

**Özkartallar Campak Joint Venture**

## **Solid Waste Management for Bila Gunj (UC-71)**



**5<sup>th</sup> Floor Shaheen Complex, Egerton Road, Lahore**

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# Map of UC 71 Bilal Gunj



## 1. Introduction

Union Council – 71 (Bilal Gunj) is located in Data Gunj Baksh Town. Total area of the UC is 1296560 m<sup>2</sup> with population of 72590<sup>1</sup>. This area is predominantly middle income area with planned settlement.



*Fig: 1. Pictorial View of Important Areas of UC-71*

### 1.1 Important Places of Union Council-71

From Sanitation point of view Union Council-71 has important Places like Commercial Markets, Parks, Graveyard Important Roads, and Mosques etc.

#### **Commercial Markets**

- Kabari market
- Peer Makki Main Bazar

#### **Graveyards**

- Gora Graveyard

#### **Important Roads**

- Kacha Sanda Road, Outfall Road, Lower Mall Road

#### **Mosques**

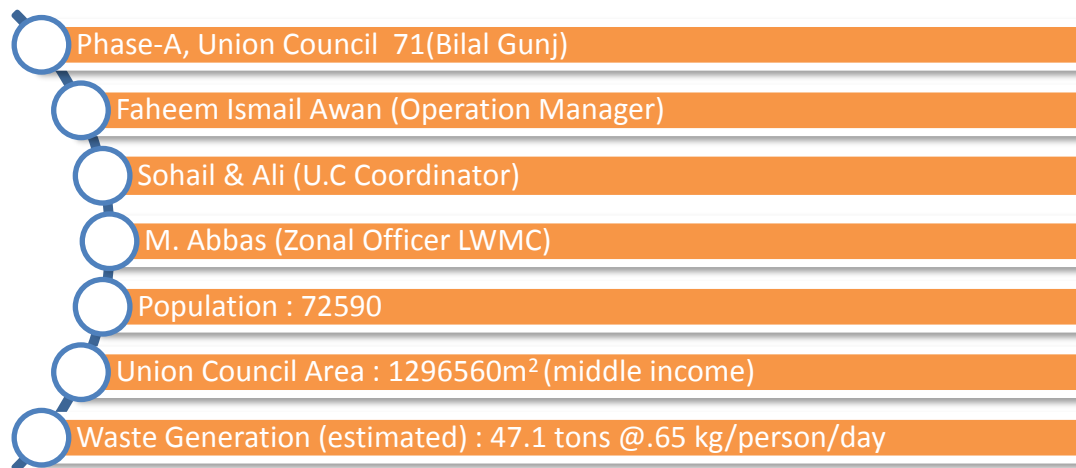
- Ali Mosque
- Lal Mosque
- Abu Bakar Mosque
- Barkat Bibi Mosque

### 1.2 Solid Waste Generation

Estimated solid waste generation is 47.1 metric tons per day @ waste generation rate of 0.65 kg/person/day.

<sup>1</sup> 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)

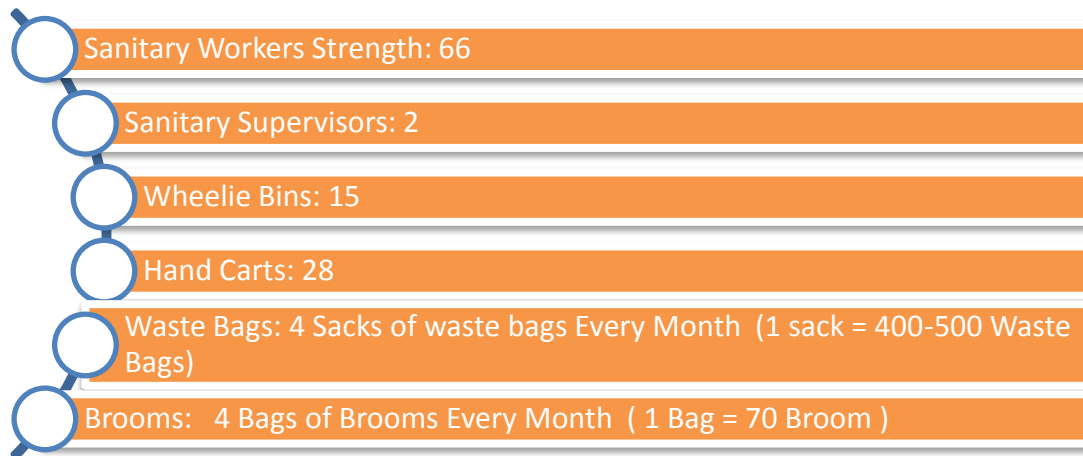
- ✓ Manual sweeping in first shift is carried out from 6AM to 2PM.
- ✓ Personal protective equipment's include Proper uniform, Gloves, Mask, Proper Shoes, Long Boots and Rain Coat in case of monsoon Season.
- ✓ Operational Requirement for Sanitary Worker includes Broom, Shovel, Wheelie Bin, Waste Bags,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



