

Özkartallar Campak Joint Venture

Solid Waste Management Plan for Kareem Park (UC-68)



5th Floor Shaheen Complex, Egerton Road, Lahore

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Map of UC 68 Kareem Park



1. Introduction

Union Council – 68 (Kareem Park) is located in Data Gunj Baksh Town. Total area of the UC is 669355 m² with population of 64864¹. This area is predominantly middle income area with planned settlement.



Kareem Park Gol Bagh



Kareem Park Double Sarkain

Fig: 1. Pictorial View of Important Areas of UC-68

1.1 Important Places of Union Council-68

From Sanitation point of view Union Council-68 has important Places like Commercial Markets, Parks, Graveyard Important Roads, and Mosques etc.

Commercial Markets

- Riaz center kareem park
- Rafique Market
- Madina Shadi hall Makkah road

Parks

- Gol Bhag

Mosques

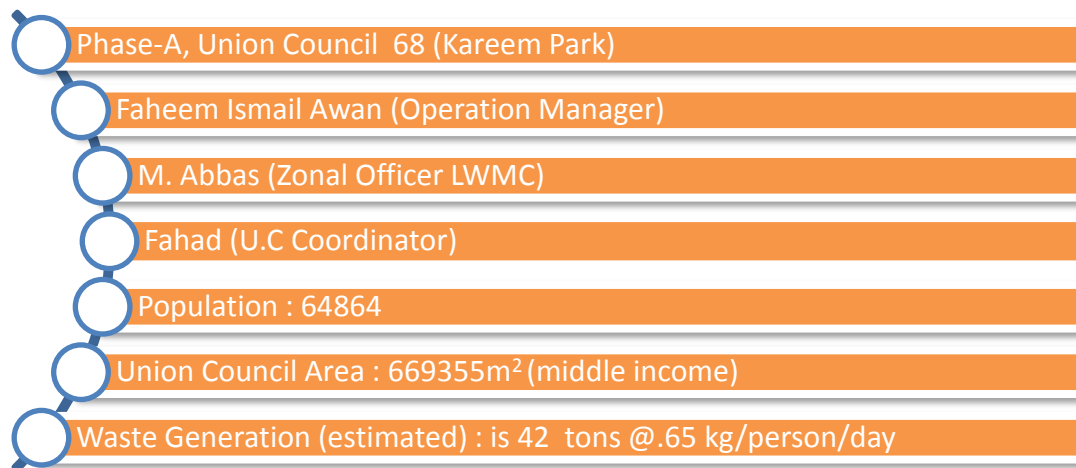
- Jamai Masjid Allah Wali (Block No 4)
- Jamai Masjid Hanfia Ghosia (Kareem Park)
- Jamai Madina Masjid (Kareem Park)
- Abu Bakar (Kareem Park)
- Jamai Masjid Gulzar e Madina (Gol Ground)
- Jamai Masjid Rehmian (Kareem Park)

1.2 Solid Waste Generation

Estimated solid waste generation is 42 metric tons per day @ waste generation rate of 0.65 kg/person/day.

¹ Punjab Development Statistics – 2011, Bureau of Statistics, Govt. of the Punjab

1.3 Particulars



2. Solid Waste Management Practices

This area is under control of M/s. OZPak J.V for solid waste management. Existing arrangements for SWM based upon actual operations are as follows:

3. Operational Activities - First Shift Plan

3.1 Manual Sweeping Operation

Manual sweeping of the roads, streets, markets, footpaths and every paved and unpaved passageway is being done with Sanitary Workers equipped with all necessary operational tools and PPE's (Personal protective equipment's)

- ✓ Manual sweeping in first shift is carried out from 6AM to 2PM.
- ✓ Personal protective equipment's include Proper uniform, Gloves, Mask, Proper Shoes, Long Boots and Rain Coat in case of monsoon Season.
- ✓ Operational Requirement for Sanitary Worker includes Broom, Shovel, Wheelie Bin, Waste Bags, Scrapper and Hand Cart.



