

Özkartallar Campak Joint Venture

Solid Waste Management Plan for Jiya Musa (UC-02)



By

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Map of UC 02 Jiya Musa

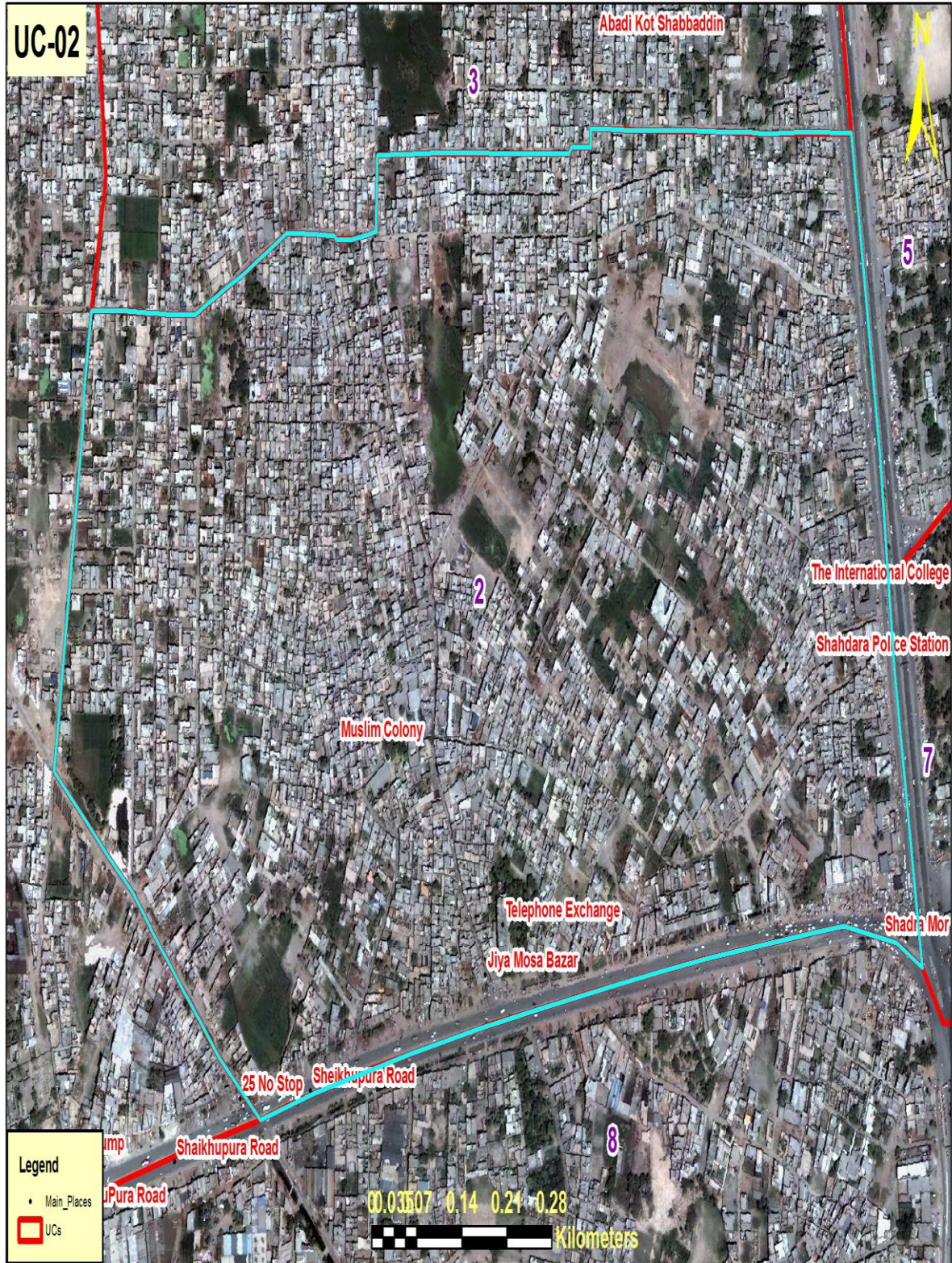


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1. INTRODUCTION

Union Council –2 (Jiya Musa) is located in Ravi Town. Total population of UC-02 is 68650 with area 1818100 m² and predominantly low income area with unplanned settlement/infrastructure.



