

# HIGHWAY MAINTENANCE WINTER SERVICE OPERATIONAL PLAN

2017 - 2018

A Guide to Highway Policies  
and Procedures



City of  
**BRADFORD**  
METROPOLITAN DISTRICT COUNCIL

## Acknowledgements

The author of this document would like to thank the following people for their contributions in compiling this document.

**David Mazurke:** Author

**Alan Birtle:** Map production

**Julie Holt:** Administrator

**Ben Cordingley:** Online mapping application

**Steve James:** Automated telephony and mapping

**Hassan Ditta:** Automated telephony

**Colin Greenwood:** Route compliance

**Bradford Council ICT Department:** Online version of mapping system

**Landscape, Design & Conservation Team Graphic Designer:** Document Design

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# Introduction

**This Winter Service Operational Plan describes the arrangements for the Winter Service operated by City of Bradford Metropolitan District Council and has been produced in accordance with the requirements of the national “Code of Practice: Well Managed Highways Assets” published in October 2016.**

The contents of the Winter Service Operational Plan describe the arrangements which have been put in place for the Winter 2017-18 season which commences in October 2017 and runs through to the end of March 2018.



# 1. WINTER RISK PERIOD

**1.1 The Winter Risk Period runs from the 1st October until 30th April with a low risk period from 1st October until mid November and mid March to the end of April with monitoring of weather information and data throughout the whole period.**

**1.2** Bradford MDC operates one of the largest Winter Maintenance operations in the UK for a Metropolitan District Council. On a normal gritting run there are 24 routes driven over a total of approximately 704 miles, which accounts for 62% of the Highway Network.

**1.3** All the drivers are in-house, the largest percentages of drivers are from the Highway Maintenance Section and also several drivers are from the Parks and Cleansing Division and supported by two contractors. Teams operate from four depots; Wakefield Road, Queensbury, Keighley and Ilkley.

**1.4** Winter Maintenance is an expensive operation and the Department of Place continues to investigate new methods of treatment and/or systems that may offer opportunities to reduce costs. More details are shown in the attached gritting tree (SEE APPENDIX 1).

**1.5** The geography and topography of the district makes the winter maintenance operation challenging, most notably because Bradford is situated in a very hilly and highly populated location.

**1.6** Local district centres range in altitude from Queensbury at over 1,100ft. above sea level to 325ft. above sea level at Bradford City Hall with locations such as Odsal Top (696ft.), Buttershaw (867ft.), Woodside (760ft.), Wyke (600ft.), Clayton (700ft.) in the south all being above the 500ft 'snow line' altitude. Whilst in the north of the district population centres of Allerton (750ft.), Oakworth (800ft.), Denholme (984ft), Haworth

(750ft.) and Cringles at Silsden (760ft.) contrast with Keighley town centre which is at an altitude of 271ft.

**1.7** It is estimated that 50% of the district's population live at or above 500ft above sea level.

**1.8** Operationally for the Winter Service function the Pennine side of the district which includes the settlement of Oxenhope, Denholme and Queensbury are the most problematic to service during severe weather due to their rural settings (SEE APPENDIX 2).

**1.9** In the wake of the severe winters, between 2009 and 2010 the Government commissioned a report named the Quarmby Review which reviewed the national response to severe and prolonged weather events. The key focus of the recommendations from the Quarmby review was to develop:

- **Greater resilience in Salt stocks** - In periods of extreme weather the relevant authorities (Local Highway Authorities) are not constrained in their use of Rock Salt.
- **Establishment of data Collection Systems** - Improve co-ordination and dissemination of research and specifically a review of technical standards and guidance, which would lead to more effective and efficient use of salt.
- **A requirement for all LHAs to review their Winter Service Plans** - Ensuring links with wider resilience planning; consultation on improving information about these plans.

- **Improve communications during periods of bad weather.**
- **Work with other Councils and the community** - to improve responses to snow events.

This Winter Service Plan will show where all the areas for continuous improvement have been made and seek approval of this council.

## History of Gritting (2009 - Present)

**1.10** During the past eight years there have been two significant winter periods where conditions have merited significantly more intensive and frequent treatment to the network as illustrated in the table below:

YEAR	NUMBER OF NETWORK TREATMENTS	TOTAL SALT USED (TONNES)
2009 - 2010	106	21,000
2010 - 2011	85	13,300
2011 - 2012	73	12,500
2012 - 2013	117	22,000
2013 - 2014	45	6,300
2014 - 2015	68	14,800
2015 - 2016	36	7,700
2016 - 2017	40	6,900

## The Law

**1.11** The Highways Act 1980 Sections 41 and 58 states that the Highway Authorities have a statutory duty to maintain the highway and must at all times take reasonable care to ensure that the Highway is not dangerous.

**1.12** Section 150 of the Highways Act 1980 imposes a duty upon authorities to remove any obstruction on the highway resulting from *“accumulation of snow or from the falling down of banks on the side of the highway or from any other cause”* The railways and Transport Safety Act 2003 (section 111) has inserted an additional section (41(1)) to the Highways Act 1980 which places a duty on Highway Authorities in respect of winter conditions. In particular, it states:

“ A Highway Authority is under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice. ”

**(Note that this is not an absolute duty given the qualification of ‘reasonable practicability’ and that the description ‘Highway’ applies to both carriageways and footways).**

## 2. ROUTE PLANNING FOR CARRIAGEWAYS AND FOOTWAYS

### Carriageway Routes for Pre-Treatment

#### PRIORITY 1:

##### MAIN ROADS (SEE APPENDIX 3)

**2.1** The salting network identified for precautionary treatment are designed either to prevent the formation of ice in frost conditions or prevent snow or freezing rain from bonding to the road surface. This includes all classified roads (A, B and C roads) heavily trafficked routes, bus routes, roads connecting isolated communities, Strategic residential / estate link roads, access to hospitals, schools, police, stations ambulance stations, fire stations and known trouble spots e.g. Steep gradients, tight bends, exposed areas and wet spots. (i.e. before road temperatures reach 0° centigrade freezing).