**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 1<sup>st</sup> 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 purpose of waste collection and dump the waste at dumping Site (Mehmood Booti).

- ✓ Total 55 waste containers are in place in Union Council at 35 different Points.
- ✓ Total waste storage capacity in 55 containers is 14 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



Broom



Shovel 1



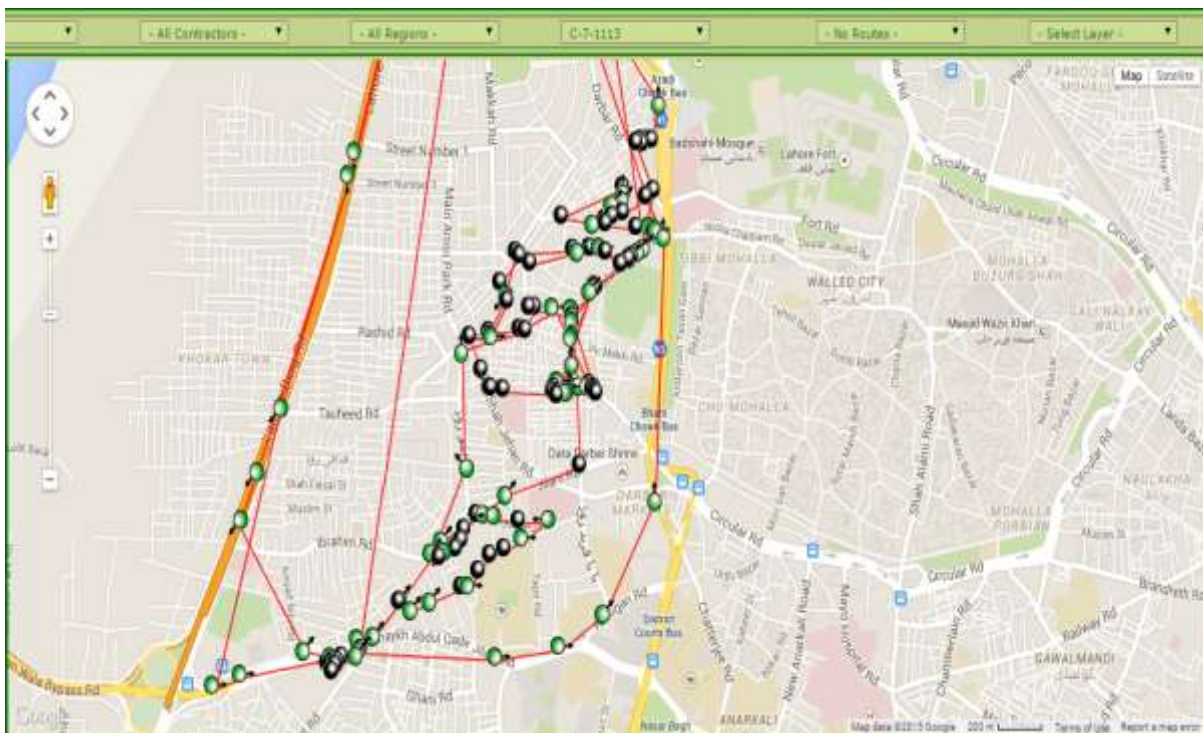
Waste Bag

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

