- a) Provide as number of vehicles as required to lift and transport of demolition material and debris.
- b) Provide as much staff as required to manage this service.
- c) Construct, manage and operate a construction demolition/building material and debris yard at appropriate place within the same area where demolition material and debris shall be dumped.

The contractor will however be allowed to charge fee from the public requesting for lifting/removal of such demolition material and debris. The fee/charges for this service shall be fixed at the rates approved by the SSWMB.

The contractor will also be allowed to sell out demolition construction/building material dumped at the yard at the rates approved by the SSWMB.

The contractor is hereby warned that:

- Dumping of demolition, construction/building material in the community dustbins, on roads, streets, lanes, footpaths, central medians, roundabouts & open places is strictly prohibited. Any violation in this regard will be dealt strictly and penalized as per law / rules.

#### **5.15 Notices.**

Prior to impose penalty, the contractor shall be informed by procuring agency officials of his deficiencies through two consecutive notices at a week interval after that penalty will be imposed.

**Appendix-A****Price Adjustment Under Clause 5.5 of Section-V of Contract Document**

The source of indices and the weightages or coefficient for use in the price adjustment formula under Clause 5.5 shall be as follows:

Cost Element	Description	Weightages	Applicable index
1	2	3	4
Non Adjustable Portion			
(i)	Fixed Portion	0.49	Official price from public sector organization or statistical bulletin published by Federal Bureau of Statistic (FBS), Statistical Division Govt. of Pakistan Statutory Notification.
Adjustable portion			
(i)	Fuel Diesel	0.08	Govt. of Pakistan by Federal Bureau of Statistic (FBS), Monthly statistical bulletin or Pakistan State Oil
(ii)	Labour (unskilled)	0.43	Govt. of Pakistan (GoP) Federal Bureau of Statistic (FBS), Statistical Bulletin and Statutory Notification.
	Total	1.00	

1. For Base Date and Current date indices refer clause no.5.5. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
2. Any fluctuation in the indices or prices of elements other than those given above shall not be subject to adjustment of the Contract Price.

**Price Adjustment Under Clause 5.5 of Section-V of Contract Document***(To be filled in by bidder/contractor)*

Srl No.	Description	Base Date Price	Source
1	2	3	4
(i)	Fuel (Diesel)		As given under Clause No.5.5-i
(ii)	Labour (unskilled)		As given under Clause No.5.5-ii

Srl No.	Description	Current Date Price	Source
1	2	3	4
(i)	Fuel (Diesel)		As given under Clause No.5.5-i
(ii)	Labour (unskilled)		As given under Clause No.5.5-ii

**Note:** *The bidder/contractor is hereby cautioned to read clause 5.5 and price adjustment procedure given therein carefully while filling the above appendix.*

**List of Subcontractors**

I/we intend to subcontract the following parts of the work to subcontractors. In my/our opinion, the subcontractors named hereunder are reliable and competent to perform that part of the work for which each is listed.

Enclosed is documentation outlining experience of sub contractors, the curriculum vitae and experience of their key personnel and type of contracts carried out in the past.

<b>Part of Works (Give Details)</b>	<b>Subcontractor (With Complete Address)</b>
<b>1</b>	<b>2</b>

**Note:** *While filling the above reference may kindly be drawn to Clause No.2.22 of this document.*

**List of Solid Waste Machinery / Vehicles & Equipments**

Owned Purchased or Leased	Description of Unit (Make, Model, Year	Capacity HP Rating	Condition	Present Location or Source	Dated of Delivery at Site	Fuel consumption Per Kilometer
1	2	3	4	5	6	7
a. Compactor along with tipping arrangements						
b. Suzuki / Pickup Type Vehicles with tipping arrangements						
c. Arm Rolls Type Vehicles with tipping arrangements						
d. Mechanical Sweepers vacuum type with wet sweeping mechanism and contained dirt provisions						
e. Mechanical Sweepers vacuum type with dry sweeping mechanism and contained dirt provisions						
f. Mechanical Washer						

**Note:** *While filling the above reference may kindly be drawn to Clause No.4.3 carefully of this document.*

**Appendix-E****List of Solid Waste Machinery / Vehicles that the contractor intend to purchase from the DMC (Malir) & District Council Karachi**

<b>Make Model of the Machinery</b>	<b>Type of Machinery</b>	<b>Registration No.</b>
1	2	3

**Note:** *While filling the above contractor /bidder is requested to survey the existing machinery of the DMC Malir & District Council Karachi with due care and diligence*

**Breakdown of Unit Cost of the item in BOQ by the Activities and Works in that item.**

Group of Activities in an item of BOQ: _____						
No.	Description of the Activities in the Item	Unit	Unit Cost	Quantity	Cost in Pak Rupees	Cost in US\$
1						
2						
3						
4						
5						

Cost = Unit Cost x Quantity

**Note:** *While filling the above contractor /bidder is requested to study the document and description of Items in BOQ carefully*

**Estimated Progress Payments .**

Bidder's estimate of the value of work, which would be executed by him during each of the periods stated below, based on his Programme of the Works and the Rates in the Bill of Quantities, expressed in thousands of Pakistani Rupees.

<b>Quarter/Year/Period</b>	<b>Amounts (Million of Rupees.)</b>
<b>1</b>	<b>2</b>
1 <sup>st</sup> Quarter	
2 <sup>nd</sup> Quarter	
3 <sup>rd</sup> Quarter	
4 <sup>th</sup> Quarter	
5 <sup>th</sup> Quarter	
6 <sup>th</sup> Quarter	
7 <sup>th</sup> Quarter	
8 <sup>th</sup> Quarter	
9 <sup>th</sup> Quarter	
Bid Price	



## **Section VI**

# **Performance Evaluation & Monitoring System**

**Section VI**

**Performance Evaluation & Monitoring System**

**6.1 Scientific Monitoring and tracking system for entire management and operation Plan**

The monitoring of processes included in front-end services should be aimed to ensure that the objectives of solid waste management plan are realized and achieved. The proposed mechanism for different processes include:

**COMMAND AND CONTROL CENTRE**

- Central as well as District Command and Control Centre is planned to be established by SSWMB.
- However the Contractor shall have to setup his own Control Room for effective monitoring and execution of the scheme.
- Members from District Municipal Corporation/District Council Karachi and Sindh Solid Waste Management Board shall be given access to the control room.
- Radio monitoring system to be established at control room.
- Android-based monitoring system shall be established at control room.
- GPS tracking system for garbage transportation vehicles.