Fig: 1. Pictorial View of Important Areas of UC-02

1.1. IMPORTANT PLACES OF UNION COUNCIL-02

From Sanitation point of view Union Council-02 has important Places like Commercial Markets, Parks, Graveyard Important Roads, and Mosques etc.

Commercial Markets

- Jia Moosa Main bazaar
- Yousaf park Main bazaar

Graveyards

- Muslim colony

Important Roads

- Saggian Road
- Sharakpur Road

Mosques

- Jamiya Masjid Bilal (Rana chowk mian judge wali kothi shahdra)
- Jamiya Masjid Baitul-Rehman(Muslim colony shahdra)
- Jamiya Masjid Gulzar Almadrissa(Berri wala chowk shahdra)
- Jamiya Masjid Gulzar alhabib(Abdullah block Yousaf park shahdra)
- Jamiya Masjid Hazrat Umer Farooq (Jalal park shahdra)
- Jamiya Masjid Sardar alqunain (Main bazar Yousaf park shahdra)
- Jamiya Masjid Mehmoodia (Jiya Moosa shahadra)
- Jamiya Masjid Qaim alsalam(Jithol street kot shabuddin shahdra)
- Markzi jamiya masjid Noori (kot shahabuddin main road)

1.2. SOLID WASTE GENERATION

Estimated solid waste generation is 41.19 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



Scrapper



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 Sheikhpura Vendors

MANUAL SWEEPING OPERATION DETAILS

- Sanitary Workers Strength: 37
- Sanitary Supervisors: 2
- Wheelie Bins: 15
- Hand Carts: 31
- Waste Bags: 10 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 2 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.



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2015-02-28 08.33.51.jpg



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2015-02-28 09.03.14 jinah road (2).jpg



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2015-02-28 09.01.10 jinah road (3).jpg



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2015-02-28 09.55.47 botta park.jpg



2015-02-28 11.53.23 Boota park.jpg



2015-03-02 08.36.32 Allah bakhsh park.jpg



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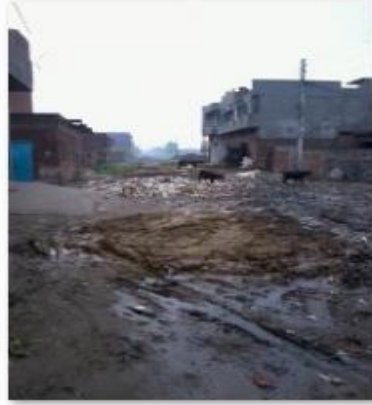
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ghulshan hayat PARK (4).jpg



ghulshan hayat PARK (5).jpg



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GHULASHAN HAYAT PARK.jpg



ghulshan hayat PARK (6).jpg



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jinah road (2).jpg



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muhalla kemboh fasion house (6).jpg



raja colony (1).jpg



raja colony (2).jpg



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park st .jpg



raja colony (3).jpg



raja colony (4).jpg



raja colony (5).jpg



raja colony (6).jpg



rana chowk near bilal masjid (2).jpg



rana chowk near bilal masjid (3).jpg



raja colony (7).jpg



rana chowk near bilal masjid (1).jpg



rana chowk near bilal masjid (4).jpg



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sadiq park st no 52015-03-02 08.41.43.jpg



sue gas road jalal park...2015-03-02 08.45.19.jpg



yusaf park st no 13...2015-03-02 08.57.15.jpg



yusaf park st no7,,82015-03-02 08.54.27.jpg



sue gas road smart school...2015-03-02 08.42.39.jpg



sui gas raod jalal park.....2015-03-02 08.46.1



yusaf park..2015-03-02 08.58.08.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 2.