### Solid Waste Collection Operation (Container Collection) Details

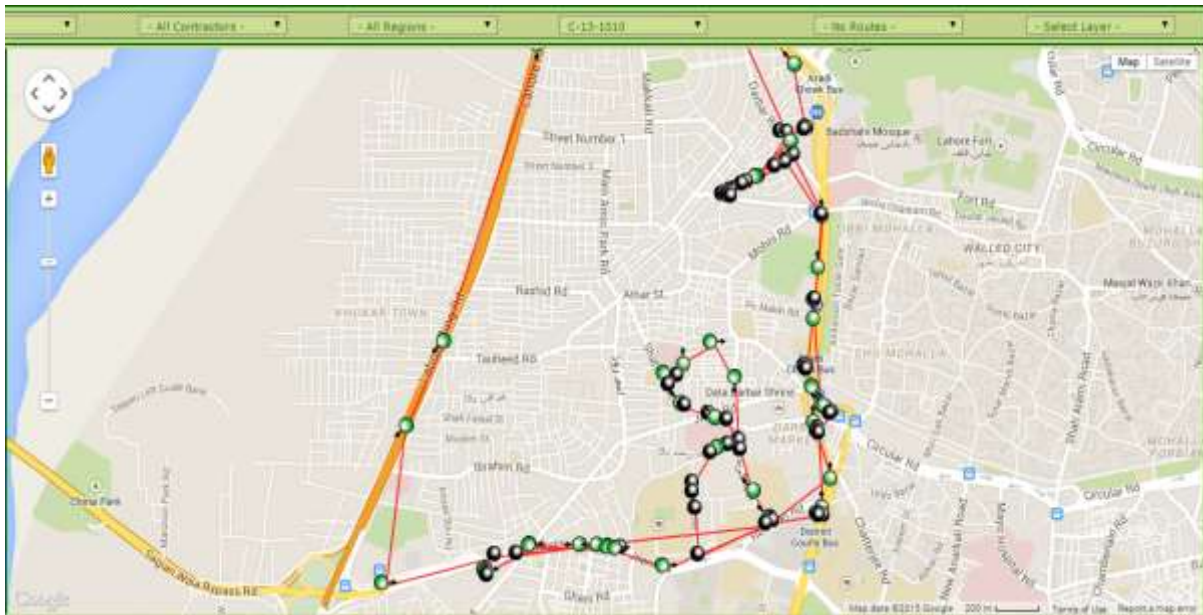
- Containers Placed: 88
- Container Points: 58
- Compactor Vehicles: C07-1113 & C07-1010 ( C13 is 13m<sup>3</sup> Compactor)
- Compactors Waste Collection: 7m<sup>3</sup> Compactor can carry 4-5 tons of waste in single trip and 7m<sup>3</sup> Compactor make two trips in 1st Shift and 13m<sup>3</sup> Compactor make one trip of of 8-10 tons so the Collection Capacity in 1st Shift is 20 tons by 2 compactors

