

Özkartallar Campak Joint Venture

Solid Waste Management Plan for Kot Shahab Din (UC- 03)



By

*Muhammad Hassan
Deputy Manager Operations*

5th Floor Shaheen Complex, Egerton Road, Lahore

Map of UC 03 Kot Shahab Din

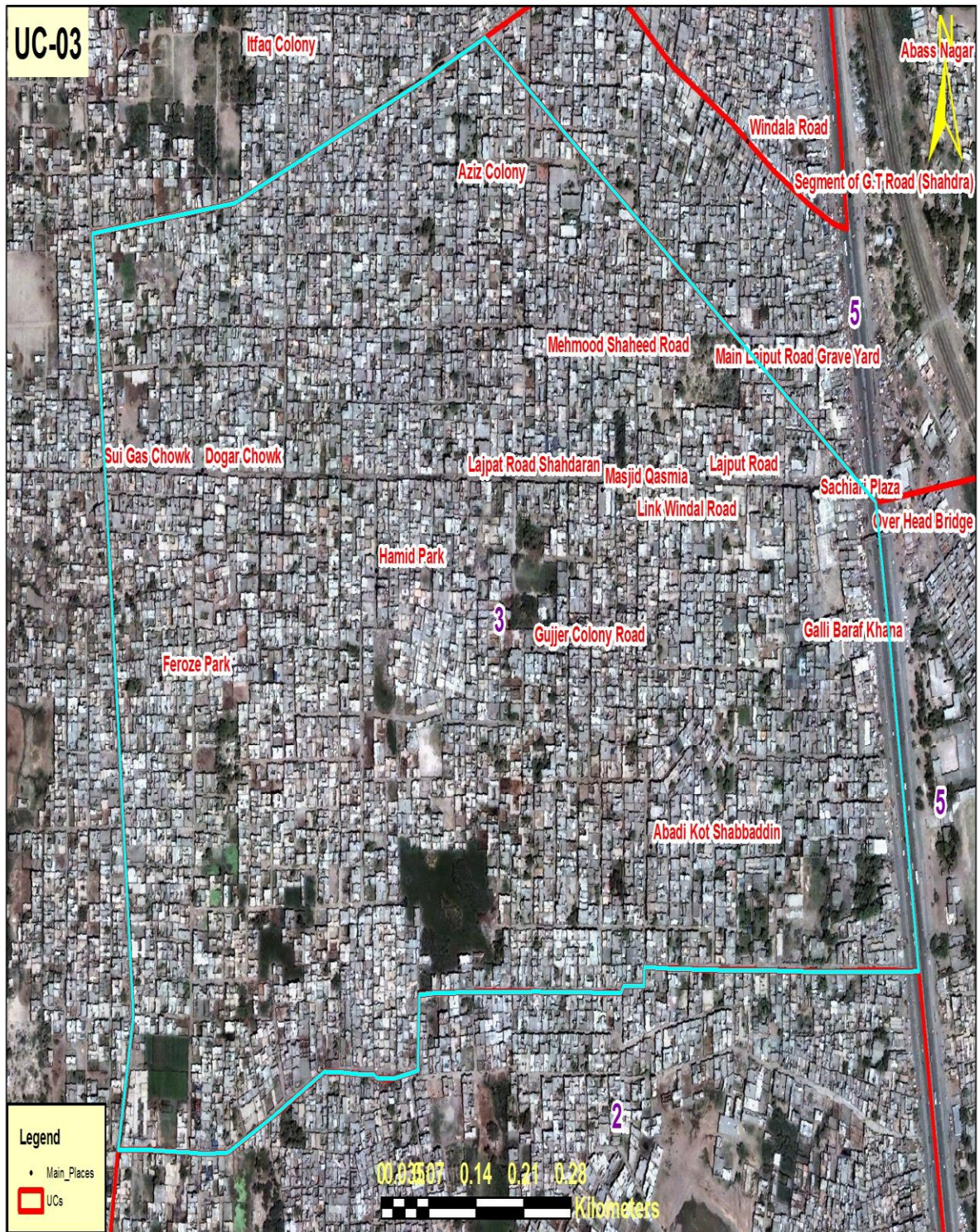


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1. INTRODUCTION

Union Council – (Kot Shahab Din) is located in Ravi Town. Total population of UC-03 is 71864 with area 897109 m² and predominantly low income area with unplanned settlement/infrastructure.