## **Section VII**

### **Conditions of Contract and Price Sheet**

**Section VII****Conditions of Contract and Price Sheet****7.1 Compliance of Laws & Rules Regulation**

The contractor shall be bound under this contract to comply with all substantive and procedure laws of Islamic Republic of Pakistan, which may include but are not limited to the followings:

- i) Labour Laws
- ii) Land Laws
- iii) Environmental Laws
- iv) Local Govt. Act./Laws
- v) All National and Provincial Rules and Regulation applicable to the nature of services and works under this contract.

Inability of successful bidder to comply with all laws, rules, regulation and procedures will result in penalization, as per penalty clauses provided in this contract.

All substantive and procedural laws of Islamic Republic of Pakistan including Sindh Public Procurement Rules 2010 amended 2013 shall govern this document.

**7.2 RFP Document**

All section of RFP documents i.e.

- i) Section-I Preamble
- ii) Section-II Instruction to Contractor
- iii) Section-III Description of the Zones of DMC Malir & District council Karachi
- iv) Section IV Proposed plan for DMC Malir & District Council Karachi
- v) Section-V Terms and reference and Technical Specifications.
- vi) Section-VI Performance Evaluation and Monitoring System
- vii) Section-VII Conditions of Contract & Price Sheet
- viii) Section-VIII Annexures

All Sections noted above and the clauses contain therein are part and parcel of RFP Document and are integral parts of the agreement and shall be binding upon client and contractor.

### **7.3 Correspondences-Communications-Notices**

All correspondence, communication and notices required or permitted under this contract shall be in writing and in English language and shall be given (to and from contractors & client) at official address provided in this contract document. The relevant parties shall duly notify change of address.

### **7.4 Language of Agreement**

Agreement will be prepared in English language.

### **7.5 Type of Agreement and Contract Price**

The agreement is a unit price contract, the sum of amounts is calculated by multiplying quantity of each work item as indicated in the price list and unit price quoted by the contractor for that work / services items. The payments of each work/services performed by the contractor shall be based on the unit price quoted by the contractor.

### **7.6 Duties and Taxes**

All of the taxes, duties, fees, and other contractual costs regarding the signing of the contract shall be borne by the contractor.

### **7.7 Expenses included in the Contract Price**

All costs associated with the operational management, monitoring and performance of works and services according to the contract, expanses related with fuel, spare parts, maintenance and repair, depreciation of vehicles (solid waste collection and transportation vehicles) etc. and cost of other incidental items, cost of transportation, cost of trollies, polythene bags, containers, dustbins, litterbins and others mentioned in various sections of the contract. Cost of any or all insurances related to and for the purpose of works and cost of all taxes, required to be paid by the contractor pursuant to laws of Pakistan. All the above-mentioned costs and those mentioned in the sections of the contract document must be taken into account and included in bid price.

## **7.8 Intermediate payment / Running Bill**

The contractor shall submit running bill in the first week of every month for the work and services performed by him. The monthly performance shall be checked and determined by the client subject to verification through client representatives and on the basis of such verified determinations by the client payment shall be made within 15 days after submission of monthly performance bill/running bill by the contractor.

## **7.9 Insurance of work & work places**

The contractor shall be responsible for safeguarding of work and work places. The contractor shall take all insurances required by pertinent legislations and submit the policies thereof to the client. The contractor shall be responsible for any damages caused by him or his Subcontractor's personnel in respect of work performed under this contract.

## **7.10 Indemnification by Bidder/Contractor**

Contractor shall indemnify, defend and hold harmless the client (SSWMB), its members, officers, directors, employees and representatives from and against any and all claims arising out of or in anyway connected with gross negligence, fraud, or willful misconduct of the contractor or any one acting on contractor's behalf or under its instructions in connection with this contract and contractor's obligations there under. Any cost or expenses incurred by the contractor pursuant to its indemnity obligation under this clause shall be the sole responsibility of the contractor.

AND

The contractor/bidder shall indemnify the SSWMB, its employees against all losses and claims in respect of:

- a) Death or injury to any person, due to accident.
- b) Loss or damage to any vehicle, plant, property which may be arrived out of accident or public riot or in consequences of execution of work and against all claims, proceedings, damages, cost, charges and expenses, whatsoever in respect of or in relation thereto. The contractor shall also indemnify the client, its officers, employees for any loss, claims, demands or lawsuits resulting from defects in contractor's performance during execution of work and services.

## 7.11 Contractor's Liability for Indemnification

The contractor shall be directly responsible for the choice or use of defective or non-compliant tools or machineries, deficiencies of performance in works and services, mistakes in sufficient supervision or any failure to fulfil his obligation in accordance with the provisions of this contract and specification and any other losses and damages that may occur due to similar reasons. The contractor shall indemnify such losses and damages in accordance with pertinent legislation.

## 7.12 Penalties & Cancellation of Contract.

Penalties as noted below shall be imposed if negligence, discrepancies and deficiencies on the part of the contractor to fulfil their obligations on the performance of works and services and the requirements to perform such works and services are found during the period of this contract.

If the procuring agency finds any non-conformity / activity contrary to the job description defined in this document, the contractor shall be bound, given a chance to bring his work standards to the satisfaction level of the procuring agency and if the non-conformity is not corrected within the time limit granted by the procuring agency, the penalties will be imposed on the contractor.

If non-conformity continues despite penalties, the procuring agency may terminate the agreement and damages to the procuring agency due to these non-conformities of the contractor shall be recovered from his performance securities.

a.	If door to door services is not rendered up to the mark or door to door services is rendered partially and non compliance of the requirement for door to door services mentioned in the technical specifications	Rs.15000/- Per Day Per Zone
b.	If number of manpower provided is found insufficient to perform works and services satisfactorily and not in accordance with the minimum requirement of manpower mentioned in the contract	Rs.400/- Per Day Per Person
c.	If the vehicle used for collection, transportation of solid waste is found inappropriate to the standards of solid waste management system. (Except where SWM vehicles of the procuring agency is utilized.)	Rs.50000/- Per Day Per Vehicle
d.	If numbers of Solid Waste collection and transportation vehicle is deficient to the minimum requirement for successful collection and disposal of MSW as proposed by the bidder in their proposal.	Rs.100000 /- Per Day
e.	If the SWM vehicles are not cleaned and washed and found on road in dirty, out of order and unsafe conditions.	Rs.2000/- Per Vehicle Per Day