### 3.2 C-07-1113 Compactor Vehicle Route:

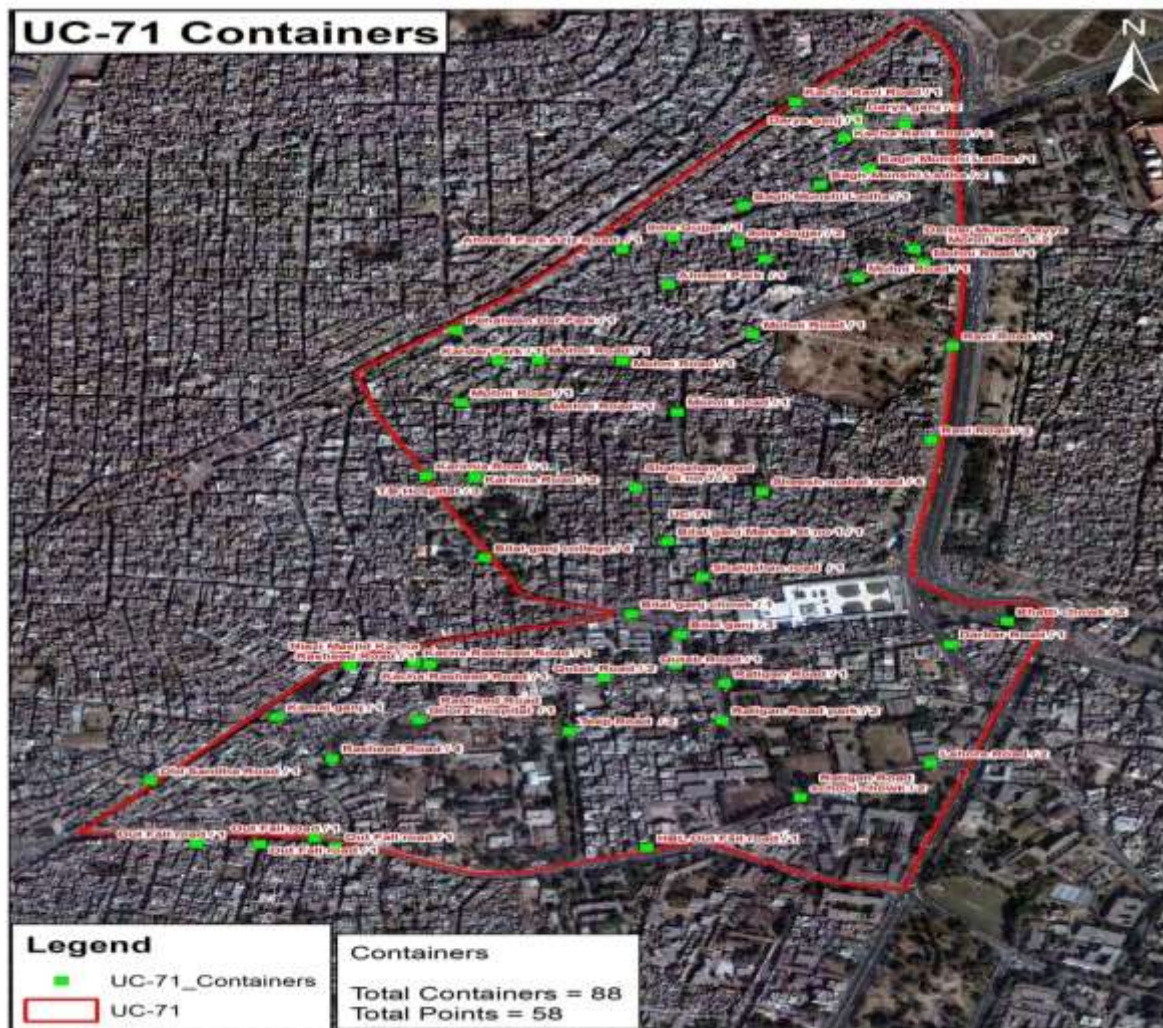




### 3.3 C-13-1010 Compactor Vehicle Route:



### 3.4 Container locations on Map UC 71



Map 01. Location of Containers

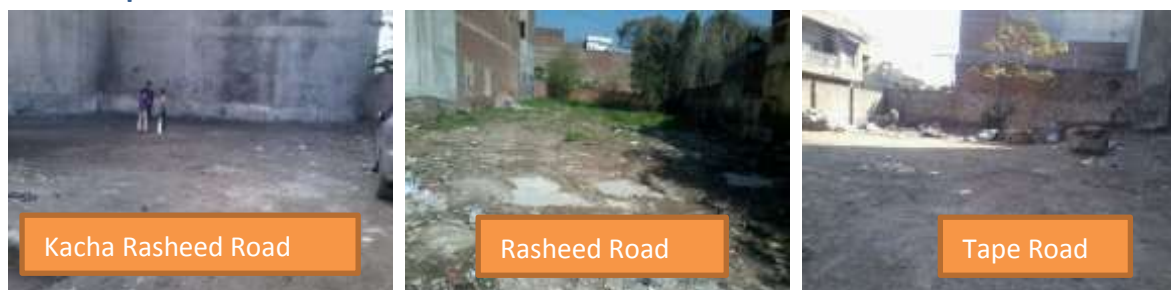
### 3.4 Weekly Working Plan After 11:00 pm(Areas):