UNION COUNCIL 2	
Day	Open Plots Plan
Monday	Yousaf Park street no 10 plots and attached open plot(total 3 plots)
Tuesday	Gulshan Hayat Park allied school plots(3 plots)
Wednesday	Inayat Park near nori masjid plots(3 plots)
Thursday	Wing wala plot kot shahab din main bazar + fashion house main bazar (total 3 plots)
Friday	Main judge wali kothi open plots(3 plots)
Saturday	Gulshan Hayat Park allied school backside plots(3 plots)
Monday	Sui gas road near smart school(3 plots)
Tuesday	Sui gas road near battery wala chowk(2 plots)
Wednesday	Tuff tile basheer colony near abdullah block government school(3 plots)
Thursday	Mehmood Road street no 5 and 6(3 plots)



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-2

UNION COUNCIL 2
<u>Gulshan Hayat Park Streets</u>
<u>Mian judge wali kothi streets</u>
<u>Butt chowk to qabrastan Road streets</u>
<u>Main bazar Arfaat park streets</u>
<u>Allah Baksh park streets</u>
<u>Hamd ali park streets</u>
<u>Jilal park street no 6 to 12</u>
<u>Abdullah park streets</u>
<u>Kashmeer park streets</u>
<u>Street no 5-10 Yousaf park North Streets</u>
<u>Saif habib town</u>
<u>Boota park no 1</u>
<u>82 foot road 25 no - juma bazar</u>
<u>Sui Gas Road Barian wala Chowk</u>
<u>Sui Gas Road Muhammad Ali Park</u>

GROUP WORKING PLAN UC-2

Union Council-2	
Day	Areas to Cover
Monday	Sui Gas Road Jilal Park + M Ali Park
Tuesday	Saif Habib Town + Boota Park
Wednesday	82 Foot Road 25 No + Gulshan Hiyat Park
Thursday	Main Jajh House near Bilal Masjid + Abdullah Park
Friday	kashmeer Park + Sui Gas Road Bairian Wala Chowk
Saturday	Arfaat Park + Allah Baksh Park + Street no 5 to 10 Yousaf 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 52 waste containers are in place in Union Council at 28 different Points.
- ✓ Total waste storage capacity in 52 containers is 13 tons in one time lifting.
- ✓ These Waste Containers are lifted by Hydraulic Compactor Vehicles having a Compaction Ratio of 1:3.
- ✓ One Large Compactor is deployed for waste collection in Union Council 2. 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