Broom



Hand Cart



Wheelie Bin



Shovel



Proper Uniform with PPE's



Waste Bag



Scraper



Shovel 1



Monsoon SOP's (Long Boats & Rain Coat)

Fig: 3. Pictorial View of Operational Equipment's, PPE's & Monsoon SOP's for Sanitary Worker

- ✓ Sanitary Workers are managed by Sanitary Supervisors in Union Council and each sanitary worker has its own defined Beat (Area).
- ✓ During Manual Sweeping Operation in 1st Shift, Waste is also collected by sanitary workers from households i.e. collected from their house entrance.
- ✓ Waste Bags are also used by sanitary workers to collect waste from the roads, streets and households which are then hauled through wheelie bins and hand carts to the waste containers.

Manual Sweeping Operation Details



3.2 Solid Waste Collection Operation (Container Collection)

Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the the purpose of waste collection and dump the waste at temporary waste disposal station Outfall workshop.

Total 78 waste containers are in place in Union Council at 53 different Points.

- ✓ Total waste storage capacity in 76 containers is 19.5 tons in one time lifting.
- ✓ These Waste Containers are lifted by Hydraulic Compactor Vehicles having a Compaction Ratio of 1:3.
- ✓ Two Compactors (One Small & One Big) are deployed for waste collection in Union Council. Each compactor has two helpers equipped with all necessary operational tools and PPE's (Personal protective equipment's).
- ✓ Compactor's responsibility is to lift all the containers in its route during the shift and also to collect all open heaps from the roads and streets to maintain efficient cleanliness standards.