f.	If leachate is dropped from the vehicle on roads and working routs.	Rs.5000/- Per Vehicle Per Day
g.	Failure to operate machinery and manpower and vehicles during emergency conditions	Rs.500000 /- Per Day
h.	Improper collection of Solid Waste from dustbins and collection point including road side collection.	Rs.1000/- Per Day Per collection point
i.	If debries are found mixed with MSW while taking weights of MSW at designated weighbridge.	Rs.5000 Per Trip
j.	Number of Garbage Containers, litterbins, tipper bins are found less than the requirement as proposed by bidder in their proposal.	Rs.50000/- Per Day
k.	Failure to clean public areas and removal of waste there from.	Rs.10000/- Per Day
l.	Sweepers personals not wearing uniform (Identifiable to procuring agency)	Rs.500/- Per Person Per Day
m.	Failure to collect domestic waste on road sides, footpaths and streets in 24hours.	Rs.1000/- Per Day
n.	If garbage containers are not cleared properly and timely as required under the contract	Rs.10000/- Per Day
o.	Repeat violation of cleaning and street sweeping services	Rs.20000/- Per Day
p.	On open transportation of garbage	Rs.5000/- Per Vehicle Per Day
q.	If polythene bags for door-to-door collection to the residents of the area are not provided as mentioned in the contract.	Rs.5000/- Per Day Per Zone
r.	If the works and services to be delivered are not started within the stipulate time i.e. 15 days after signing of agreement.	Rs.50000/- Per Day
s.	If dumping of garbage and other solid waste to any other place other than the approved disposal site.	Rs.10000/- Per Day
t.	Segregation of MSW is prohibited under front-end collection plan. If segregation takes place by scavenger or other persons at collection point, dustbins sites, at containers and stage of door-to-door collection.	Rs.25000/- Per Dustbin Per Month

If the procuring agency finds any non-conformity / contrary to the job description defined in this document. The contractor shall be bound giving a chance to bring his work standards to the satisfaction level of the procuring agency and if the non-conformity is not corrected within the time limit granted by the procuring agency, the penalties will be imposed on the contractor.



If non-conformity continues despite the penalties, the procuring agency may terminate the agreement and damages to the procuring agency due to these non-conformities of the contractor shall be recovered from his performance securities.

### 7.13 Resolution of Dispute

- a) **Amicable Settlement:** If any dispute and differences arises between procuring agency and contractor in connection or arises out of this contract, the procuring agency and contractor shall attempt to settle such disputes (within the provisions of the contract) through discussion in the first instance. The designated representatives of procuring agency and contractor shall promptly use their best efforts in good faith to reach a reasonable and equitable resolution of such dispute.
- b) **Settlement through Arbitration:** After coming into force of the procurement contract dispute between the parties to the contract shall be settled by complaint redressal committee defined in SPPR 2010 amended 2013 or through arbitration in accordance with arbitration Act. 1940 and Laws for the time being in force in Islamic Republic of Pakistan.

### 7.14 Code of Conduct

The contractor that attempts to get secret information to conclude illegal agreements with the competitors or to influence the procuring agency during the phase of tender inspection, evaluation and comparison shall result in their offers cancellation and this situation shall be penalized administratively.

The contractor shall act objectively and trust worthy in accordance with rules of business / ethics. It should avoid making public announcement regarding the works and services without prior permission and authorization of the procuring agency.

The contractor and its staff shall not act inconsistent way towards his obligation against the procuring agency and they shall not accept any type of the contributions that may effect their decisions at execution, performance, reporting at the works and services.

Assets of the procuring agency shall not be utilized without appropriate documentations and valid permissions in accordance with the contract. Procuring agency assets shall not be used for personal interest.

Contractor is responsible to ensure that its employees keep good behavior with the public during execution of services in the area. Contractor shall be constructive with the public and shall not behave in a disgusting manner to the public. The services that are to be performed are to serve the public. Briberies, tips or commission offered as incentive or reward to any person shall be considered as fraud, which is strictly forbidden under this contract. If the contractor **is** found guilty under forbidden clauses of the contract, action shall be taken accordingly.

#### **7.15 Time extension in conditions, situations of force majeure**

Time extension shall be granted to the contractor in conditions and situation of force majeure, but procuring agency and competent authorities shall certify such conditions and situation.

The contractor shall not be liable for any failure or delay in performance of his obligation under the contract, which is caused by circumstances beyond his control under force majeure.

Time extension shall be granted to the contractor in case where the procuring agency fails to fulfil its obligation regarding performance of the contract due to any reason not related with the contractor.

#### **7.16 Access to the service area**

Procuring agency and their authorized representative shall have access at all time to service area, offices of the contractor and any document, materials and record and accounts relating to the works and services performed under the contract for the purpose of inspections and reviews.

#### **7.17 Termination upon notice by procuring agency**

Procuring agency may terminate the contract upon 30 (thirty) days prior written notice to contractor in the event

- i) That contractor violets and continues to violation of any law applicable to the services, where the violation may have a material adverse effect on the management and operation of services under the contract.
- ii) Procuring agency may terminate the contract immediately upon the bankruptcy of the contractor or in other conditions as specified in the various clauses of the contract.

### **7.18 Termination by contractor**

The contractor may also terminate this contract upon 30 (thirty) days prior written notice to the procuring agency in the event

- i) That procuring agency's failure to perform its material obligations under this contract in timely manner. If the failure is not redressed properly by the procuring agency in 30 (thirty) days, but in no case such redressal is made beyond 90 (ninety) days except if procuring agency continues to pursue for redressal of such failure.

### **7.19 Work in emergency**

The contractor in case of emergency may be called upon to provide works and services as per scope of work under this contract and the contractor shall comply with such emergency orders of procuring agency without excuses. Non-compliance of the contractor shall lead to disqualification and will be dealt accordingly.

### **7.20 Payment of Income Tax**

The contractor, sub contractor and their employees shall be responsible for payment of all taxes such as income tax, sales / services and other taxes on income arising out of the contract and rate and prices quoted by the contractor shall be deemed to cover all such taxes.

### **7.21 Local Taxation**

The price quoted by the contractor shall include all customs duties, import duties, business taxes, income and other taxes that are levied in accordance with law and regulation in force in Pakistan as of the date, 28 days prior to the closing date for the submission of bid and taxes on vehicle machinery tools acquired for the purpose of the contract and on services performed under the contract. Nothing in the contract shall relieve the contractor from his responsibilities to pay taxes that may be levied in respect of the contract.

### **7.22 Liability of the contractor**

The contractor and their sub contractor or assignees shall follow strictly all relevant labour laws including workman's compensation act. The procuring agency shall be fully indemnified for all claims arising out of any damage by the contractor, his sub contractors or assignees and labour employed by them.