**2.2** Under the Priority 1 plan the gritting operation treats 24 routes over a total distance of 704 miles which is 62% of the Highway network. Each route accounts for approximately 30 miles and is completed within 2 hours 50 minutes depending on traffic flow.

#### PRIORITY 2:

##### SIDE ROADS

**2.3** These routes include minor estate roads, other bus and school routes that are of a varied width and not always capable of carrying two way traffic and are generally in built up residential areas with a high population. These roads are only treated once the operational managers are confident that the Priority 1 network has been attended to.

#### PRIORITY 3:

##### RAPID RESPONSE / PLOUGHING ROUTES

**2.4** These routes are treated under a Rapid Response Plan / Ploughing Routes when there is a possibility of a severe weather forecast which includes the threat of sudden ice conditions or imminent snow fall. These routes are shorter than the Priority 1 routes and should be treated within one hour of commencement.

#### PRIORITY 4:

##### NIGHT PATROL OR ICE PATROL FUNCTION

**2.5** From the start of the winter maintenance season the operation has 1 or 2 Gritters on standby everyday, available from 22:00 pm until 07:00am to patrol the network when the temperature and/or weather forecast is marginal.

**2.6** These night patrol units are deployed to areas of high ground on the network usually above 500 feet and will also treat prescribed wet spots where water has the potential to run off fields and freeze, causing ice patches on the carriageway when weather forecasts are marginal for freezing conditions. They also attend emergency water leaks where there is a risk of icy patches.



## Footway Routes including Footbridges and Other High Risk Pedestrian

### PRIORITY 1- F

**2.7** Footway Gritting - consists of 7 dedicated routes covering the city centre in Bradford, town centres in Shipley, Baildon, Bingley, Keighley and Ilkley. The footways treated in the city and town centre are pedestrian areas, busy urban shopping and business areas, transport interchanges, public buildings and outside St Lukes, Bradford Royal Infirmary (BRI) and Airedale hospital at Keighley. These footways are treated during periods of prolonged frost and ice or snow events.

**2.8** Staff from the Parks and Landscapes section carry out footway treatment in the City/Town centres using a white marine salt. They operate only over a 12 week period, usually from the start of December to the end of February. However, they will mobilise during periods of prolonged frost and snow events.

### PRIORITY 2 - F

**2.9** These footways are of medium usage routes through local areas, used by the public to access local shopping areas, post offices, medical centres and school routes in busy residential areas and villages. Priority 2 footway gritting routes will be gritted after all Priority 1-F routes are completed and resources are available.

**2.10** Hand gritting of all other priority areas will be carried out as and when resources become available.

## Response and treatment times for carriageway treatments

**2.11** The Service plans and monitors its performance during the winter season in relation to response times and treatment times. The response time is the period between a decision being taken to commencement treatment by the Winter Operations Manager and the vehicles leaving the winter service depots. The treatment time is the period between the vehicles leaving the winter service depots and the completion of the treatment of the priority route.

**2.12** The target response time for the treatment of carriageway routes is 1 hour. The individual target treatment times for Priority 1 routes is 2 hours 50 minutes.

**2.13** Priority 2 routes should be completed within a target of 6 hours.

**2.14** Priority 3 routes are treated within a target window of approximately 1 hour and 30 minutes.

## Response of treatment times for Footway Routes

**2.15** The target response time for Priority 1 Footway Gritting Route is 1 hour with a treatment time for the Priority 1 footways of 2 hours per route.

**2.16** Priority 2 Footway routes will commence at the discretion of the Winter Operations Manager and only when the Priority 1 routes are completed. There are no specific targets for these routes.

## Allocation of Plant, Vehicles, Equipment and Materials to Routes

**2.17** The Priority 1 network covering 24 routes is gritted by:

NUMBER OF VEHICLES	TYPE OF VEHICLE
1	20 tonne Bulker (Fixed gritter body with body and plough)
8	17 tonne Bulker with plough
9 (4 hired)	17 tonne with demountable gritter backs and plough attachments
2	Tractor / trailer / trailer gritters with plough
4	7.5 tonne Multi-spreader

All the above vehicles are fitted with G.P.S Tracking systems which include information relating to spread rates and spread patterns.

**2.18** The fleet also has back up vehicles which are deployed on Priority 2 Routes in severe weather.

BACK UP VEHICLES	TYPE OF VEHICLE
2	17 tonne bulker
1	17 tonne demountable body with plough
4	10 tonne multi-spreaders
6	Tractors and bobcats with ploughs
3	7.5 tonne multi spreader

**2.19** Priority 1 Footway routes are gritted by 9 No x Kubota (small tractor) with spreaders which are provided and operated by staff from the Parks and Landscape Section.

**2.20** Priority 4 networks are patrolled by 2 x 17 tonne Bulklers deployed from Stockbridge and Wakefield Road depots.

## Allocation of Plant, Vehicles, Equipment and materials during periods of Severe Weather

**2.21** During periods of severe weather (or protracted periods) the Winter Service Operations Team will call in addition plant and staff resources from the Private Sector. Currently, arrangements exist with local private-sector providers to bring the following additional resources into the Winter Maintenance operation:

NO. OF VEHICLES	TYPE OF VEHICLE / DRIVERS
2	Snow blowers
6	Tractors with snow ploughs
2	Bob cats
10	JCB's
7	Footway kubota / tractors
5	Bulk gritters
23	Gritter drivers
41	Operatives – hand gritting – snow clearance

## Location and Maintenance of Grit Bins

**2.22** Currently on the Bradford network there are in excess of 500 grit bins deployed which are predominantly located in the north of the district as illustrated in the table below:

PARLIAMENTARY CONSTITUENCY AREA	NUMBER OF GRIT BINS
Bradford West	46
Bradford South	80
Bradford East	90
Keighley	141
Shipley	161

**2.23** The Council will maintain a computerised register of all grit bins on its network in the form of a GIS map layer. There are currently 550 grit bins deployed on our network.