GT Road



Mandi Road

Fig: 1. Pictorial View of Important Areas of UC-03

1.1. IMPORTANT PLACES OF UNION COUNCIL-03

From Sanitation point of view Union Council-03 has important Places like Commercial Markets, Parks, Graveyard Important Roads, and Mosques etc.

Commercial Markets

- Doolat Khan Road
- Wandala Road

Graveyards

- Lajpat Road
- Chatha park

Important Roads

- Main G T Road

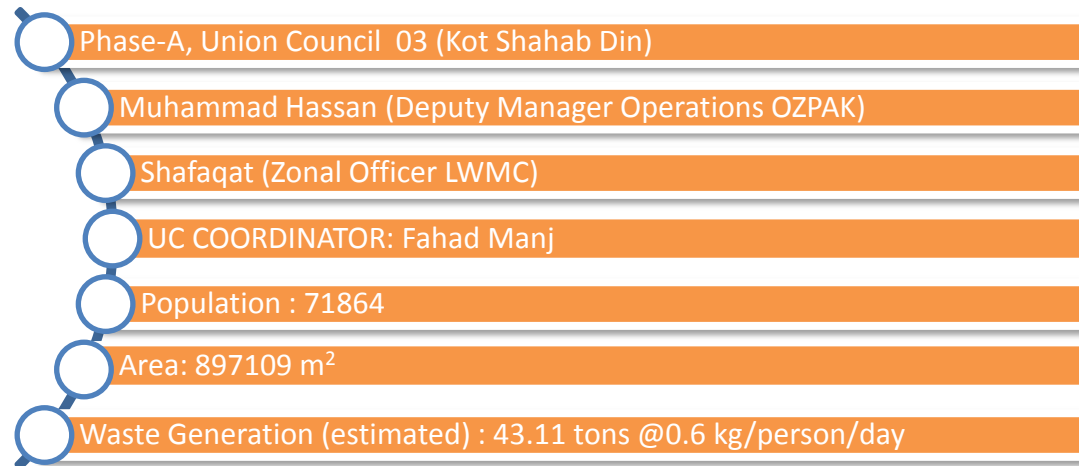
Mosques

- Jamiya masjid shakuria rizwiya(Hameed park)
- jamiya masjid Ibrahim(Hameed parkn streen no 1 shahdra)
- Jamiya masjid Hanfia Ghosia(Feroz park)
- Jamiya masjid Aqsa(muhalla Islam nagar gulzar colony shahdra)
- Jamiya masjid Salmaan Farsi(Aziz colony shahdra)
- Madrissa Abuzar Ghaffari(Aziz colony shahdra)
- Jamiya masjid Hanfia Rizwiya(GT road kot shahbuddin)
- Jamiya masjid Rizwan(MPA house kot shahbuddin)
- Jamiya masjid Qasmi, madrissa Qasmia(street no 6 lajpat road)
- jamiya masjid Toheed-o-Risalat(Jinah park main street)

1.2. SOLID WASTE GENERATION

Estimated solid waste generation is 43.11 metric tons per day @ waste generation rate of 0.6 kg/person/day.

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:

2.1 . OPERATIONAL ACTIVITIES - FIRST SHIFT PLAN

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



Whellie 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 wheellie bins and hand carts to the waste containers.
- ✓ Furthermore to increase the efficiency of waste collection we are distributing waste bags daily to every vendor on main roads(to stop littering and open heaps of waste)



Waste Bags Distribution in GT Road Mandi Vendors

MANUAL SWEEPING OPERATION DETAILS

- Sanitary Workers Strength: 38
- Sanitary Supervisors: 1
- Wheelie Bins: 4
- Hand Carts: 29
- Waste Bags: 15 Sacks of waste bags Every Month (1 sack = 400-500 Waste Bags)
- Brooms: 2 Bags of Brooms Every Month (1 Bag = 70 Broom)