Union Council-71	
Day	Areas to Cover
Monday	Aryian Building Road + outfall Road
Tuesday	Mohni Road + Ratting Road
Wednesday	Taxsali Road + Derra Bilal+ Data Darbar
Thursday	Shesh Mahal Road + Lahore Road
Friday	Shahjahan Road
Saturday	Bagh Munshi Ladha + Salamat Street

### 3.5 Weekly Working Plan After 11:00 pm(Open Plots):

Union Council-71	
Day	Open Plot Areas
Tuesday	Plot street no 7, Mohni Road + Plot no 2 Kacha Rasheed Road
Wednesday	Plot no 3 Kacha Rasheed Road
Thursday	Bagh Munshi Ladha Plot
Saturday	Ahmad Park Jamshed Street + Plot No 1 Kacha Rasheed Road

### 3.6 Open Plots Pictorial View



## 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 purpose of waste collection and dump the waste at temporary waste disposal station outfall road.

## Solid Waste Collection Operation (Container Collection) Details



Compactor Vehicles: C07-1120 ( 7m<sup>3</sup> Compactors)



Compactor Waste Collection 2nd Shift: Compactor C07-1120 Covers Main Roads and Important Markets Container Points covering Union Councils 70 and 71.

## 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 temporary waste disposal station Outfall workshop.



Compactor Vehicles: C13-1016 ( 13m<sup>3</sup> Compactors)



Compactor Waste Collection 3rd Shift: Compactor C13-1016 Covers Main Roads and Important Markets Container 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 71

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

Conservancy Staff Zone-15		
Overall Incharge = Faheem Ismail Awan (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
71	1113	Qurban (03217527605)	1120	M. Maqbool (0321-6094887)	1016	Navid Nazir (0333-4556377)
	1010	Qari Ehsan (03246624214)				

*Table: 02. Conservancy Staff UC-71*

## 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 Collection Details

MD-24 is the code of mini dumper which is deployed for UC-71 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 Ahmed Park(Galli No.12,Galli No 13, Jinah street), Chagian Yarian, Itahad Colony Maan, Arayien Building Chock, Mohni Road(Galli No. 2,3,4,5,6,7), Aehata No.52, Salim Phelwan wali Galli(Galli No.1,2,6,7,11), Haider Building(Galli No.7,11-20), Bilal Yasin Wali Gallian, Shahjahan Road(Galli No.2-6), Hajveri Mohalla(Galli No.2-7), Seesh Mahal Road, Takia Shadey Shan(Galli No.2,3,6,9), Main Bazar Peer Maki, Galli No.6,7,8,9,2), Salamat Mohalla(Galli No.6,7,8,11), Karicha Road(Galli No.11,12), Maila Ram Road, Galian