**2.24** Deployment of grit bins is seen as essential to ensuring that those areas of the network which are not covered by the Priority gritting routes have a facility for treatment by local residents / road users in periods of wintery conditions.

### Applications for New Grit Bin Sites

**2.25** The Council will assess any application for a new grit bin in line with an approved criteria assessment matrix (below) which adopts a risk based approach to the assessment of locations. The use of this assessment matrix will ensure that only those locations where the greatest risk of danger to the public are prioritised for deployment of grit bins. It is worth noting that if a site meets the criteria requirement a grit bin will only be provided by the Council where budgets permit.

## Application Procedure

**2.26** Where a member of the public feels that the need for a grit bin is warranted an application for a grit bin can be made via the Customer Contact Centre or Council website which must detail the proposed location together with confirmation of arrangements for use of grit during winter periods. Where a location can be serviced by a Winter Gritting volunteer group and a Champion (or lead volunteer) can be identified in the application this will be appropriate accommodated in the assessment matrix.

**2.27** An assessment of the site is undertaken by Council officers and where the acceptance criteria is met the location is added to the list of sites for grit bin deployment which will be addressed as and when budgets permit.

**2.28** If the member of the public feels that the need is of such urgency they may pay for a grit bin to be installed at a cost of £100. This cost will include the purchase of the grit bin and an initial filling following deployment.

“ Currently on the Bradford network there are in excess of 500 grit bins. ”

## **Council Responsibilities for Grit Bins**

**2.29** Grit bins which have been provided by the Council will be assessed at the start of each winter season and any repairs to the fabric of the grit bin which are identified repaired or the bin replaced as appropriate. Where a bin has been provided by an independent third party (including Town and Parish Councils) the necessity for repair and replacement of the bin will be communicated to the respective party.

**2.30** All grit bins identified on the GIS map layer which are in serviceable condition will be filled at the start of the winter season. Bins which are not in serviceable condition will not be filled until all necessary repairs are undertaken.

**2.31** On-going replenishment of supplies will then take place as and when resources permit throughout the winter season (October to March). It should however be noted that this replenishment will take a lower priority to the treatment of Priority 1 and Priority 2 routes and consequently if resources do not permit the Council may not be able to replenish supplies in all locations throughout the season. In all cases those locations which have an active Winter Gritting Volunteer team will take precedence for replenishment. During periods of prolonged severe weather staff from Street Cleansing will be deployed to restock grit bins.

**2.4.** Replenishment of any grit bin may be funded externally to the Council at any time through the winter season for a charge of £25 payable in advance.

## 3. WEATHER PREDICTION AND INFORMATION

### Road Weather Information Bureau Services

**3.1** Bradford Council as part of the West Yorkshire Combined Authority has contracted Meteogroup and Viasala Weather Bureau to provide weather information and forecasting to the authority on a daily basis during the winter risk period from the start of October to the end of April. The forecast is updated or confirmed on a regular basis during the 24 hour period.

**3.2** Meteogroup will e-mail the daily Specialist Road Weather forecast to the Winter Service Officer. The weather information is web based and password protected.

### Road Weather Stations

**3.3** Weather forecasting for the district is monitored from 2 weather situations located at Queensbury and Silsden which feeds Road surface temperatures to the Viasala Weather Bureau. Weather information for Meteogroup is also gathered from these two stations along with their own weather forecasting models. The data available from the outstations can be presented in both graphic and tabular formats that include:

- a) Road surface temperature
- b) Air temperature
- c) Wind and speed direction
- d) Precipitation
- e) Surface state (including level of salt present on the road surface).

### The Decision Making Process

**3.4** The decision to carry out Winter Service operations and the type of operation to be carried out (e.g. pre-gritting of all routes or to run off and wet spot gritting) is made by the Winter Service Officer, along with the Winter Operations Manager on duty, after consulting the 24-hour Specialist Road Weather Forecast Information supplied by Meteogroup and the weather stations together with any additional information from the West Yorkshire Authorities.

### Information to be Provided

**3.5** The information provided to make a decision on Winter Service Operations is provided by Meteogroup and also direct access to the information from the outstations, which improves the accuracy of their forecasts. The Specialist Road Weather Forecast includes:

- a) **Monitoring Summary- available from around 06:00 hrs. The forecast is for the next 36 hours.**
- b) **Main lunchtime forecast – available from 12:00hrs. This forecast contains a graphic and text forecasting giving details and confidence of hazards including ice, hoar frost, snow, fog, strong winds to rainfall. Wind speeds and direction, road state and snow depth accumulations at various altitudes predictions can all be provided.**
- c) **A 5 day and 15 day forecast of expected hazards of ice, hoar frost, snow, fog, strong**

winds and rainfall together with comments on the outlook.

d) Evening Update-available from around 18:00 hours. The forecast is for the next 36 hours.

3.6 Meteogroup carry out a 24 hour monitoring of conditions and if these vary significantly they will contact the Winter Service Officer to advise of the change and, where appropriate, will issue an updated forecast.