OPEN PLOT CLEARANCE OPERATION

Large Number of open plots are present in Union Council 3 and as it is a cattle free area with poor infrastructure of roads and sewerage, access of machinery is not possible in every area of Union Council which results into daily throwing of waste in open plots by house holds.



chatha park glorious (1).jpg



chatha park glorious (2).jpg



chatha park glorious (5).jpg



chatha park glorious (6).jpg



chatha park glorious (3).jpg



chatha park glorious (4).jpg



chatha park glorious (7).jpg



chatha park glorious (8).jpg



chatha park glorious (9).jpg



chatha park glorious (10).jpg



chatha park glorious (13).jpg



chatha park glorious (14).jpg



chatha park glorious (11).jpg



chatha park glorious (12).jpg



chatha park glorious (15).jpg



chatha park glorious (16).jpg



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chatha park glorious (18).jpg



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chatha park glorious (19).jpg



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chatha park glorious (26).jpg



chatha park glorious (27).jpg

WORKING PLAN FOR MANUAL CLEARANCE OF OPEN PLOTS

Manual Clearance of Open plots is conducted after 11am Daily in Group Working and daily 3-4 plots are cleared in Union Council 3.

UNION COUNCIL 3	
Day	Open Plots Plan
Monday	Chatha Park park(2 plots)
Tuesday	Glorious(2 plots)
Wednesday	Bachay wala plot + DVR(2 plots)
Thursday	Doctor Farooq(1 plot) + Murgi wala(1 plot)
Friday	Qabrastan wala point(1 plot) + Tab wala point(1 plot)
Saturday	Bagh wala Dairy(1 plot)



EMPTY AREAS MANUAL SWEEPING PROTOCOL

Large Population of shadra expanded over vast area of land. That's why we have many empty areas where we have no sanitary worker to provide regular waste collection and sweeping services. So we cover these empty areas in group working after 11am according to fix schedule.

EMPTY AREAS UC-3

UNION COUNCIL 3
<u>Gawala Colony</u>
<u>Lateef Chowk</u>
<u>Chatha Park</u>
<u>Glorious</u>
<u>Itfaq Colony Lajpat Road</u>

GROUP WORKING PLAN UC-3

Union Council-3	
Day	Areas to Cover
Monday	Gowalar Colony
Tuesday	Chatta park Glorious School +bacha Wala Plot
Wednesday	Rasool nagar
Thursday	Itefaq Colony
Friday	Aziz Coolony Imam Bargah
Saturday	Chatta park

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION & DOOR TO DOOR COLLECTION)

Solid waste collection process is done through two ways.

1. Container Collection
2. Door to Door Collection

CONTAINER COLLECTION

Solid waste generated is stored in waste containers(Collection Capacity is 250kg/0.25 tons) 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. This waste is than dumped at dumping Site (Mehmood Booti).

- ✓ Total 33 waste containers are in place in Union Council at 25 different Points.
- ✓ Total waste storage capacity in 33 containers is 8.25 tons in one time lifting.
- ✓ These Waste Containers are lifted by Hydraulic Compactor Vehicles having a Compaction Ratio of 1:3.
- ✓ One small Compactor is deployed for waste collection in Union Council 3. 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 linked streets to maintain efficient cleanliness standards.