Compactor Hydraulic System



Compactor



Mini Dumper Hydraulic System



Mini Dumper

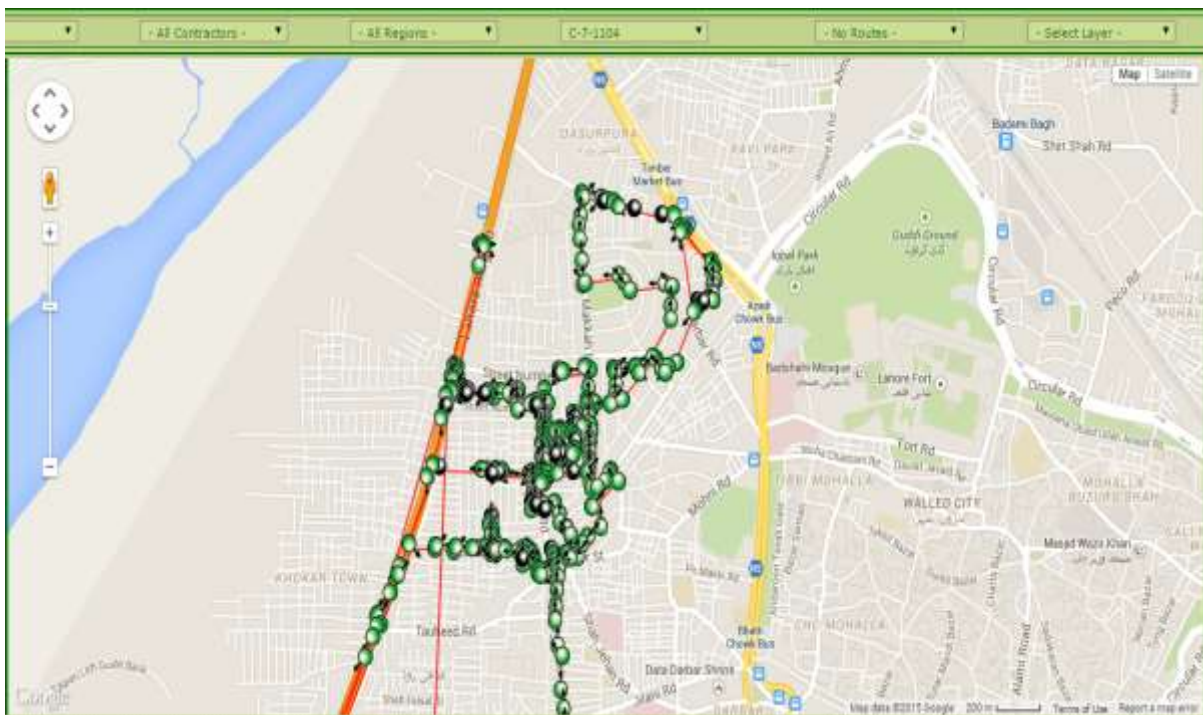


Fig. 4. Pictorial View of Vehicles & Operational Equipment's for Helpers

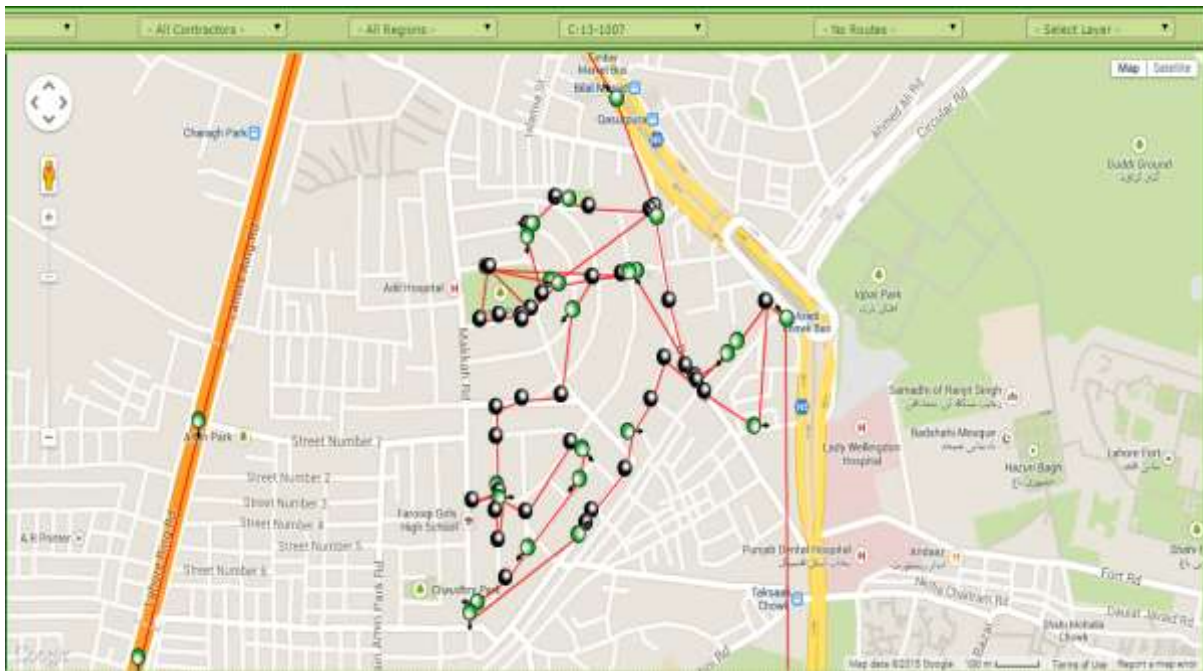
Solid Waste Collection Operation (Container Collection) Details

- Containers Placed: 78
- Container Points: 53
- Compactor Vehicles: C07-1104 & C13-1007 (C13 is 13m³ Compactor)
- Compactors Waste Collection: 7m³ Compactor can carry 4-5 tons of waste in single trip and 7m³ Compactor make two trips in 1st Shift and 13m³ Compactor make one trip of of 8-10 tons so the Collection Capacity in 1st Shift is 20 tons by 2 compactors