### Sample of weather forecast from Meteogroup

date time	weathertype	precip-prob. (%)	precip (mm/hour)	Snow (cm/hour)	snowfall height (m)	temperature 1,5m (°C)	road		dewpoint (°C)	rel. hum. (%)	cloud iness (8/8)	wind direction	windspeed (mph)	windgust (mph)
							temp. (°C)	condition						
Thu 9 February 2017														
13:00	mostly cloudy	50	0.0	0	100	-0.1	2.2	D	-2.6	83	7/8	e	24.2	27.8
14:00	overcast	55	<0.1	<0.1	100	0.0	2.0	D	-2.9	81	8/8	e	21.9	22.8
15:00	overcast	5	0.0	0	95	-0.3	1.4	D	-3.2	81	8/8	e	18.4	19.1
16:00	overcast	10	0.0	0	90	-0.6	0.5	D	-3.4	82	8/8	e	15.0	21.9
17:00	mostly cloudy	10	0.0	0	80	-0.9	-0.3	D	-3.3	84	7/8	e	15.0	23.1
18:00	mostly cloudy	20	0.0	0	30	-1.1	-0.8	D	-3.0	87	7/8	e	13.8	23.7
19:00	mostly cloudy	20	0.0	0	0	-1.3	-1.1	D	-2.8	89	7/8	ene	13.8	23.8
20:00	mostly cloudy	15	0.0	0	0	-1.4	-1.3	D	-2.8	90	7/8	ene	13.8	23.7
21:00	mostly cloudy	15	0.0	0	0	-1.5	-1.4	D	-2.8	91	7/8	ene	12.7	23.5
22:00	mostly cloudy	20	0.0	0	0	-1.6	-1.4	D	-2.8	91	7/8	ene	12.7	22.6
23:00	mostly cloudy	20	0.0	0	0	-1.6	-1.5	D	-2.7	92	7/8	ene	11.5	21.2
Fri 10 February 2017														
00:00	mostly cloudy	25	0.0	0	0	-1.7	-1.6	D	-2.7	93	7/8	ene	11.5	20.3
01:00	light snow	20	0.2	0.2	0	-1.8	-1.7	S	-2.8	93	7/8	ene	11.5	20.5
02:00	light snow	20	0.2	0.2	0	-1.9	-1.9	S	-2.8	93	7/8	ene	11.5	20.8
03:00	light snow	20	0.2	0.2	0	-2.0	-2.0	S	-2.8	94	7/8	ne	11.5	21.1
04:00	light snow	25	0.2	0.2	0	-2.0	-2.1	S	-2.8	94	7/8	ne	12.7	21.1
05:00	light snow	25	0.2	0.3	0	-2.0	-2.1	S	-2.8	94	7/8	ne	12.7	20.9
06:00	light snow	25	0.2	0.3	0	-1.9	-2.0	S	-2.8	93	7/8	ne	12.7	20.9
07:00	light snow	25	0.1	0.2	0	-1								

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actual
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### Night Patrol Function and Ice Patrol Function

**3.7** At the discretion of the Winter Service Officer, a Night Patrol function will be carried out by, an emergency Call out Officer working alongside the Winter Operations Manager to verify or amend the forecast temperatures.

### Timing and Circulation of Information

**3.8** The decision on the Winter Service Operations to be carried out over the next 24 hours is made by 14:00 hrs (any amendments in the 18:00 hrs update will be considered by the Winter Service officer).

**3.9** The Winter Service Officer will then discuss the Weather Information and Winter Service Operations that are to be carried out with the Winter Operations Manager during the working week.

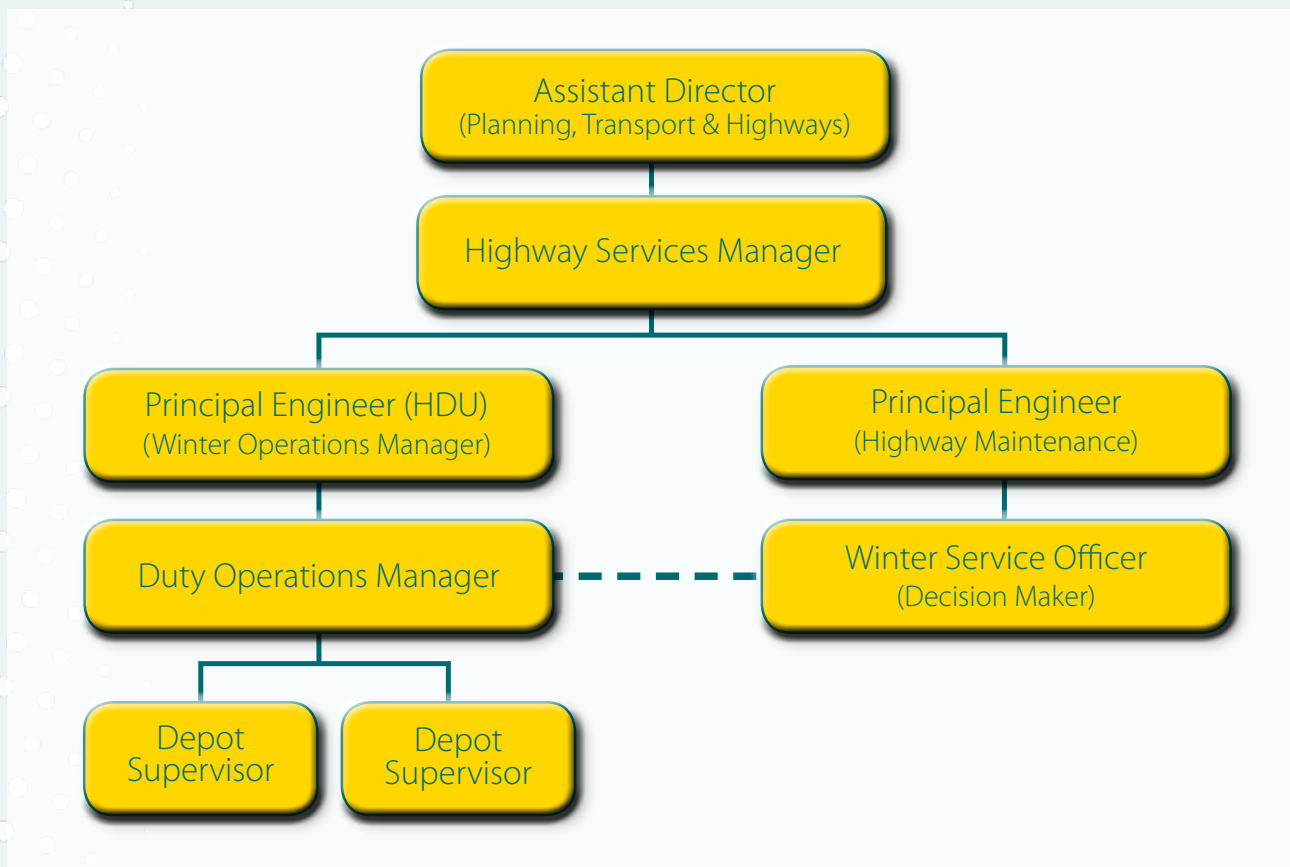
**3.10** The Winter Operations Manager will be responsible for making decisions during the week, 07:00 hrs to 18:00 hrs, in severe conditions on allocation of plant and resources.