Compactor Hydraulic System



Compactor



Proper Uniform with PPE's



Broom



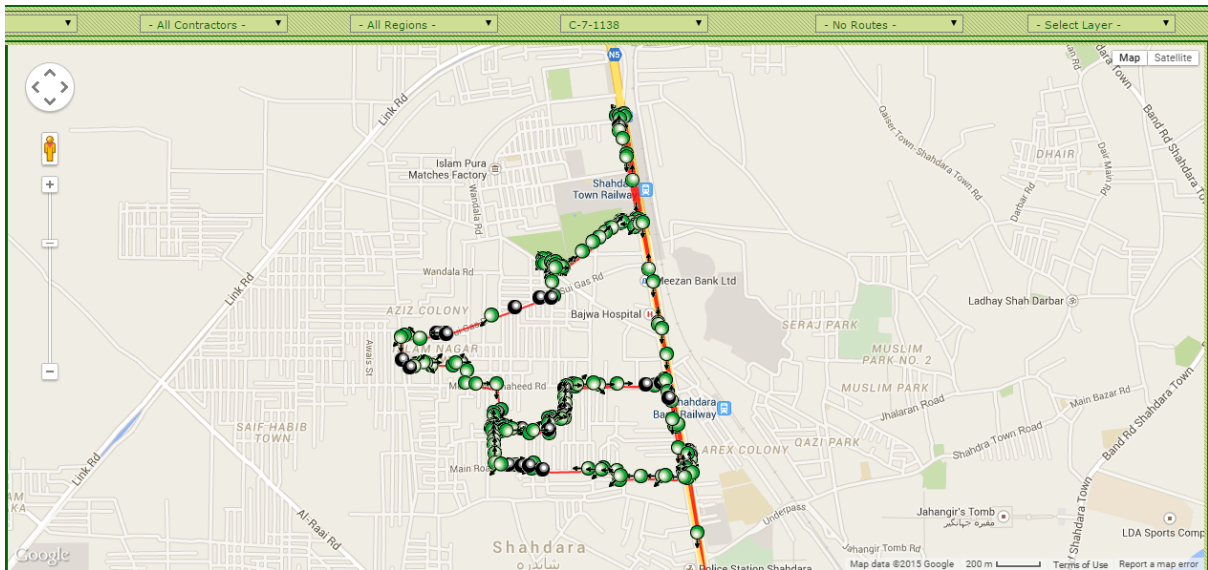
Shovel 1