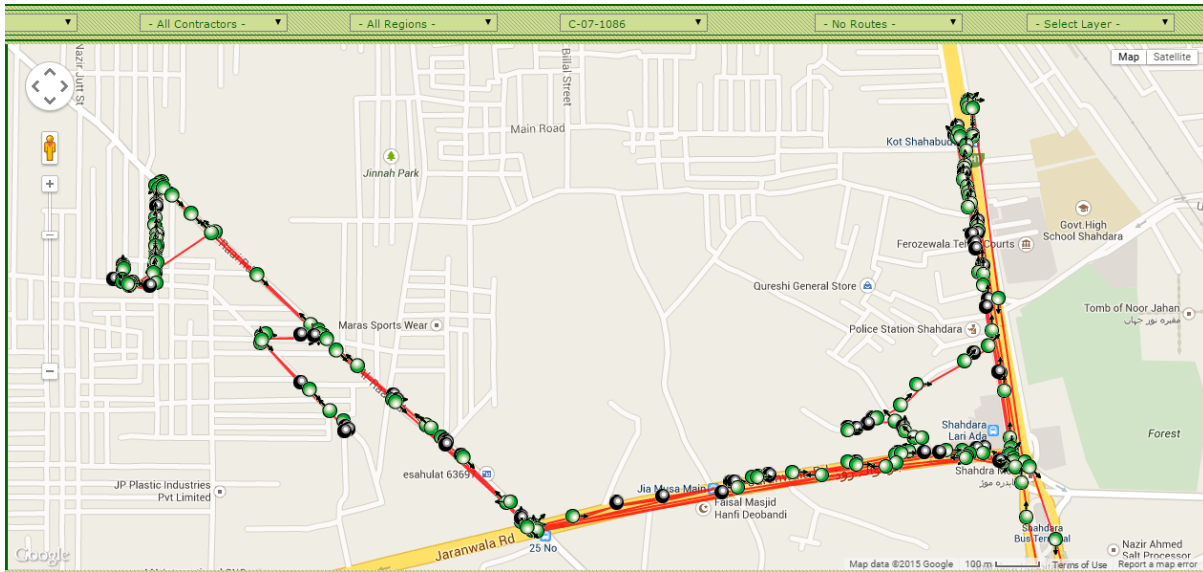
Shovel 1

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

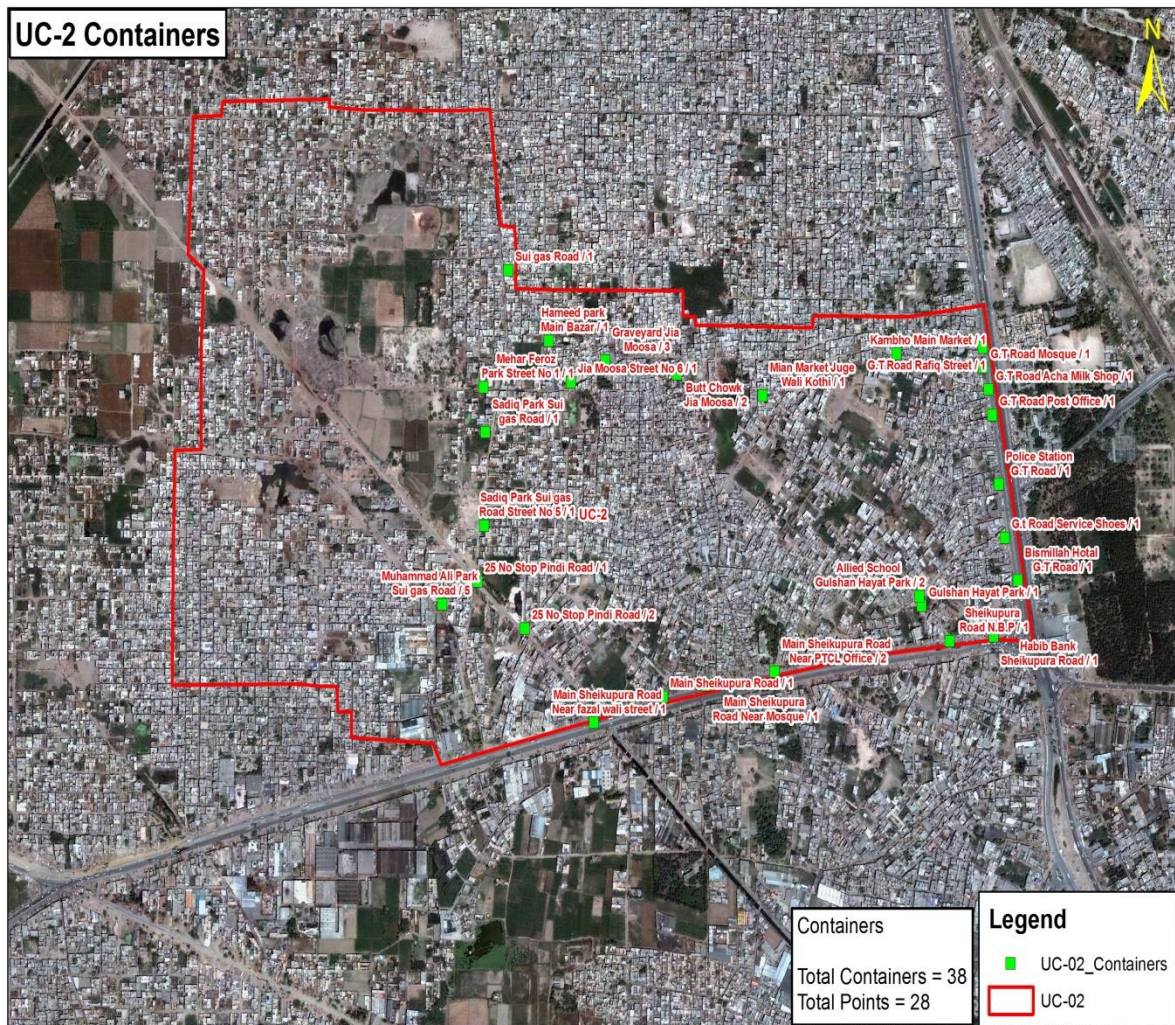
SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION) DETAILS