“ At the discretion of the Winter Service Officer, a Night Patrol function will be carried out by an Emergency Call Out Officer ”

## 4. ORGANISATIONAL ARRANGEMENTS AND PERSONNEL

### Employee Roles and Responsibilities

4.1 The organisation of staff for the Winter Service is shown in the chart below:



4.2 The Highways Services Manager in Planning, Transportation and Highways Service holds overall responsibility for the Winter Maintenance Service.

4.3 The Winter Service Officer and Winter Operations Manager hold overall responsibility for

decision-making. The Decision Maker is responsible for monitoring the road and weather conditions, for reaching an appropriate decision on treatment of the network and passing this information to the Duty Operations Manager who is responsible for overseeing the work.



**4.4** The Duty Operations Manager holds responsibility for supervising operatives and effective utilisation of vehicles and plant during Winter Service operations to effect swift treatment of the road network, including decision-making during out of hours and weekends or when the Winter Service Officer is not available.

**4.5** Gritter Drivers holds responsibility for ensuring that:

- **The gritting vehicle is in good working order and all defects are reported.**
- **The gate settings are set to the pre-determined spread rate.**
- **The allocated gritting route is followed correctly.**

**4.6** Footway Gritter Drivers (*as above*).

**4.7** More detailed explanations of the roles of the winter maintenance operatives is included in the “*Winter Maintenance Good Practice Guide*” published by NWSRG.

**4.8** All personnel involved in the Winter Service should acquaint themselves of the duties, responsibilities and working procedures necessary for them to carry out their tasks effectively.

## Employee Duty Schedules, Rotas and Standby Arrangements

**4.9 Winter Operations Officer/ Winter Operations Manager** - These officers will be on standby from Monday at 07:00 hrs and will terminate the following Monday at 07:00 hrs.

**4.10 Gritter Drivers** - The Gritting week will commence on Monday at 07:00 hrs and will terminate the following Monday at 07:00 hrs.

**4.12 Footpath Gritter Drivers** - As above.

### Contact Details

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Assistant Director  
Planning, Transportation  
& Highways Service

**Richard Gelder**                      **01274 437603**  
Highways Services Manager

**Andrew Whelan**                      **01274 434409**  
Principal Engineer  
(Highway Maintenance)  
/ Decision Maker

**David Mazurke**                      **01274 434199**  
Principal Engineer (HDU) /  
Winter Operations Manager

**Louise McCaul**                      **01274 434885**  
Division Manager /  
Duty Operations Manager

**Kevin Whitaker**                      **01535 618262**  
Senior Engineer /  
Decision Maker

**Outside of normal working hours all contact should be made through the Customer Contact Centre on 01274 431000.**

## 5. STANDARD OPERATING PROCEDURES AND DECISION MAKING

### **5.1 Good communication between the Winter Service Officer and the Winter Operations Manager is crucial. Mobile telephones and laptops are used by officers.**

**5.2** The decisions on the gritting operations for 24/7 from Mid- October to End- April will be made by the Winter Service Officer after consulting the weather information providers. Once the decision from the weather forecast is made the Winter Service Officer will contact the Winter Operation Manager, who will then instruct his depot supervisor, who is responsible for the gritters at the depot to take the necessary action.

**5.3** The Depot Supervisors will contact the Gritter drivers on standby for deployment of the Gritters. The Winter Operations Manager will be regularly updated as the operation proceeds and when the action is complete.

**5.4** Constant liaising between the Winter Service Officer and the Winter Operations Manager will occur. If the weather pattern changes, also if certain roads on the network. (In particular, High Ground) is causing concern.

**5.5** During severe snow or Ice conditions the Emergency Management Team will coordinate and facilitate the Councils resources in liaison with partners (Emergency Services, Health Community etc) through a multi agency approach to the weather emergency to prioritise with the Operations Manager where resources are to be deployed.

**5.6** The Emergency Planning Manager, Winter Service Officer and the Winter Operations Manager will meet daily if severe weather persists across the district.

**5.7** Throughout any weather event the Winter Service Officer will communicate with Meteogroup and the Vaisala call centres, to speak with the duty forecaster to make further decisions or amendments regularly for the gritting operations.

**5.8** All information received electronically must be saved; any verbal information received during phone calls with a Met Office Forecaster must be logged in the Gritting Diary.

**5.9** Dependant on the weather forecast, pre-gritting operations should commence early evening (usually commencing at 18:30hrs and be fully completed by 21:00 hrs). An early pre-grit will commence at 05:00hrs and be completed by 08:00hrs. All routes should be completed before road surface temperatures reach 0 Degrees Celsius.