**7.23 Price List and B.O.Q.**

Item No	Description of Item	Unit	Quantity	Offer Unit Price (US \$) In Figure & in Words	Total Price (in US \$) In Figure & in Words
1.	Providing for and <b>collection of MSW waste, sweeping waste including cost of door-to-door collection</b> , management, operational, monitoring cost and cost of machineries, labours, sweepers, coolies, drivers, transportation, etc, cost of all taxes and other incidental cost as per the contract document.				
	A. District Municipal Corporation Malir	Tons	225935 Per Year		
	B. District Council Karachi Gadap Zone	Tons	96360 Per Year		
2.	Providing for and <b>manual sweepings of roads and streets</b> including management operational, monitoring cost, labour, drivers, coolies' cost and cost of tools and other incidental cost and cost of all taxes as per contract document.				
	A. District Municipal Corporation Malir	Kilo Meter	109443 Kilo Meter Per Year		
	B. District Council Karachi Gadap Zone	Kilo Meter	63238 Kilo Meter Per Year		
3.	Providing for and <b>manual sweeping of footpath, Greenbelts, medians, Roundabouts, open spaces</b> including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.				
	A. District Municipal Corporation Malir	Sq Kilo Meter	4.00 Square Kilo Meter Per Year		
	B. District Council Karachi Gadap Zone	Sq Kilo Meter	2.00 Square Kilo Meter Per Year		

4.	Providing for and <b>mechanical sweeping of roads</b> including management operational, monitoring cost, labour, drivers, coolies' cost and cost of tools and other incidental cost and cost of all taxes as per contract document.				
	A. District Municipal Corporation Malir	Per Kilo Meter	24480 KM Per Year		
	B. District Council Karachi Gadap Zone	Per Kilo Meter	8881 KM Per Year		
5.	Providing for and <b>mechanical washing of main roads</b> including management operational, monitoring cost, labour, drivers, coolies' cost and cost of tools and other incidental cost and cost of all taxes as per contract document.				
	A. District Municipal Corporation Malir	Per Kilo Meter	300 KM Per Year		
	B. District Council Karachi Gadap Zone	Per Kilo Meter	250 KM Per Year		
6.	Providing and supplying at site of works litterbins, metal buckets, metal container (tipping type) compatible with Solid Waste Machinery including painting of buckets, bins and containers in desired color including cost lettering as directed, cost of transportation, manufacturing etc. complete				
	a) Plastic Litterbin as per required standard having bin cubage of 0.24 to 0.3 Meter Cube				
	A. District Municipal Corporation Malir	Each	2300 Nos		
	B. District Council Karachi Gadap Zone	Each	500 Nos		
	b) Standard Metal Bucket of bin cubage				
	District Municipal Corporation Malir 1. 0.8 to 1.4 Meter Cube 2. 1.4 to 2 Meter Cube 3. 3.4 to 4 Meter Cube	Each Each Each	400 Nos 500 Nos 500 Nos		

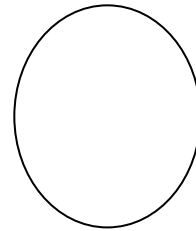
Sindh Solid Waste Management Board

	District Council Karachi Gadap Zone 1. 0.8 to 1.4 Meter Cube 2. 1.4 to 2 Meter Cube 3. 3.4 to 4 Meter Cube	Each Each Each	150 Nos 150 Nos 200 Nos		
	c) Metal Container of container cubage  District Municipal Corporation Malir 1. 6.6 Meter Cube 2. 10 Meter Cube 3. 12 Meter Cube 4. 16 Meter Cube	Each Each Each Each	75 Nos 100 Nos 75 Nos 100 Nos		
	District Council Karachi Gadap Zone 1. 6.6 Meter Cube 2. 10 Meter Cube 3. 12 Meter Cube 4. 16 Meter Cube	Each Each Each Each	25 Nos 50 Nos 75 Nos 50 Nos		
7.	Providing for and collection and transportation of offals and other sacrificial animal waste (on eve of Eid ul Azha) from door steps, roads, streets, lanes open ground i.e. from the whole area under contract including cost of collection, transportation and disposal to landfill site (Jam Chakro Landfill site) including cost of management, monitoring, labours, machinery, incidental cost and cost of all taxes etc. complete				
	A. District Municipal Corporation Malir	Ton	580 Ton Per Year		
	B. District Council Karachi Gadap Zone	Ton	350 Ton Per Year		

- I. Per Year cost of work and services for item listed in price list / B.O.Q. in Figures\_\_\_\_\_
- II. Per Year cost of work and services for item listed in price list / B.O.Q. in words\_\_\_\_\_
- III. Discount on account of labours/workforce obtained from DMC & District Council Malir. Total Amount Per Year\_\_\_\_\_

IV. Net Cost of Works and services for item listed in Price List/B.O.Q in Figures\_\_\_\_\_

V. Net Cost of Works and services for item listed in Price List/B.O.Q in Words\_\_\_\_\_



Seal & Signature

Name of Contractor/Bidder \_\_\_\_\_

Address: \_\_\_\_\_

Landline & Cell # : \_\_\_\_\_

Fax # : \_\_\_\_\_

e-mail address : \_\_\_\_\_

## 7.24 Form of BID

### FORM OF BID

Bid Reference No. \_\_\_\_\_  
(Name of Contract/Work)

To:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1. Having examined the bidding documents including Instructions to Bidders, Bidding Data, and Conditions of Contract, Specifications and Bill of Quantities and Addenda Nos. \_\_\_\_\_ for the execution of the above-named work, we/I, the undersigned, offer to execute and complete the work and remedy any defects therein in conformity with the Conditions of Contract, Specifications, Bill of Quantities and Addenda for the sum of US Dollar \_\_\_\_\_ (\$ \_\_\_\_\_) or such other sum as may be ascertained in accordance with the said conditions.
2. We/I understand that all the Annexure attached hereto form part of this bid.
3. As security for due performance of the undertakings and obligations of this bid, we/I submit herewith a bid security in the amount of US Dollar \_\_\_\_\_ (\$ \_\_\_\_\_) drawn in your favour or made payable to procuring agency and valid for a period of \_\_\_\_\_ days beginning from the date, bid is opened.
4. We/I undertake, if our bid is accepted, to commence the works and to complete the whole of the works comprised in the contract within the time stated in the contract document.
5. We/I agree to abide by this bid for the period of \_\_\_\_\_ days from the date fixed for opening the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We do hereby declare that the bid is made without any collusion, comparison of figures or arrangement with any other bidder for the works.

We understand that you are not bound to accept the lowest or any bid you may receive.