- Containers Placed: 52
- Container Points: 28
- Compactor Vehicles: C13-1086 (13m³ Compactors)
- Compactors Waste Collection: 13m³ Compactor can carry 9-12 tons of waste with single trip in 1st shift so the Collection Capacity in 1st Shift is 12 tons.

COMPACTOR WORKING IN UNION COUNCIL 2



CONTAINER LOCATIONS ON MAP UC 02



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 1(Areas having access and infrastructure for Door to Door Collection)
- ✓ MD-52 is the code of mini dumper which is deployed for UC-02 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

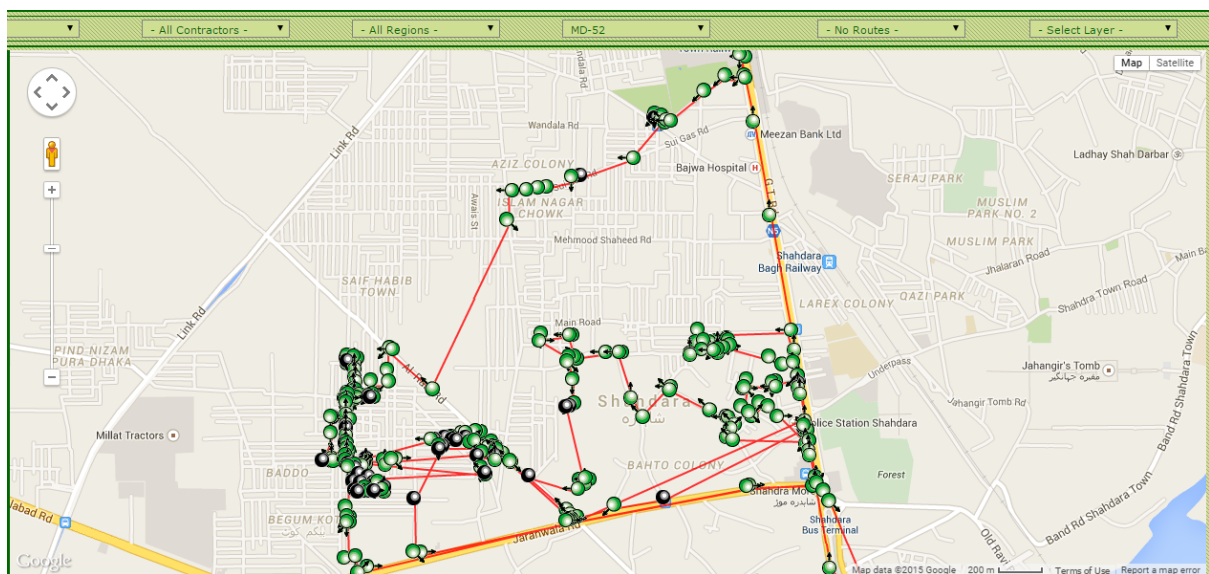


Mini Dumper: MD-52

Mini Dumper Driver: Tayab Tahir (3124025932) with 1 Helper (Properly Equipped)

DOOR TO DOOR WORKING OF MINI DUMPER IN UNION COUNCIL 2

Very 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.