**5.10** Once the pre-grit operation is complete, the standby team of drivers and supervisors will stand-down. However, dependant on any forecast updates and weather conditions the Winter Service Officer will discuss with the Winter Operations Manager the need to keep 1 or 2 gritters on the network under (PRIORITY 4) Night & Ice Patrol function, to monitor any change in temperature and weather conditions.

**5.11** Priority 2 action is determined by the Winter Operations Manager once the Priority 1 network is clear.

**5.12** Priority 3 gritting action is again at the discretion of the Winter Service Officer and the Winter Operations Manager.

**5.13** Priority 1 and 2 Footway treatment is at the discretion of the Winter Operations Manager who will liaise with the Parks and Landscape Officers on stand-by duty.

**5.14** A daily record sheet must be filled in by the supervisors at the depot for every call out occasion. This includes night patrol or ice patrol operations. Any instruction given, or changes to planned arrangements must be accurately recorded (SEE APPENDIX 5).

**5.15** It is the responsibility of the Winter Operations Manager with Supervisors (Assistant Managers) to ensure that there are sufficient vehicles and equipment that is maintained by Fleet Services available at any time.

**5.16** The Operations team must ensure all Weather Forecasts, daily record sheet and the archiving of information for future reference i.e. any claims or litigation and complaints are kept at the Wakefield Road Depot, Bradford.

## Drivers Hours Regulations Policy

**5.17** The Driver's Hours Regulations, which are a legal requirement, determines the total hours a driver can work during the day, the minimum length of break between shifts and the weekly rest periods. Bradford's Winter Maintenance Operation for driver's hours are governed by the GB Domestic Rules which apply for all vehicles with a maximum permissible weight in excess of 3.5 tonnes.

## Goods Vehicles (Gritters)

### Daily Driving Limit

**5.18** Drivers must not drive for more than 10 hours in a day. The daily driving limit applies to time spent at the wheel actually driving on a public road. Off-road driving counts as duty time.

### Duty Time

**5.19** Duty time for all company drivers is defined as any working time. Self-employed drivers definition of duty time is only the time spend driving vehicles or doing other work related to the vehicle or its load. The daily Duty Time limit is not more than 11 hours in any working day. This limit does not apply on any working day where operatives do not drive.

**5.20** Under the UK Domestic Rules the minimum driver's rest period when driving is 30 minutes in duty time over 6 hours, 45 minutes between 6 hours and 9 hours and 60 minutes for over 9 hours with a maximum 11 hour duty period. Breaks are to be split evenly over the working day with the last period taken before the 10th hour. Breaks are not included in total duty time.

**5.21** For services which provide an emergency provision (e.g. gritting), to be considered an emergency event should be both "unforeseeable and unforeseen". Even if utilising emergency provision managers must provide sufficient breaks and rest between shifts to ensure safety. Drivers are not to drive for more than 6 days in one continuous period.

**5.22** In setting winter gritting policy regard has been taken of policy advice issued by Bradford Fleet Service Action Group. Previous winter work records and demand have been reviewed in order to set a policy which provides resources to match demand in so far as that can be predicted.



**5.23** In the event of weather events which are unusually severe or sustained it may be necessary to ask drivers to work additional hours or days. It is anticipated that where this falls on a rest day that the drivers will work a further three hours and then have a sustained break before working a further three hours. Therefore driver fatigue will be mitigated. Where this takes place managers will monitor the situation and provide compensatory rest at the first opportunity.

**5.24** If there is a weather pattern or event that can not reasonably be foreseen then managers may consider utilising the “emergency” provision to ensure public safety.

**5.25** This policy has been created with the aim of ensuring driver and public safety while complying with the “adequate rest” provision contained in UK Domestic driving rules.

**5.26** The Winter Operations Manager and his team are responsible for the drivers’ hours so they are not exceeded and will ensure that the records are accurate. Rest time for drivers will be paramount in all decisions made on gritting, during severe weather at all times.

**5.27** All timesheets are audited on a weekly basis by the Technical Enforcement Coordinator, Fleet Transport Services.

“ The Emergency Planning Manager, Winter Service Officer and the Winter Operations Manager will meet daily if severe weather persists across the district. ”

## 6. SALT STORAGE

### 6.1 The Rock Salt for the district is stored at four locations across the district.

LOCATION	MAX STOCK Tonnes	MIN STOCK Tonnes	COVERED Tonnes	UNCOVERED Tonnes
Wakefield Road Depot	16,300	12,300	4,000	12,300
Queensbury Depot	600	100	600	N/A
Stockbridge Depot	7,300	2000	NIL	7,300
Ilkley Depot	600	100	NIL	600
<b>TOTALS</b>	<b>24, 800</b>	<b>14,500</b>	<b>4,600</b>	<b>20,200</b>

6.2 Marine Salt for City and Town Centres are stored at the Wakefield Road Depot and also at the Stockbridge Depot.

### Resilience

6.3 The Council's Resilience level is determined as:

Overall Winter Period

1st October to 30th April

Days Resilience (Overall Winter Period)

15 Days

Core Winter Period

1st December to 28th February

Days Resilience (Core Winter Period)

20 Days

MINIMUM SALT STOCKS					
			MINIMUM STOCK		
Route Priorities	Minimum Winter Network (Tonnes/ Run)	Minimum Winter Network (Tonnes/Day)	Overall Winter Period 15 Days Resilience	Core Winter Period 20 Days Resilience	30 Days Resilience
PRIORITY 1	120 x 2	240	3,600	4,800	7,200
PRIORITY 2	100	200	3,000	4,000	6,000
PRIORITY 3	80	80	1,200	1,600	2,400
PRIORITY 4	30	30	450	600	900
FOOTWAYS	20	20	300	400	600
<b>TOTALS</b>		<b>480</b>	<b>8,550</b>	<b>11,400</b>	<b>17,900</b>

**6.4** On the basis of recent experience, the salt stock levels at the commencement of the winter season has been reviewed to the revised maximum storage capacity available across the district. The total stock level of 24,800 is more than sufficient for an average winter and provides in excess of the recommended 12 day level of resilience.