9. We undertake, if our/my bid is accepted, to execute the Performance Security referred to in Conditions of Contract for the due performance of the Contract.

10. We confirm, if our bid is accepted, that all partners of the joint venture/consortium shall be liable jointly and severally for the execution of the Contract and the composition or the



Sindh Solid Waste Management Board

constitution of the joint venture/consortium shall not be altered without the prior consent of the procuring agency.

*(Please delete this in case of Bid form a single bidder)*

in the capacity of \_\_\_\_\_duly authorized to sign Bids for and on behalf of

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_  
(Name of Bidder in Block Capitals) (Seal)

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Witness:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Occupation: \_\_\_\_\_

## **Section VIII**

### **Annexure**

**Section VIII****Annexure**

<b><u>Bin Qasim Zone</u></b>	
Annexure-1	MSW Details in Each Union Council
Annexure-2	Statistics of House Hold Units
Annexure-3	Road, Footpath, Median & Open Spaces
<b><u>Malir Zone</u></b>	
Annexure-4	MSW Details in Each Union Council
Annexure-5	Statistics of House Hold Units
Annexure-6	Road, Footpath, Median & Open Spaces
<b><u>Gadap Zone</u></b>	
Annexure-7	MSW Details in Each Union Council
Annexure-8	Statistics of House Hold Units
Annexure-9	Road, Footpath, Median & Open Spaces
Annexure-10	Salaries Bin Qasim Zone
Annexure-11	Salaries Malir Zone
Annexure-12	Salaries of Gadap Zone
Annexure-13	Existing SW Machinery in Bin Qasim Zone
Annexure-14	Existing SW Machinery in Malir Zone
Annexure-15	Existing SW Machinery in Gadap Zone
<b><u>Forms</u></b>	
Annexure-16	Performance Guarantee format
Annexure-17	Integrity Pact.
Annexure-18	Format for Contract Agreement

## MSW Details in Each Union Council of Bin Qasim Zone DMC Malir (including Sweeping waste and land scape waste)

### Annexure-1

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per anum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Ibrahim Hayderi	43583	66176	99264	28.4	37.72		0	15	3
2	2	Rehri	31506	47838	71757	37.35	27.27		0	14	0
3	3	Cattle Colony	41969	63725	95587	8.93	36.32	7.10	0	20	1
4	4	Quaidabad	58060	88158	132237	13.65	50.25	9.42	0	16	2
5	5	Landhi	39201	59522	89283	72.82	33.93		0	35	2
6	6	Gulshan-e-Hadeed	65242	99063	148594	18.74	56.47	2.70	0	10	0
7	7	Ghaghar	37123	56367	84550	305.81	32.13		0	14	0
<b>Total</b>		<b>07 UC</b>	<b>316684</b>	<b>480849</b>	<b>721272</b>	<b>485.70</b>	<b>274.08</b>		<b>0</b>	<b>124</b>	<b>8</b>

**Note:** The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

## Statistics of Household Unit in Bin Qasim Zone, DMC Malir.

### Annexure-2

S. No.	Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per anum	Statistics of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/d)
	UC #	Name								
1	1	Ibrahim Hayderi	28.40	43583	99264	728	1658	Low to Middle	Congested	37.72
2	2	Rehri	37.35	31506	71757	6169	14050	Low to Middle	Congested	27.27
3	3	Cattle Colony	8.93	41969	95587	5233	11918	Low to Middle	Vast & Congested	36.32
4	4	Quaidabad	13.65	58060	132237	8194	18663	Low to Middle	Vast & Congested	50.25
5	5	Landhi	72.82	39201	89283	6810	15510	Low to Middle	Vast & Congested	33.93
6	6	Gulshan-e-Hadeed	18.74	65242	148594	9388	21382	High to Middle	Vast & Congested	56.47
7	7	Ghaghar	305.81	37123	84550	7582	17268	High to Middle	Vast & Congested	32.13
<b>Total</b>		<b>07 UC</b>	<b>485.70</b>	<b>316684</b>	<b>721272</b>	<b>44104</b>	<b>100450</b>			<b>274.08</b>

**Note:**

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi Malir, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

**Road, Footpath, Medians & Open spaces in Bin Qasim Zone, DMC Malir.**

						Annexure-3	
S. No.	Road Category	Area of the Zone (Sq KM)	Methodolgy of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads	485.70	Mechanical Sweeping	35000	a) 30 to 36 Dual Carriageway	1155000	
				45000	b) 18 to 30 Single Carriageway	1080000	
B	Secondary Main Roads		Manual Sweeping	102400	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	1536000	
	Streets			179200	b) 12 to 15 Single Carriage (internal roads)	2419200	
	Narrow Lane			171520	c) less then 9 Meters (Back Lane/ Narrow Lane)	1543680	
C	Medians		Manual Sweeping		a) 01 Meter	4500	
	Footpaths		Manual Sweeping		b) 01 to 02 Meter	5750	
D	Chowrangi		Manual Sweeping			2700	
E	Open Spaces		Manual Sweeping			5500	
Total						7752330	

**Note:** The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

## MSW Details in Each Union Council of Malir Zone, DMC Malir (including Sweeping waste and landscape waste)

### Annexure-4

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per anum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Model Colony	63803	96878	145317	3.92	55.22	5.68	0	19	1
2	2	Kala Bard	57997	91100	136650	1.59	51.93	4.25	0	25	1
3	3	Saudabad	59676	90611	135916	1.53	51.65	5.27	0	10	2
4	4	Khokhrapar	57807	87773	131659	1.82	50.03	6.98	0	15	4
5	5	Jaffar e Tayyar	54176	82260	123390	2.17	46.89	5.79	0	20	2
6	6	Gharabad	52917	80349	120523	4.30	45.80	6.44	0	30	2
7	7	Ghazi Brohi	49914	75789	113683	3.07	43.20	4.05	0	38	0
<b>Total</b>		<b>07 UC</b>	<b>396290</b>	<b>604760</b>	<b>907138</b>	<b>18.40</b>	<b>344.71</b>		<b>0</b>	<b>157</b>	<b>12</b>

**Note:** The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

## Statistics of Household Unit in Malir Zone, DMC Malir.

									<b>Annexure- 5</b>	
S. No.	Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per anum	Statistics of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/d)
	UC #	Name								
1	1	Model Colony	3.92	63803	145317	1369	3118	High Income	Widely Spread	55.22
2	2	Kala Bard	1.59	57997	136650	7863	18526	Middle Income	Congested	51.93
3	3	Saudabad	1.53	59676	135916	8353	19025	Middle Income	Congested	51.65
4	4	Khokhrapar	1.82	57807	131659	7989	18195	Middle Income	Congested	50.03
5	5	Jaffar e Tayyar	2.17	54176	123390	6775	15431	Middle Income	Congested	46.89
6	6	Gharabad	4.30	52917	120523	3013	6862	Low Income	Congested	45.80
7	7	Ghazi Brohi	3.07	49914	113683	7294	16613	Low to Middle Income	Widely Spread	43.20
<b>Total</b>		<b>07 UC</b>	<b>18.40</b>	<b>396290</b>	<b>907138</b>	<b>42656</b>	<b>97643</b>			<b>344.71</b>

**Note:**

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi Malir, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.