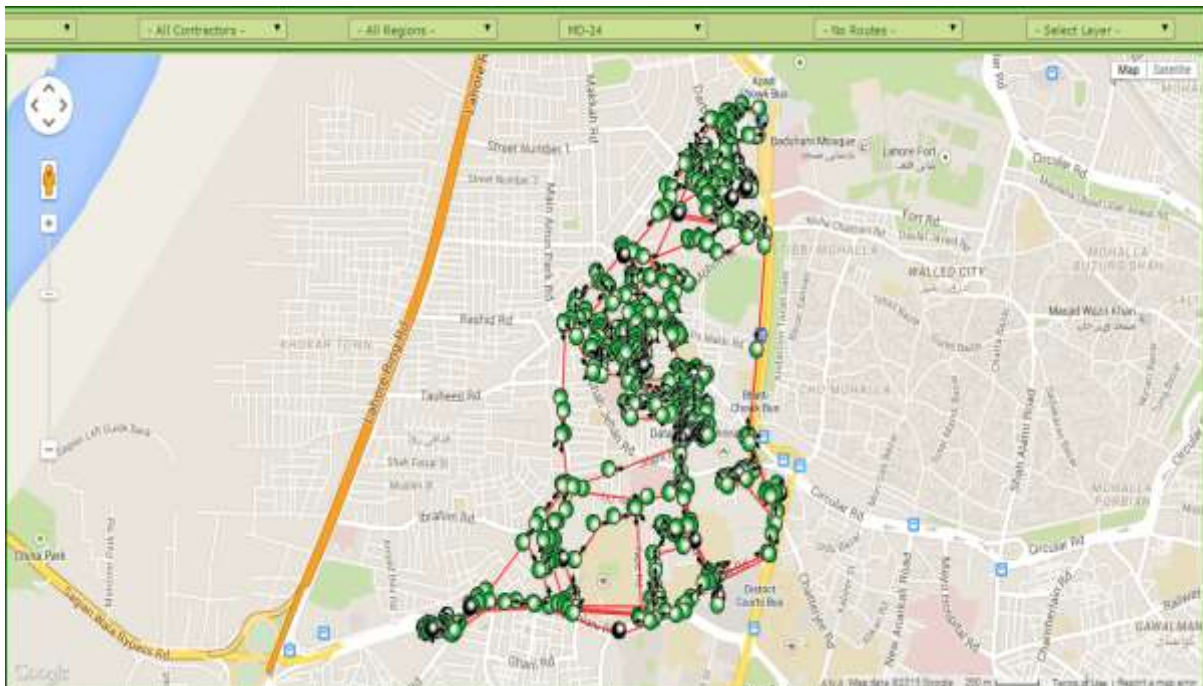
Malaq Shah, Sheikh Hindi Street(Galli No.1,2,3), Haji Mango Jucie wala(Galli No.2,3), Qutab Road Darbar, Hospital, Sardar Chapal Chock(Galli No.2,3) Etc. In the narrow streets where mini dumper is unable to enter then it is helper duty to go inside and collect waste in shoppers from every house of the streets and finally dumped in the mini dumper.



Mini Dumper: MD-24

Mini Dumper Driver: Shafique Ahmed with 1 Helper (Properly Equipped)

#### 7.4 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**

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### **Attendance Points:**

- ❖ Manual and Android Cards Attendance Marking on these fixed attendance points
  - Ebay pull
  - Dera bilal yaseen
  - Ariyan Buliling
  - Shah Jahan 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 and problematic over flowed containers to Compactor and Mini Dumper drivers to attend on priority

**07:00AM-08:00AM**

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- Sheesh mahal Road + 1 Container
- Moni Road + 1 Container
- Dera bilal Yaseen + 2 Containers
- Kacha Ravi Road + 1 Container
- Kalay ki puli + 1 Container
- Bagh Munshi Lada Main + 4 Containers
- Ahmad Park + 1 Containers
- Kareemia Road +3 Containers
- Ariyan Buliding Road + 2 Containers
- Wegan Stand Open Heap

### ***09:00AM-10:00AM***

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- ❖ Check Manual Sweeping, Worker Attendance, Container Collection & Door to Door Waste Collection in Inner (Residential) Areas like
  - Bagh Munshi Ladah link streets + 3 Containers
  - Moni Road + 4 Containers
  - Ariyan Building Link 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-11:00AM***

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- Break Time from 10:00am to 11:00am

### ***11:00AM-02:00PM***

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- ❖ 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.
  - Dera Bilal Yasin
  - Peer Makki bazar
  - Yasin House Link Streets
  - Sheesh mahal Road + 1 Container
  - Moni Road + 1 Container
  - Dera bilal Yaseen + 2 Containers
  - Kacha Ravi Road + 1 Container
  - Kalay ki puli + 1 Container
  - Bagh Munshi Lada Main + 4 Containers
  - Ahmad Park + 1 Containers
  - Kareemia Road +3 Containers
  - Ariyan Buliding Road + 2 Containers
- ❖ In Final Round Checking focus is to check Group Working, Main Roads Sweeping and Container Collection of important Points.

### ***01:30AM-02:00PM***

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- ❖ Manual and Android Cards Attendance Marking on these fixed attendance points
  - Ebay pull
  - Dera bilal yaseen

- Ariyan Buliling
- Shah Jahan road

## **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-70 is an important Union Council as it covers many important Places of Zone 15 like Outfall Road, Traffic Police Office, DCO Office, Data Darbar, Peer Makki Main Market, Main Ravi Road and Lower Mall Road. Due to these important roads and places this Union Council must be checked properly to maintain good quality Standards at these Important Areas.