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

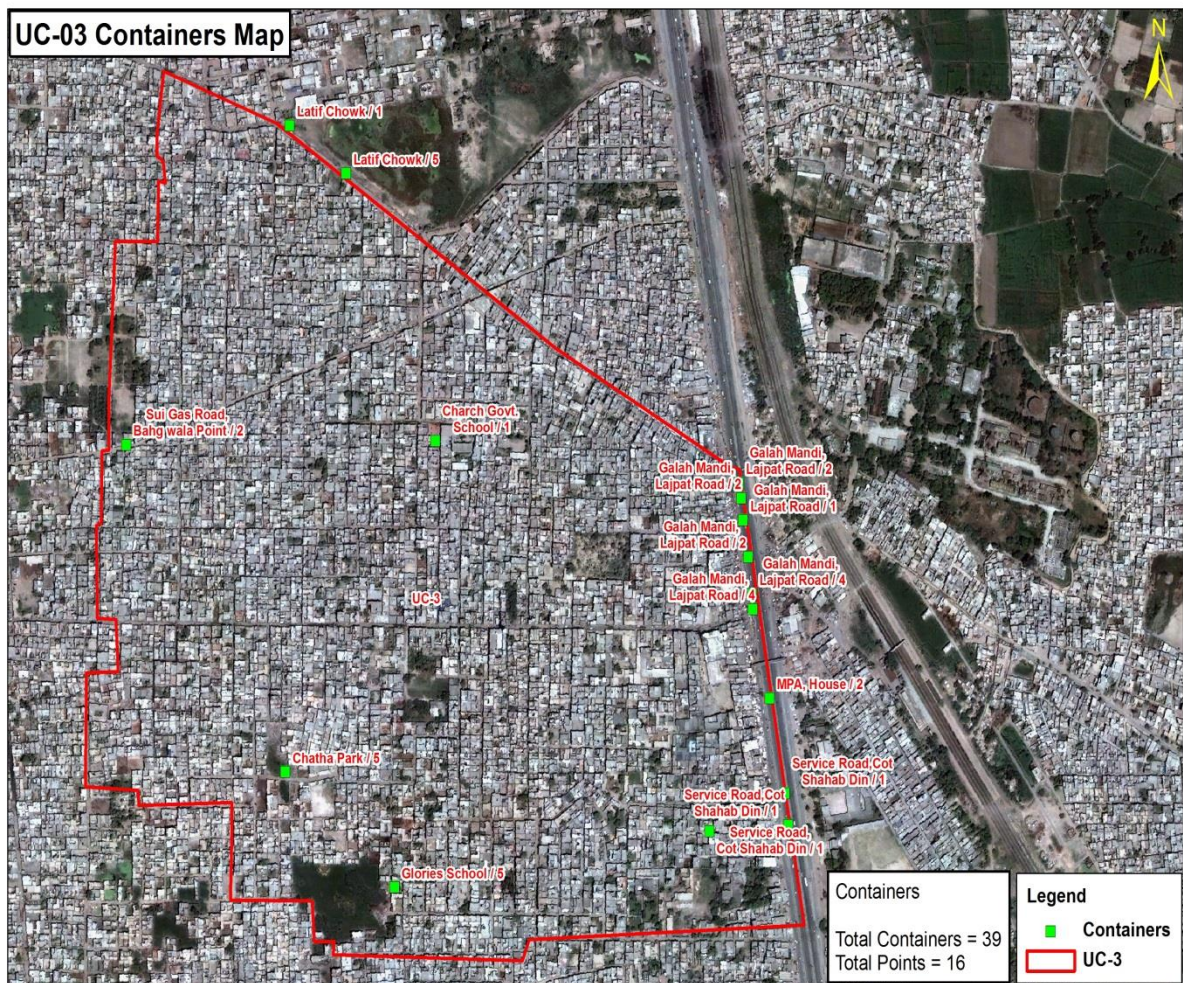
SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION) DETAILS