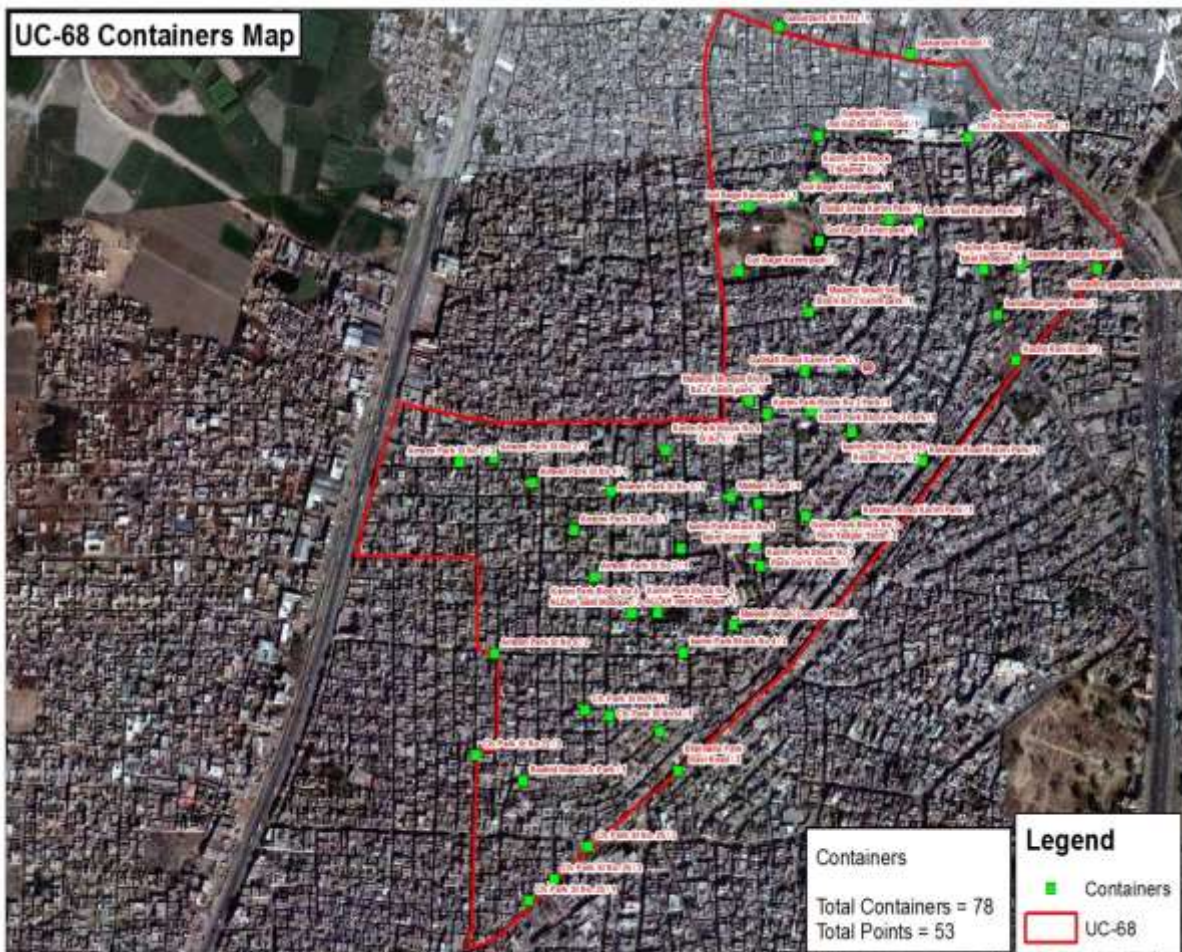
3.3 C-07-1104 Compactor Vehicle Route



3.4 C-13-1007 Compactor Vehicle Route



3.5 Container locations on Map UC 68



Map: 01. Location of Containers

3.6 Weekly Working Plan After 11:00 am (Areas):

Union Council-68	
Day	Areas to Cover
Monday	Gol Bagh + Double Sarkain
Tuesday	Makkah Road
Wednesday	Amir Park Main Bazar
Thursday	Rashid Road
Friday	Rehman Road
Saturday	Kacha Ravi Road

4. Operational Activities - Second Shift Plan

4.1 Solid Waste Collection Operation (Container Collection)

Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the the purpose of waste collection and dump the waste at temporary waste disposal station Outfall workshop.

Solid Waste Collection Operation (Container Collection) Details



Compactor Vehicles: C07-1113 (7m³ Compactors)



Compactor Waste Collection 2nd Shift: Compactor C07-1113 Covers Main Roads and Important Markets Containter Points covering Union Councils 67,68 and 69.

5. Operational Activities - Third Shift Plan

5.1 Manual Sweeping Operation

Manual Sweeping Operation is not carried out in 3rd Shift.

5.2 Solid Waste Collection Operation (Container Collection)

Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the purpose of waste collection and dump the waste at temporary waste disposal station outfall workshop.



Compactor Vehicles: C13-1016 (13m³ Compactors)



Compactor Waste Collection 3rd Shift: Compactor C13-1016 Covers Main Roads and Important Markets Containter Points and Problematic Points covering Union Councils 67,68,69,70 & 71

In third shift compactor collected waste from all containers of complete zone and used to dump at temporary disposal station at outfall workshop.