**6.5** Resilience within the country is managed through the Civil Contingencies Act 2004 and the Local Resilience Forums. These forums are Police Force area based, e.g. West Yorkshire.

**6.6** The members of this forum give Strategic Direction through the Strategic Coordination Group (GOLD) to the Tactical Coordination Group (SILVER). They in turn liaise with each Local Authority to ensure the coordination of the emergency for both supplies and other Resources.

**6.7** Within Bradford the coordination is managed through a Local Silver group whose members include Emergency Services, Health and Local Authority Officers. Feeding into this group would be work of a smaller group that continually review the gritting issues for the council. This group is made up of:

- Highway Services Manager
- Winter Operations Manager
- Winter Service Officer
- Emergency Planning Manager

**6.8** This group meets collectively agree any modification to the Priority treatment routes and makes recommendations to the local Silver Group for discussion with the greater partner meeting in order to ensure that their options are suitable for partners and the resilience of the Bradford District.

**6.9** During prolonged periods of inclement weather the local group described in 6.7 above will consider whether temporary implementation of reductions in the lengths of roads to be gritted in order to maintain service resilience is required. Where any such reductions are proposed this information will be discussed with the local Silver Group prior to its implementation. The salt stock figure to trigger this review will be 10,650 Tonnes which would give 15 days' resilience. At this point the extent of Priority network treatment could be reduced from 704 miles per treatment to 412 miles (Priority 3).

## Mutual Aid

**6.10** Mutual aid is a pre-agreement between one or more organisations to assist each other, as far as practicable, to overcome disruptive challenges. Mutual aid between authorities is often used in response to "wide" area emergencies as the impact on the local authorities, emergency services and other resources can be overwhelming.

**6.11** Mutual Aid in Salt Supply and contingency arrangements in advance, are in place through a Salt Cell Group arranged by the DFT (Department for Transport) in London. The other five Local Authorities in West Yorkshire; Leeds, Calderdale, Kirklees and Wakefield are represented on this

group. Salt Cell monitors and communicates with the Winter Operations Manager weekly during the winter season.

**6.12** The DFT also maintain a substantial national emergency salt reserve and have a robust distribution process in place, if for any reason, this salt of last resort is needed to be allocated.

## Treatment requirements including Spread Rates

**6.13** The Precautionary salting of the network is carried out at 15-20 g/m<sup>2</sup>. At specific locations, or where ice and snow already has formed on the road surface and on steep hills, the drivers are instructed to increase the spread rate ranging between 20-30g/m<sup>2</sup>.

**6.14** All the gritters on the network are monitored by a real time G.P.S device that reports the location and spread rates.

**6.15** The decision of spread rates are based on The Best Practice Guide for Spreading Salt, produced by the NWSRG (National Winter Service Research Group). This group is funded from the Local Authorities and UK national governments, this provides guidance to practitioners with a "what you need to do and how to do it safely, sustainably and cost effectively.

## 7. OPERATIONAL COMMUNICATIONS

### **7.1 Daily Winter service operations will be posted on the City of Bradford Metropolitan District Council Web Site.**

**7.2** During the winter season the Operational plan of action is communicated to members and Senior Officers and the Customer Contact Centre of the Council. Daily briefings will be arranged with Officers and C.M.T during periods of severe weather with a particular focus on salt stocks and level of resilience.

**7.3** All Operatives driving vehicles involved in the gritting operations are supplied with a mobile phone.

**7.4** Since 2010 improvements to the Winter Service Communications have improved by using the Council website and social media. The website pages are regularly updated and contain information about the service. All the routes treated are now identified on plans for all the carriageways and footways across the highway network.

**7.5** The Council's website also contains advice and guidance on what to do during winter conditions. There is also a form on the website for the public to request gritting which is managed by our Customer Services Section and this is sent to the operations team on a daily basis.

**7.6** Recently with the launch of the Bradford App additional functionality has been included to allow residents to request services via Smart phones and other internet connected devices.

**7.7** Social media has developed into an important communication method and we use Twitter to give out operational information.

“ We currently have more than 5,000 followers on our Twitter account that can pick up our winter messages and re-tweet. ”

[www.bradford.gov.uk](http://www.bradford.gov.uk)





## 8. COMMUNITY SELF HELP AND RESILIENCE

**8.1 In 2011 a pilot scheme to introduce “Snow Teams” within Bradford district was introduced. This scheme assisted groups within communities to carry out winter treatment of footpaths. Community self help and the snow team scheme enables communities to provide an enhanced service over and above that which the council provides.**

**8.2** The Snow Team Scheme provides groups with snow shovels and rock salt to spread on public roads and footpaths. Resources and guidance are provided before the start of the winter season, further rock salt supplies will be provided in severe weather but only once all Priority 1, 2, 3, and 4 are complete.

**8.3** Since the scheme was set up in 2011 around 70 groups have been provided with resources. The initiative is currently being re-launched with further enhancements funded by additional budget approved as part of the 2016-17 budget process. The new scheme will be co-ordinated through the Neighbourhoods and Environment Area Co-ordinators Officers.

**8.4** The Council’s Priority treatment maps (available interactively on the Council website) now contain information showing the location of grit bins on the network.

**8.5** The Council continue to work closely with the MET Office and the Government to promote advice about self help in winter, including their “*Get Ready for Winter*” campaign. This includes promoting Government guidance such as the “*Snow Code*” (a self help guide published in 2010) this guidance is available on our web pages along with other guidance which is updated on a regular basis.