- Containers Placed: 33
- Container Points: 28
- Compactor Vehicles: C07-1138 (7m³ Compactors)
- Compactors Waste Collection: 7m³ Compactor can carry 4-5 tons of waste with three trips in 1st shift so the Collection Capacity in 1st Shift is 12 tons.

COMPACTOR WORKING 1st Shift



CONTAINER LOCATIONS ON MAP UC 03



Map: 01. Location of Containers

DOOR TO DOOR COLLECTION

- ✓ Door to Door Waste Collection is the backbone of Solid Waste Management Operation. But it is very difficult to implement Door to Door Waste Collection service in area like Shadraa with low income rate, low literacy rate, Poor roads and sewerage infrastructure. But still we have successfully implemented Door to Door Service in Union Council 3(Areas having access and infrastructure for Door to Door Collection)
- ✓ MD-53 is the code of mini dumper which is deployed for UC-03 working with OZPAK JINGLE collecting Door to Door waste. Door to Door Waste Collection time is from 08:00AM to 01:00PM.

Note: Door to Door Waste Collection service is provided to houses having access of Mini Dumper. Our sanitary workers are collecting waste from areas where infrastructure is poor with narrow streets and sewerage problems.



Mini Dumper Hydraulic System



Mini Dumper



Proper Uniform with PPE's



Broom



Shovel 1



Waste Bag



DOOR TO DOOR COLLECTION DETAILS

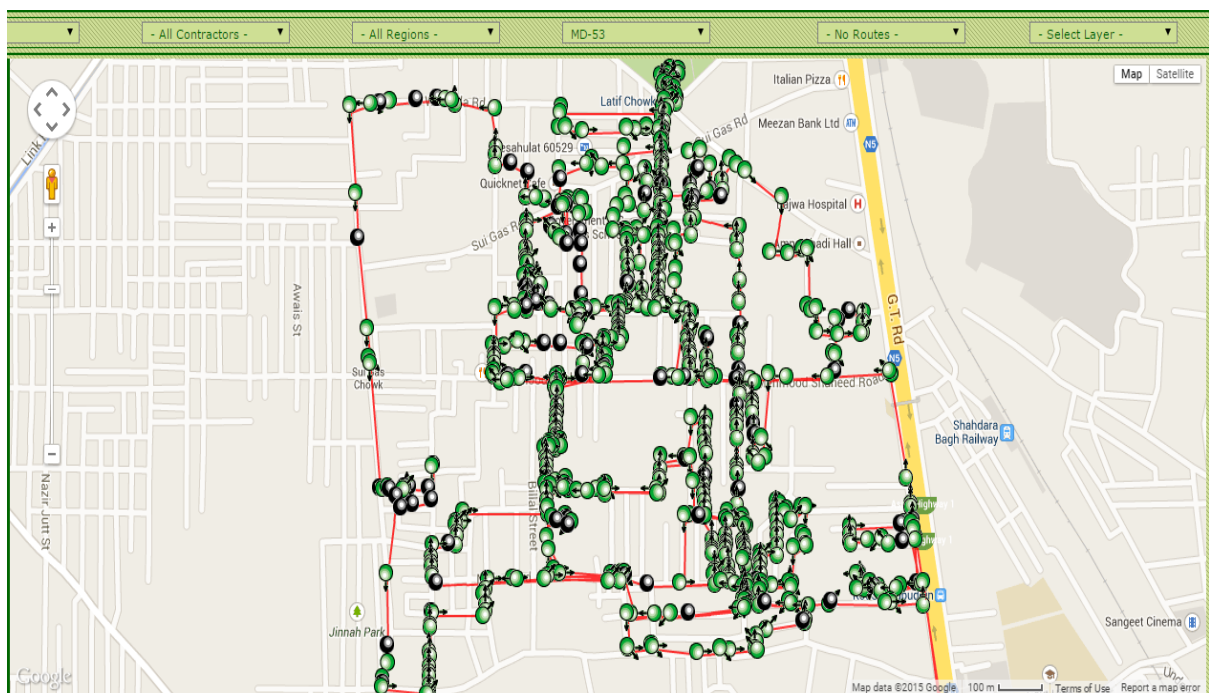


Mini Dumper: MD-53

Mini Dumper Driver: Muhammad Ashiq(3244238940) with 1 Helper (Properly Equipped)

DOOR TO DOOR WORKING OF MINI DUMPER IN UNION COUNCIL 3

Narrow Streets of this Union Council. Access of Mini Dumper is not possible to all streets that is the reason mini dumper moves on relatively wide streets in this uc from where worker collects waste from inner streets.



LIFTING OF WASTE BAGS FILLED DURING GROUP WORKING

Manual Open Plot Clearance is a major part of solid waste management operation in Shadra. Due to involvement of Mini Dumper in DTD Collection. It was big problem to lift waste filled bags from narrow streets with mini dumper during 1st shift. For this purpose we are using one extra mini dumper to lift waste bags daily from plots all over the shadra zone in 2nd Shift.



2.2. OPERATIONAL ACTIVITIES - SECOND SHIFT PLAN

MANUAL SWEEPING OPERATION

Manual sweeping of the Main roads, Important markets, 1139 complaints is done with Special Gang (Group of Sanitary Workers) equipped with all necessary operational tools and PPE's (Personal protective equipment's)

- ✓ Manual sweeping in 2nd shift with Special Gang is carried out from 2PM to 10PM.
- ✓ Personal protective equipment's include Proper uniform, Gloves, Mask, Proper Shoes, Long Boots and Rain Coat in case of monsoon Season.
- ✓ Operational Requirement for Special Gang includes Broom, Shovel, Wheelie Bin, Waste Bags, and Scrapper.

MANUAL SWEEPING OPERATION DETAILS



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 Dumping Site (Mehmood Booti).