**Road, Footpath, Medians & Open spaces in Malir Zone, DMC Malir.****Annexure-6**

S. No.	Road Category	Area of the Zone (Sq KM)	Methodolgy of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads	18.40	Mechanical Sweeping	20000	a) 30 to 36 Dual Carriageway	660000	
				15000	b) 18 to 30 Single Carriageway	360000	
B	Secondary Main Roads		Manual Sweeping	51150	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	767250	
	Streets			136400	b) 12 to 15 Single Carriage (internal roads)	1841400	
	Narrow Lane			119350	c) less then 9 Meters (Back Lane/ Narrow Lane)	1074150	
C	Medians		Manual Sweeping		a) 01 Meter	9890	
D	Footpaths		Manual Sweeping		b) 01 to 02 Meter	13070	
E	Chowrangi		Manual Sweeping			1050	
F	Open Spaces		Manual Sweeping			3000	
Total						4729810	

**Note:** The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work , the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

## MSW Details in Each Union Council of Gadap Zone District Council Karachi (including Sweeping waste and landscape waste)

### Annexure-7

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per anum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Murad Memon	37888	57529	86293	19.84	34.52	0.00	0	50	0
2	2	Darsana Channo	30470	46265	69397	270.87	27.76	0.00	0	60	0
3	3	Gujro	30294	75708	113562	36.81	45.42	0.00	0	70	2
4	4	Gadap	49861	45998	68997	1126.44	27.60	0.00	0	100	0
5	5	Songal	29540	44853	67279	411.52	26.91	0.00	0	70	0
6	6	Maymarabad	33739	64360	96540	11.52	38.62	2.41	0	50	0
7	7	Yousuf Goth	40387	51229	76843	4.70	30.74	3.92	0	40	0
8	8	Manghopir	35385	53728	80592	97.90	32.24	0.00	0	80	0
<b>Total</b>		<b>08 UC</b>	<b>287564</b>	<b>439670</b>	<b>659503</b>	<b>1979.60</b>	<b>263.80</b>		<b>0</b>	<b>520</b>	<b>2</b>

**Note:**

The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

## Statistics of Household Unit in Gadap Zone, District Council Karachi

### Annexure-8

S. No.	Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per anum	Statistics of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/d)
	UC #	Name								
1	1	Murad Memon	19.84	37888	86293	6740	15351	Low to Middle	Congested	34.52
2	2	Darsana Channo	270.87	30470	69397	5859	13344	Low	Widely Spread	27.76
3	3	Gujro	36.81	30294	113562	7288	27320	Low	Congested / Spread	45.42
4	4	Gadap	1126.44	49861	68997	6207	8589	Low to Middle	Widely Spread	27.60
5	5	Songal	411.52	29540	67279	6384	14540	Low to Middle	Widely Spread	26.91
6	6	Maymarabad	11.52	33739	96540	6307	18047	Low to Middle	Congested / Spread	38.62
7	7	Yousuf Goth	4.70	40387	76843	5159	9816	Low	Thickly Congested	30.74
8	8	Manghopir	97.90	35385	80592	8772	19979	Low to Middle	Partially Congested	32.24
<b>Total</b>		<b>08 UC</b>	<b>1979.60</b>	<b>287564</b>	<b>659503</b>	<b>52716</b>	<b>120900</b>			<b>263.80</b>

**Note:**

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi DCK, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

## Roads, Footpaths, Medians &amp; Open spaces in Gadap Zone District Council Karachi

**Annexure- 9**

S. No.	Road Category	Area of the Zone (Sq KM)	Methodolgy of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads	1979.60	Mechanical Sweeping	26420	a) 30 to 36 Dual Carriageway	871860	
				8830	b) 18 to 30 Single Carriageway	211920	
B	Secondary Main Roads		Manual Sweeping	91050	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	1365750	
	Streets			235650	b) 12 to 15 Single Carriage (internal roads)	3181275	
	Narrow Lane			112450	c) less then 9 Meters (Back Lane/ Narrow Lane)	1012050	
C	Medians		Manual Sweeping		a) 01 Meter	9890	
D	Footpaths		Manual Sweeping		b) 01 to 02 Meter	14670	
E	Chowrangi		Manual Sweeping			800	
F	Open Spaces		Manual Sweeping			1000	
Total						6669215	

**Note:** The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work , the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

**Existing Budget (2015-2016) on Solid Waste Management  
of Bin Qasim Zone, DMC Malir.**

**(Salaries)**

**Annexure-10**

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b>Office Staff</b>								
1	Director Health	17/18	1	25940-1950-64940	309600	319236	86688	5700	721224
2	Assistant	14	1	10340-790-34040	106980	109941	29954	2850	249725
3	J / Clerk	7	6	7490-415-19940	722426	834851	202279	9986	1769542
4	Junior Clerk	7	28	7490-415-19940	2535796	3282369	710023	46550	6574738
5	N / Qasid	2	5	6335-220-12935	398859	557379	111680	10106	1078024
	<b>Overtime/Benefits</b>								
<b>Total</b>			<b>41</b>		<b>4073661</b>	<b>5103776</b>	<b>1140624.3</b>	<b>75192</b>	<b>10393253.28</b>