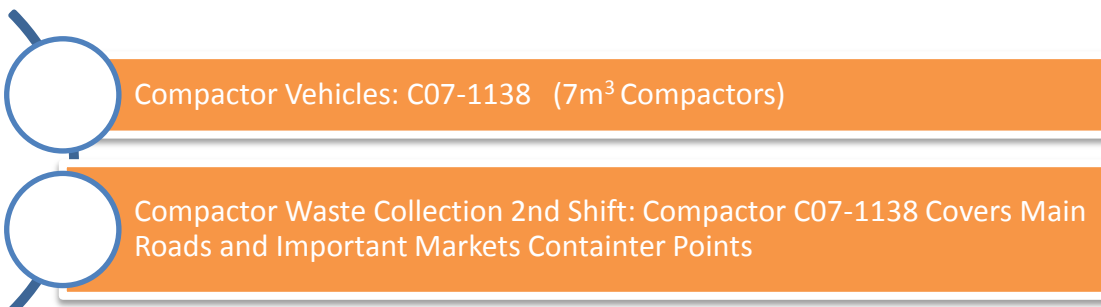
MANUAL SWEEPING OPERATION DETAILS



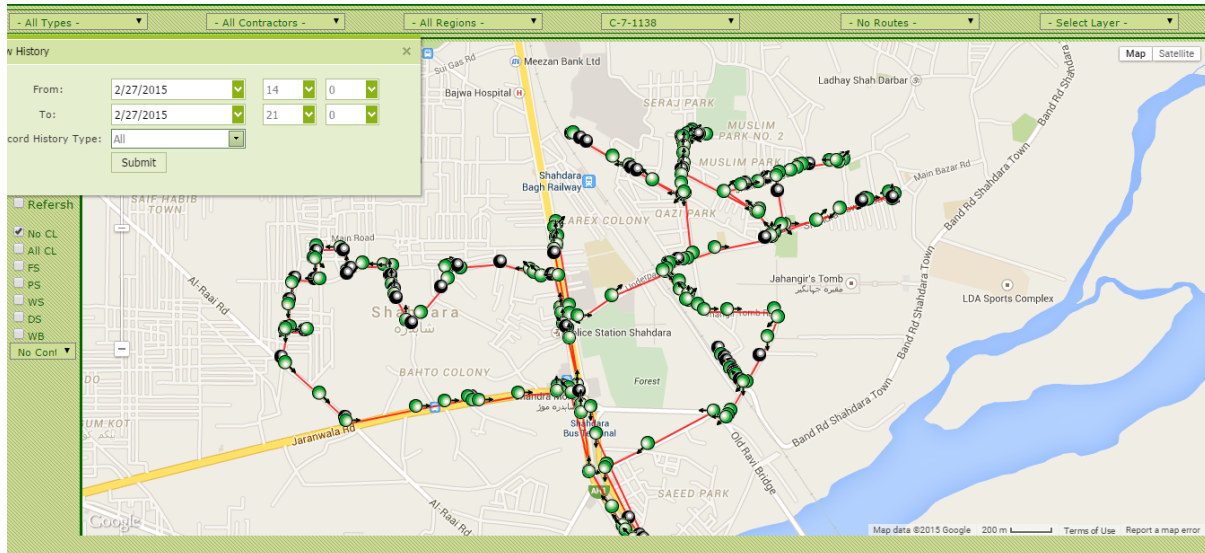
SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION)

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 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)