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION) DETAILS

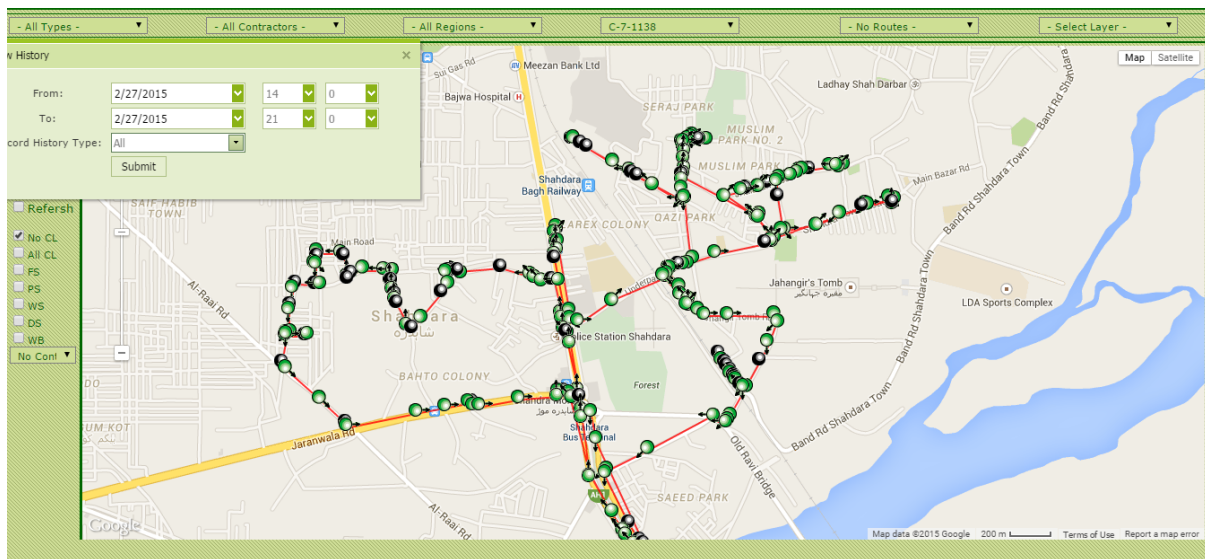


Compactor Vehicles: C07-1138 (7m³ Compactors)



Compactor Waste Collection 2nd Shift: Compactor C07-1138 Covers Main Roads and Important Markets Container Points

COMPACTOR WORKING 2nd Shift



2.3. OPERATIONAL ACTIVITIES - THIRD SHIFT PLAN

MANUAL SWEEPING OPERATION

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

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 Dumping Site (Mehmood Booti).

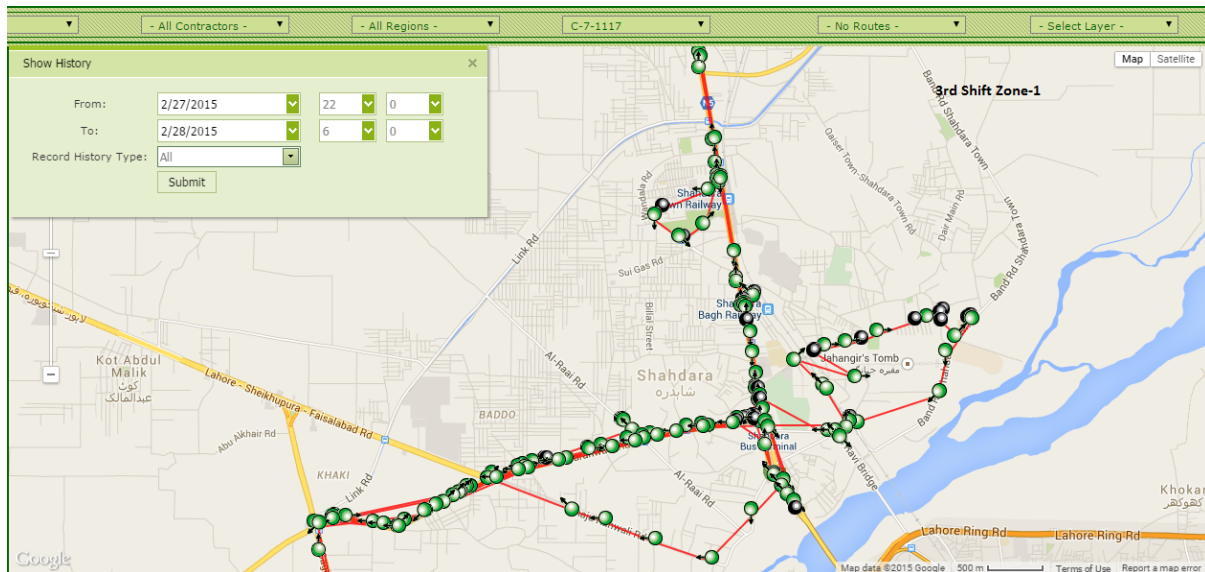


Compactor Vehicles: C07-1117 (7m³ Compactors)