6. Compactor Vehicle Staff Deployment for Union Council 68

Detail of vehicles deployed in all three shift and contact number of responsible persons are given below:

Conservancy Staff Zone-15						
Overall Incharge = Fahim Ismail Awaz (0333-4405244)						
Supervisor = Babar (0320-8431703) & M Shahid (0346-4382320)			Overall Incharge = Ali Rajbi (0315-4533505)		Supervisor = Taj (0300-5258304)	
1st shift			2nd shift		3rd shift	
UC	Vehicle No.	Driver Name & Mobile	Vehicle No.	Driver Name & Mobile	Vehicle No.	Driver Name & Mobile
68	1104	Mirza Sabir (0300-4495629)	1113	Khawar	1016	Navid Nazir (0333-4556377)
	1007	Zubair (0333-4742099)				

Table: 02. Conservancy Staff UC-68

7. Door To Door Waste Collection

7.1 Old System for D-T-D Waste Collection

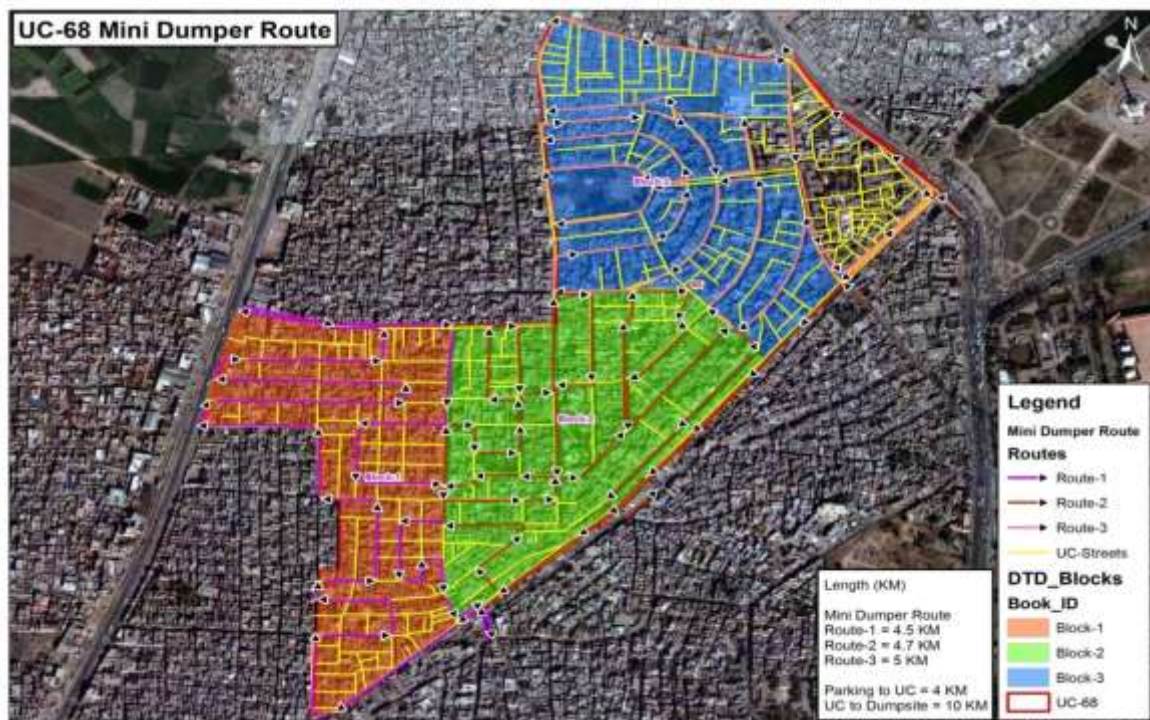
- ✓ A year ago Ozpak deployed one Mini Dumper in each Union Council to enhance the efficiency of Door to Door Waste Collection System but unfortunately they were not fulfilling the sole purpose of D-T-D Collection in Union Council.

- ✓ Mini Dumper was covering about 30%-40% of the UC area for the purpose of door to door waste collection and the 60%-70% area was dependent on old collection methods and our sanitary workers to collect waste from their door steps and dump it as an open heap.