## Existing Budget (2015-2016) on Solid Waste Management of Bin Qasim Zone

### (Salaries)

### Annexure-10

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b>Field Staff</b>								
1	CSI	17	2	20680-1555-51780	280800	301572	78624	5700	666696
2	MVI	16	1	12910-1035-43960	198400	238052	55552	4275	496279
3	Inspector	16	3	12910-1035-43960	549340	638519	153815.2	17100	1358774
4	AMVI	14	1	8000-610-26300	206410	202006	57794.8	2850	469061
5	Sub Inspector	9	5	6200-380-17600	414700	571085	116116	8312.5	1110214
6	Loader Driver	7	3	5800-320-15400	240480	327942	67334.4	4987.5	640744
7	Dumper Driver	7	4	5800-320-15400	320240	437116	89667.2	6650	853673
8	Mukadam	7	7	5800-320-15400	718070	865611	201059.6	11637.5	1796378
9	Cleener	4	8	5400-260-13200	1807400	2841406	506072	39900	5194778
10	Kundhi Man	2	60	4900-170-10000	5310788	8515044	1441524.6	156729	15424086
11	Sanitary Worker	2	351	4900-170-10000	26279268	38048746	7358195	606157	72292366
<b>Total</b>			<b>445</b>		<b>36325896</b>	<b>52987099</b>	<b>10125755</b>	<b>864298.5</b>	<b>100303048.3</b>

## Existing Budget (2015-2016) on Solid Waste Management of Malir Zone, DMC Malir

### (Salaries)

### Annexure- 11

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b>Office Staff</b>								
1	Director Hralth	18	1	25940-1950-64940	352695	333970	98754.6	9144	794563.6
2	DTO	17	1	20680-1555-51780	240660	219766	67384.8	6270	534080.8
3	Office Assistant	14	1	10340-790-34040	165900	196590	46452	3135	412077
4	Data Entary Oprator	12	1	9055-650-28555	119910	160391	33574.8	3135	317010.8
5	Sr Clerk	9	1	8015-495-22865	150150	195015	42042	1829	389036
6	Jr Clerk	7	17	7490-415-19940	1428000	2040000	399840	28400	3896240
7	Qasid	4	3	6730-300-15730	368865	439787	103282.2	4703	916637.2
8	N/Qasid	2	40	6335-220-12935	3692535	5048154	1033909.8	98740	9873338.8
9	Khudmatgar	2	1	6210-195-12060	104790	131079	29341.2	1568	266778.2
10	Notic Server	2	1	6210-195-12060	104790	131079	29341.2	1568	266778.2
11	Chowkidar	2	10	6335-220-12935	705180	1124218	197450.4	15675	2042523.4
12	N/Qasid	1	29	6210-195-12060	2135595	3221760	597966.6	75229	6030550.6
	<b>Overtime/Benefits</b>								
<b>Total</b>			<b>106</b>		<b>9569070</b>	<b>13241809</b>	<b>2679339.6</b>	<b>249396</b>	<b>25739614.6</b>

## Existing Budget (2015-2016) on Solid Waste Management of Malir Zone, DMC Malir

### (Salaries)

### Annexure- 11

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b>Field Staff</b>								
1	CSI	16	1	12910-1035-43960	192360	177036	53860.8	4703	427959.8
2	MVI	14	2	10340-790-34040	166845	195485	46716.6	6270	415316.6
3	Health Inspector	14	2	10340-790-34040	292110	315111	81790.8	6270	695281.8
4	SSI	11	2	8540-595-26390	393330	410833	110132.4	6270	920565.4
5	Sub Inspector	7	4	7490-415-19940	672735	730374	188365.8	12540	1604014.8
6	Driver	5	23	6985-340-17185	3568005	4022701	999041.4	42061	8631808.4
7	Time Keeper	5	1	6985-340-17185	105798	125530	29623.44	1829	262780.44
8	Munshi	5	4	6985-340-17185	465045	571805	130212.6	7315	1174377.6
9	Muccadam	4	18	6730-300-15730	2365811	2810281	662426.98	28215	5866733.98
10	Clener	4	1	6730-300-15730	101955	129896	28547.4	1568	261966.4
11	Motor Cooly	2	16	6335-220-12935	402045	510505	112572.6	25080	1050202.6
12	Sanitary Worker BPS-02	2	263	6335-220-12935	21300536	24907488	5964150.2	493716	52665890.15
13	Sanitary Worker BPS-01	1	105	6210-195-12060	15450540	22567254	4326151.2	205319	42549264.2
	<b>Overtime/Benefits</b>					7000000			7000000
<b>Total</b>			<b>442</b>		<b>45477115</b>	<b>64474299</b>	<b>12733592</b>	<b>841156</b>	<b>123526162.2</b>



## Existing Budget (2015-2016) on Solid Waste Management of Gadap Zone District Council

### (Salaries)

### Annexure- 12

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b><u>Office Staff</u></b>								
1	Director (Sanitation)	17	1	16000-1200-40000	244860	234375	68560.8	5700	553495.8
2	Motor Vehicle Incharge	16/17	1	16000-1200-40000	199200	229080	55776	5700	489756
3	Chief Sanitary Inspector	16/17	1	16000-1200-40000	230600	183228	64568	5700	484096
4	Assistant	14	2	8000-610-26300	245261	265804	68673.08	5700	585438.08
6	Data Entry Operator	12	1	9055-650-28555	106625	121469	29855	2850	260799
8	Junior Clerk	7	9	5800-320-15400	954113	1087746	267151.64	14962.5	2323973.14
	<b>Overtime/Benefits</b>				198066	510155			708221
<b>Total</b>			<b>15</b>		<b>2178725</b>	<b>2631857</b>	<b>554584.52</b>	<b>40612.5</b>	<b>5405779.02</b>

## Existing Budget (2015-2016) on Solid Waste Management of Gadap Zone District Council

### (Salaries)

### Annexure- 12

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	<b>Field Staff</b>								
1	Sanitary Inspector	14	4	8000-610-26300	724702	576303	202917	11400	1515322
2	Sub-Inspector	11	4	6600-460-20400	500296	528153	140083	11400	1179932
3	Driver	5	22	5400-260-13200	1915586	2122859	536364	36575	4611384
4	Jamadar Muqadam	4	15	5200-230-12100	1063945	1200609	297905	21375	2583834
5	Helper / Cleaner	( 3 - 4 )	16	5200-230-12100	1730060	1741670	484417	22800	3978947
6	Sanitary Worker	( 1 - 2 )	378	4900-170-10000	29014403	34669954	8226467	538650	72449474
13									
	<b>Overtime/Benefits</b>				3494899	1020311			4515210
<b>Total</b>			<b>439</b>		<b>38443891</b>	<b>41859859</b>	<b>9888152</b>	<b>642200</b>	<b>90834102</b>