Compactor Waste Collection 3rd Shift: Compactor C07-1117 Covers Main Roads and Important Markets Container Points and Problematic Points covering all Union Councils

COMPACTOR WORKING 3rd Shift



3. COMPACTOR VEHICLE STAFF DEPLOYMENT FOR UNION COUNCIL 03

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

Conservancy Staff Union Council 3, Zone-1						
Overall Incharge = Muhammad Hassan (0300-8482390)						
Supervisor = Babar (0320-8431703) & M Shahid (0346-4382320)			Supervisor = Babar (0320-8431703) & M Shahid (0346-4382320)		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
03	1138	Shoaib(3076007238)	1138	imran butt(3134454525)	1117	Ashraf Laal(3224891824)

Table: 02. Conservancy Staff UC-03

4. UC COORDINATOR JOB DESCRIPTION/LIST OF WORK

06:00AM-07:00AM

Attendance Points:

- ✚ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Kot Shahab Din
 - Wandala Road
 - Lateef Chowk

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, Filled Waste bags points and problematic overflowed containers to Compactor and Mini Dumper drivers to attend on priority.

07:00AM-08:00AM

- ✚ Check Manual Sweeping on Main Roads, Sanitary Workers Attendance and Containers Collection.
 - GT Road Service Road
 - Fruit Vegetable Market Area + 11 Containers
 - Start Distribution of waste bags to every vendor in market

08:00AM-08:30AM

- ✚ Check Manual Sweeping on Main Roads, Sanitary Workers Attendance and Containers Collection.
 - Wandala Road
 - Lateef Chowk
 - Sui Gas Road
 - Muhammadi Chowk
 - Lajpat Road + 1 Container
 - Dolat Khan Road

08:30AM-10:00AM

- ✚ Check Manual Sweeping, Worker Attendance, Container Collection, Loader Working & Door to Door Waste Collection in Inner (Residential) Areas.
 - Checking Fruit Vegetable Market special working with distribution of waste bags
 - Check Loader dumper working in Fruit Vegetable Market
 - Check container points on Lajpat and Wandala Road (Total 11 Containers)
 - Check Lateef Chowk Container Point
 - Check Sui Gas Road + 2 Containers
 - Check Glorious Area + 10 Containers
 - Check Chatta Park + 9 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.

10:00AM-10:45AM

- Break Time from 10:00am to 11:00am
- Workers gather at one Attendance Point (Kot Shahab Din Point)

10:45AM-11:30AM

- Check Service(GT) Road and Fruit Vegetable Market + Wandala Bazar

11:30AM-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
 - Check container points on Lajpat and Wandala Road (Total 11 Containers)
 - Check Lateef Chowk Container Point
 - Check Sui Gas Road + 2 Containers
 - Check Glorious Area + 10 Containers
 - Check Chatta Park + 9 Containers

01:30AM-02:00PM

- ✚ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Kot Shahab Din
 - Wandala Road
 - Lateef Chowk

5. CRUCIAL POINTS

From Solid Waste Management(Waste Generation, Waste Collection & Social Environment) perspective we have some focus points in every Union Council which are focused daily on priority.

Important Congested Bazars(Markets)

Very important markets(Public Places) that's why need to be focused daily.

Dolat Khan Bazar

Dolat Khan Bazar is an important bazar and its cleanliness is maintained.

Wandala Market

Cleanliness related issues have been resolved after proper coordination and meetings with Anjuman e Tajraan.

Lajpat Road Market

Lajpat road has residential congested linked streets and important market so its cleanliness on time is important.

Main GT Road Market

Main GT Road Market is very important from location and communal perspective. Cleanliness is maintained here with proper planning.



Glorious and Chatta Park Container Points are very Important and focused.

Note: In UC-3, we have 3 such points where more than 1 container is deployed and all are our focus points.

6. RECOMMENDATIONS

As Door to Door Collection is the back bone of waste management system and it is the best way to reduce waste load on containers and compactors by directly collecting waste from houses. To collect waste completely from UC-03 one mini dumper is not enough. One more mini dumper is necessary for 80-90 % Door to Door Collection efficiency.