7.2 New System for D-T-D Waste Collection

- ✓ Our Mini Dumper Door to Door Waste Collection System was working with 50-70 % efficiency but we have implemented a new plan due to which we are able to achieve 100% Door to Door Waste collection
- ✓ To make sure the efficiency of this plan to be 100% we collected all the background data necessary for the proper functioning of Mini Dumper in Union Council i.e. Original (Local) Names of Minor Streets and Roads to be displayed on the maps so that we can easily monitor and communicate with our responsible person during door to door collection Operation.

7.3 Door To Door Route Plan for Mini Dumper



7.4 Door to Door Collection Details

MD-26 is the code of mini dumper which is deployed for UC-68 working with OZPAK JINGLE and achieving 100% efficiency, collecting Door to Door waste. It start working in UC from 06:00 am and cover all areas of UC like Madina Masjid Wala Elaqa, Union Council Road, Kasoor Pora Wali Galli, Madina Shadi Haal, Hmadhi Ganga Ram, Karim Park Goal Bagh, Block No.2 Karim Park, Butt Baraf Wali Gali, Zahoor Ilahi Road, Kacha Ravi Road, Main Kacha Ravi Road, Nazim Wala Elaqa, Double Sarak Karim Park Etc. In

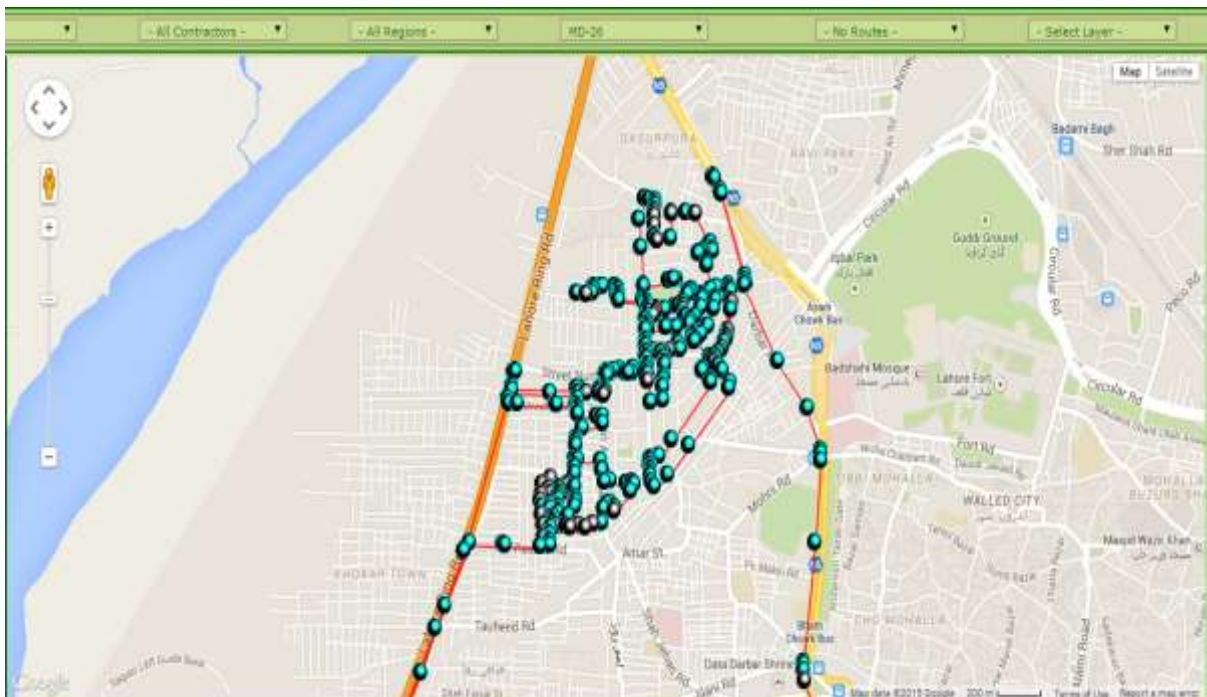
the narrow streets where mini dumper is unable to enter then it is helper duty to go inside and collect waste in shoppers from every house of the streets and finally dumped in the mini dumper.