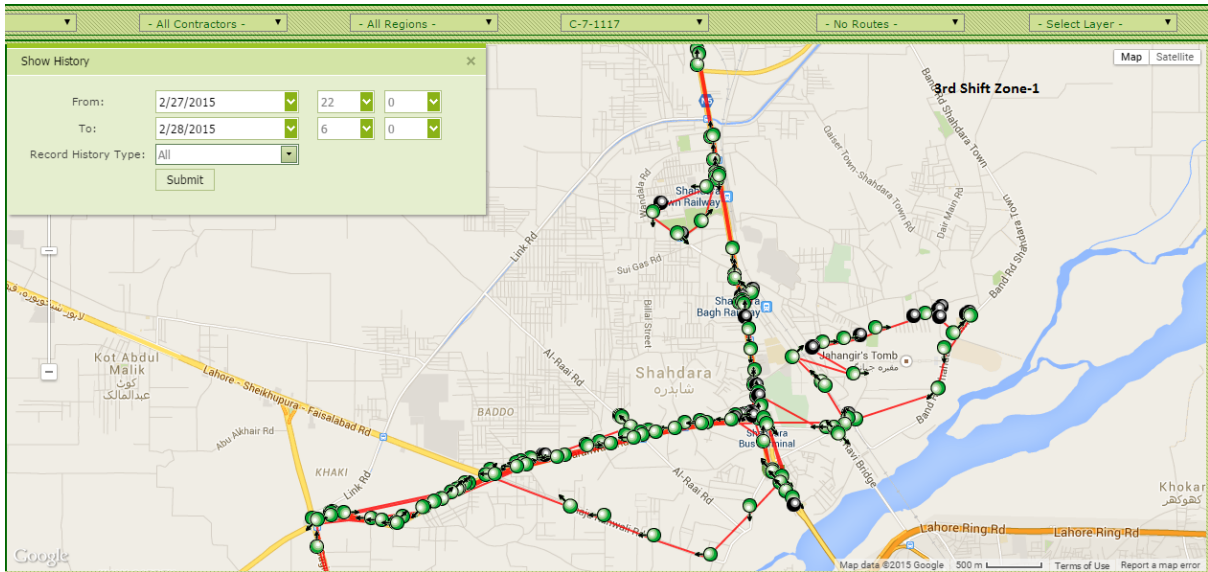
Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the purpose of waste collection and dump the waste at Dumping Site (Mehmood Booti).

- 

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 02

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

Conservancy Staff Union Council 2, 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
02	1086	Ishaq Attari(3008032226)	1138	imran butt(3134454525)	1117	Ashraf Laal(3224891824)

Table: 02. Conservancy Staff UC-02

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
 - Police Station
 - Jiya Musa
 - 25 No Stop
 - 82 ft Road

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 over flowed containers to Compactor and Mini Dumper drivers to attend on priority.

07:00AM-08:30AM

- ✚ Check Manual Sweeping on Main Roads, Sanitary Workers Attendance and Containers Collection.
 - Jiya Musa Bazar Main Road
 - Sheikhpura Road (25 No Stop to Shadra Chowk) + 9 Containers
 - Service Road GT Road (Shadra Chowk to Kot Shahab Din) + 9 Containers

08:30AM-09:00AM

- Distribute Waste Bags to Vendors on GT Road and Sheikhpura road.

09:00AM-10:00AM

- ✚ Check Manual Sweeping, Worker Attendance, Container Collection & Door to Door Waste Collection in Inner (Residential) Areas.

1st Day

- Jiya Musa Bazar and Linked Residential Areas
- Kot Shahab Din Bazar and Linked Residential Areas
- Butt Chowk Bazar and linked Residential Areas + 2 Containers
- Main Bazar Muslim Colony and Residential Area of Muslim Colony + 4 Containers

2nd Day

- Mehmood Road Streets
- Yousaf Park Streets
- Ilm Deen Streets

- ✚ 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 (Jiya Musa Point).

11:00AM-01:30PM

- ✚ Divide work force in groups to cover empty areas, absent worker area, problematic areas 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
 - Jiya Musa Bazar Main Road
 - Sheikhpura Road (25 No Stop to Shadra Chowk) + 9 Containers
 - Service Road GT Road (Shadra Chowk to Kot Shahab Din) + 9 Containers
 - Muhammad Ali Park & Basheer Colony Containers (9 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
 - Police Station
 - Jiya Musa
 - 25 No Stop
 - 82 ft Road

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.

Jiya Musa Bazar is our Foucs point in UC-2.

Note: In UC-2, 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-02 one mini dumper is not enough. One more mini dumper is necessary for 80-90 % Door to Door Collection efficiency.