## Existing Solid Waste Machinery / Vehicles in Bin Qasim Zone DMC Malir

**Annexure- 13**

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	11255	Hino Dutro	Dumper	2008	On Road
2	11256	Hino Dutro	Dumper	2008	On Road
3	11252	Hino Dutro	Dumper	2008	On Road
4	11257	Hino Dutro	Dumper	2008	On Road
5	11252	Hino Dutro	Dumper	2008	On Road
6	11258	Hino Dutro	Dumper	2008	On Road
7	11253	Hino Dutro	Dumper	2008	On Road
8	11259	Hino Dutro	Dumper	2008	On Road
9	11254	Hino Dutro	Dumper	2008	On Road
10	11260	Hino Dutro	Dumper	2008	On Road
			<b>10 Nos Dumper</b>		
1	13484-16042	Hino	Refuse Van	2002	On Road
2	13524-16082	Hino	Refuse Van	2002	On Road
			<b>02 Nos Refuse Van</b>		
1	13707	Hino	Compactor		off Road
			<b>01 Nos Compactor</b>		
1	GL-7291	LG	Tractor	2004	On Road
2	GL-7290	LG	Tractor	2004	On Road
3	GL-7287	LG	Tractor	2004	Off Road
4	GL-7292	LG	Tractor	2004	Off Road
5	GL-7289	LG	Tractor	2004	Off Road
6	GL-7288	LG	Tractor	2004	On Road
7	GL-7293	LG	Tractor	2004	On Road
8	502165	Messy	Tractor	2002	On Road
9	300254-0102		Tractor		On Road
			<b>09 Nos Tractor</b>		
1	N-7-94	Komatsu	Skid Loader	2004	on Road
2	8G1415	Bob Cat	Skid Loader	2011	on Road
1	L-30		Skid Loader	2013	On Road
			<b>03 Nos Skid Loader</b>		
1	GL-4711	Suzuki	Pickup	2007	On Road
2	GL-4710	Suzuki	Pickup	2007	On Road
3	GL-4709	Suzuki	Pickup	2007	On Road
4	GL-4708	Suzuki	Pickup	2007	On Road
5	GL-4307	Suzuki	Pickup	2007	On Road
6	GL-4306	Suzuki	Pickup	2007	On Road
7	GL-4305	Suzuki	Pickup	2007	On Road
8	GL-4304	Suzuki	Pickup	2007	On Road
9	GL-4302	Suzuki	Pickup	2007	On Road
10	GL-4301	Suzuki	Pickup	2007	On Road
11		Suzuki	Pickup	2007	On Road
			<b>11 Nos Pickup</b>		

## Existing Solid Waste Machinery / Vehicles in Malir Zone, DMC Malir

<b>Annexure- 14</b>					
S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	100980	Volvo	Arm Roll		Off Road
2	10039	Hino	Arm Roll		Off Road
<b>Total</b>			<b>02 Arm Roll</b>		
1	19082	Kumstu	Bob Kat		Off Road
2	175	Case	Bob Kat		Off Road
<b>Total</b>			<b>02 Bob kat</b>		
1	3600530	Hino FTR	Compactor		Off Road
<b>Total</b>			<b>01 Cmpactor</b>		
1	638	China	Mini Loader		On Road
<b>Total</b>			<b>01 Mini Loader</b>		
1	10782	Hino	Open Truck		On Road
2	16039	Hino FF	Open Truck		On Road
3	893	Bed Ford	Open Truck		On Road
4	159487	Volvo	Open Truck		Off Road
5	3141	Bed Ford	Open Truck		Off Road
6	8920	Bed Ford	Open Truck		Off Road
7	8972	isuzu	Open Truck		Off Road
8	3600533	Hino FTR	Open Truck		Off Road
<b>Total</b>			<b>08 Open Truck</b>		
1	9694	Balarus	Tractor Blade		On Road
2	6327	Maseyfrogosun	Tractor Blade		Off Road
<b>Total</b>			<b>02 Tractor Blade</b>		
1	5781	Balarus	Tractor Shawal		On Road
2	80015	Maseyfrogosun	Tractor Shawal		On Road
3	80019	Maseyfrogosun	Tractor Shawal		On Road
4	9696	Balarus	Tractor Shawal		On Road
5	107	Maseyfrogosun	Tractor Shawal		Off Road
6	8022	Maseyfrogosun	Tractor Shawal		Off Road
7	9983	Balarus	Tractor Shawal		Off Road
<b>Total</b>			<b>07 Tractor Shawal</b>		
1	5690	Balarus	Tractor Trolley		On Road
2	9695	Balarus	Tractor Trolley		On Road
3	95	Maseyfrogosun	Tractor Trolley		Off Road
4	67	Balarus	Tractor Trolley		Off Road
<b>Total</b>			<b>04 Tractor Trolley</b>		

## Existing Solid Waste Machinery / Vehicles in Gadap Zone District Council

### Annexure-15

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	REMARK
1	No.01	China	Loader	2008	
			<b>01 Nos Loader</b>		
1	No.03	New Holland	Bobcat	2015	
2	No.04	New Holland	Bobcat	2013	
3	No.02	Komatsu	Bobcat	2001	
4	No.01	Komatsu	Bobcat	2001	Out of order
			<b>04 Bobcat</b>		
1	No.03	Massey 385	Tractor Trolley	2001	Out of order
2	No-05	Massey 385	Tractor	2001	
3	No-01	Massey 385	Tractor	1998	
4	MP-11	Massey 385	Tractor	2004	
5	MP-12	Massey 385	Tractor	2004	
6	No.08	Massey 385	Tractor	2004	
7	No.09	Massey 385	Tractor	2004	
8	No.07	FIAT	Tractor	2004	Out of order
9	No.06	Russian	Tractor	1985	
10	No.04	Massey 240	Tractor	1985	
			<b>10 Tractor</b>		
1	4041	Hino	Dumper-4041	1985	
2	No.02	Hino	Dumper-01	2001	
			<b>02 Nos Dumper</b>		
1	No-01	Qinqui	M/C Rikshaw	2015	
2	No-02	Qinqui	M/C Rikshaw	2015	
3	No-03	Qinqui	M/C Rikshaw	2015	
4	No-04	Qinqui	M/C Rikshaw	2015	
5	No-05	Qinqui	M/C Rikshaw	2015	
			<b>05 Nos Dumper</b>		

## Format for Performance Guarantee

To be provided to the successful bidder/contractor  
after acceptance of the bid.

# Integrity Pact

## DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC; PAYABLE BY CONTRACTORS.

(FOR CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

..... [name of Contractor] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Contractor] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from, from Procuring Agency (PA) except that which has been expressly declared pursuant hereto.

[name of Contractor] accepts full responsibility and strict liability that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Contractor] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, [name of Supplier/Contractor/Consultant] agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Contractor] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from PA.

[ Procuring Agency]

[Contractor]

# Format for Contract Agreement

## To be provided at the time of Agreement