Mini Dumper: MD-26

Mini Dumper Driver: Waqas (0313-0455069) with 1 Helper (Properly Equipped)

7.5 MD-24 Vehicle Route



8. Special Gang

Special gang is a team consists of Sanitary workers with a driver and a supervisor. Special Gang solely on Shef / ZO's disposal to attend important complaints and to work for absent workers beats of the day.

Special gang covers following activities:

- Open plot cleanliness
- Cleanliness of absent workers beats
- Important complaints (1139 and residents complaints)

- Main road clearness like (Chuburji to kachahri lower mall road, Kachari chowk to shell pump outfall road and People house to secretariat road)



9. Scope of Work (U.C Coordinator)

06:00AM-07:00AM

Attendance Points:

- ❖ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Gol Bagh Kareem park
 - Double Road Karim Park
 - Makkah Road
 - Amin Park Mian Bazar

Finding Problematic Points & Deployment of Human Resource and Machinery:

- ❖ Check arrival of Compactor and Mini Dumper in Union Council
- ❖ Deploy Human Resource on Main Roads, Commercial and Residential Areas
- ❖ Highlight important open heaps points and problematic over flowed containers to Compactor and Mini Dumper drivers to attend on priority.

07:00AM-09:00AM

- ❖ Check Manual Sweeping on Main Roads, Sanitary Workers Attendance and Containers Collection.
 - Gol Bagh Containers (6)
 - Double Road Karim Block + 2 Containers
 - Kacha Ravi Road + 3 Containers
 - Rahmat floor mill + 4 Containers
 - Kasur pura Main Road + 2 Containers
 - Makkah Road
 - Amin Park with containers

- Rehman Road + 2 Containers
 - Rashid Road + 3 Containers
- ❖ During Visit Focusing on Manual sweeping Quality, presence of worker in allocated area, Door to Door Collection efficiency and staying in touch with compactor driver for timely lifting of containers.

09:00AM-10:00AM

- ❖ Check Manual Sweeping, Worker Attendance, Container Collection & Door to Door Waste Collection in Inner (Residential) Areas.
- Tariq Streets + 2 Containers
 - Wapda Office Streets + 2 Containers
 - Libya Road Streets + 2 Containers
 - Kasur Pura Link Streets + 5 Containers
 - Block No 2 bajwa Street + 1 Container
 - Allah Masjid block No 4 + 4 Containers
 - Amin Park Street + 7 Containers
 - Chaudhry Park + 8 Containers
 - Shah Jahan Street + 2 Containers

10:00AM-10:11AM

- Break Time from 10:00am to 11:00am
- Door to door Mini Dumpers checking

11:00AM-01:30PM

- ❖ Divide work force in groups to cover empty areas, absent worker area, problematic areas are and open plots.
- ❖ Send workers in group in empty areas and on open plots daily according to a fix schedule
- ❖ Check working in empty areas, open plots.
- ❖ Resolve PMS & 1139 Complaints on priority basis if any
- ❖ Checking again main roads manual sweeping & container collection including some problematic container points.
- Gol Bagh Containers (6)
 - Double Road Karim Block + 2 Containers
 - Kacha Ravi Road + 3 Containers
 - Rahmat floor mill + 4 Containers
 - Kasur pura Main Road + 2 Containers
 - Makkah Road
 - Amin Park with containers
 - Rehman Road + 2 Containers
 - Rashid Road + 3 Containers

- ❖ In Final Round Checking focus is to check Group Working, Main Roads Sweeping and Container Collection of important Points.

01:30AM-02:00PM

- ❖ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Gol Bagh Kareem park
 - Double Road Karim Park
 - Makkah Road
 - Amin Park Mian Bazar

10. Public Awareness

- Distribution of leaflets along-with bags distribution has been done as per contract.
- Announcement(OZPAK JINGLE) of waste collection when pickup will move in the area.
- Involvement of public representatives in mass awareness campaign

10. Recommendations

Union Council-68 is comparatively a good UC with a good infrastructure of roads and Houses. It covers several important Markets like Makka Road Market, Gol Bagh Market and also the Sunday Market. That's why Sanitation Condition of this Union Council is quite important and must be maintained effecinetly to maintain good quality sanitation standards in important markets and in this good infracstructured area. So the deployment of additional sanitary workers at these points is necessary.