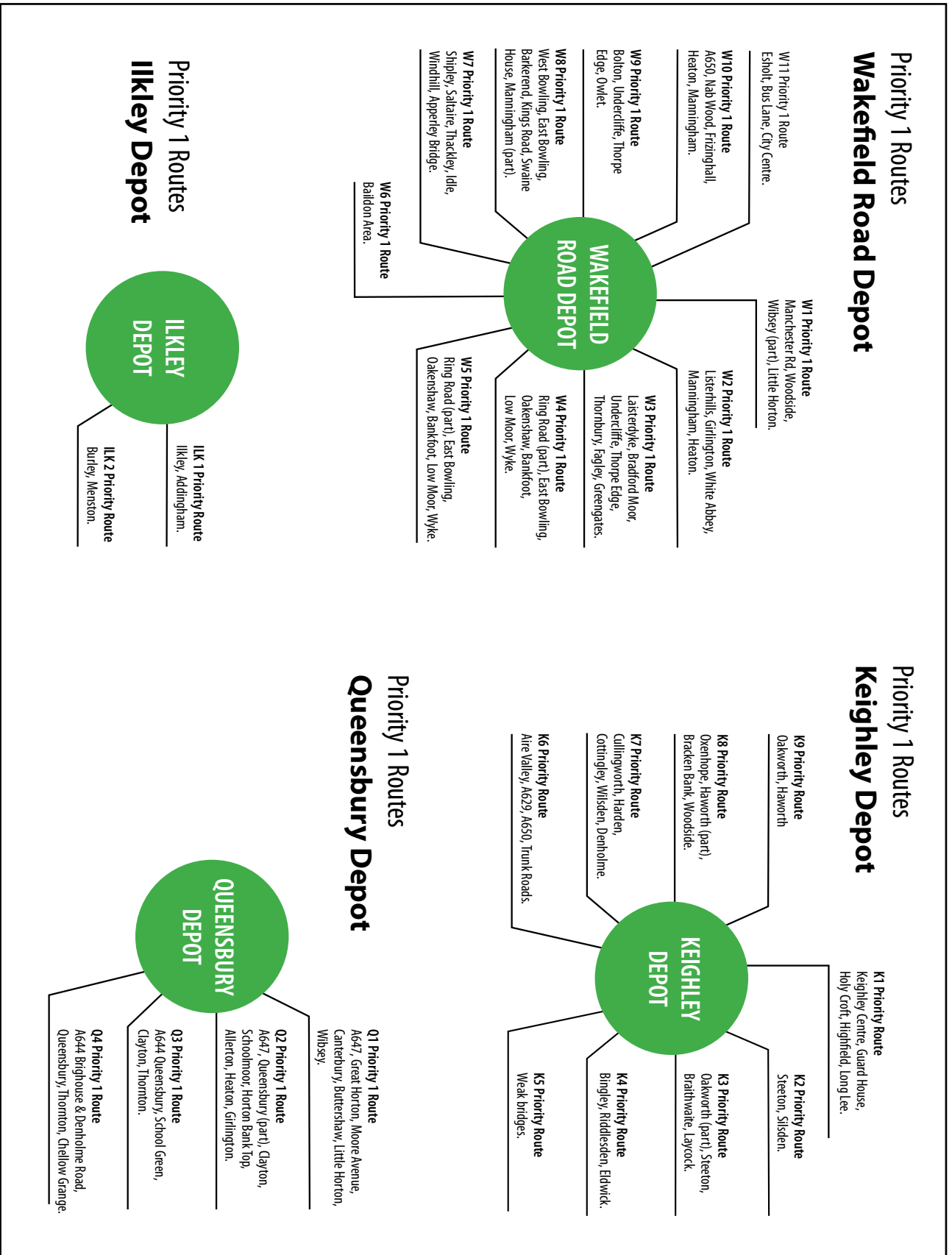




# Appendices

# Appendix 1

## Gritting Tree - Operation of Depots and Routes



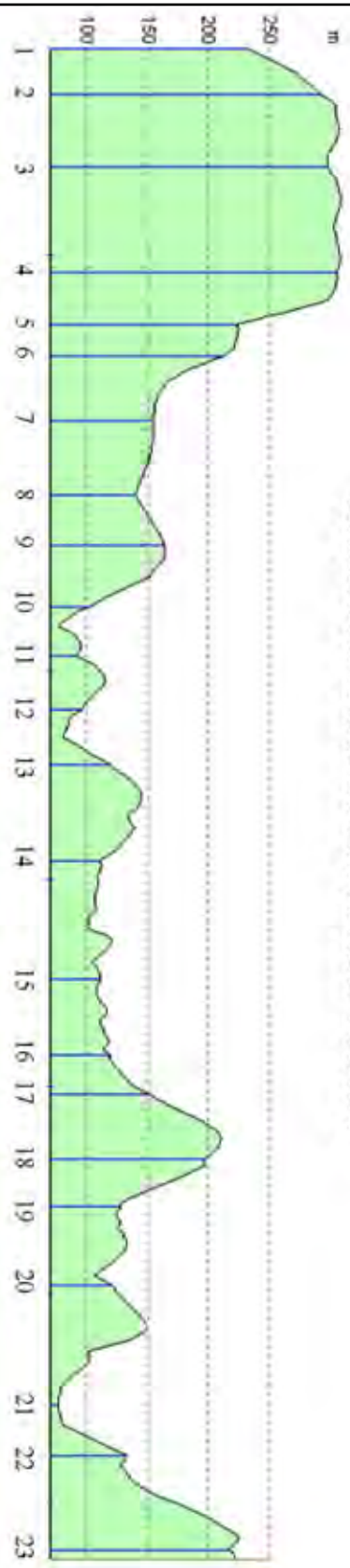
# Appendix 2

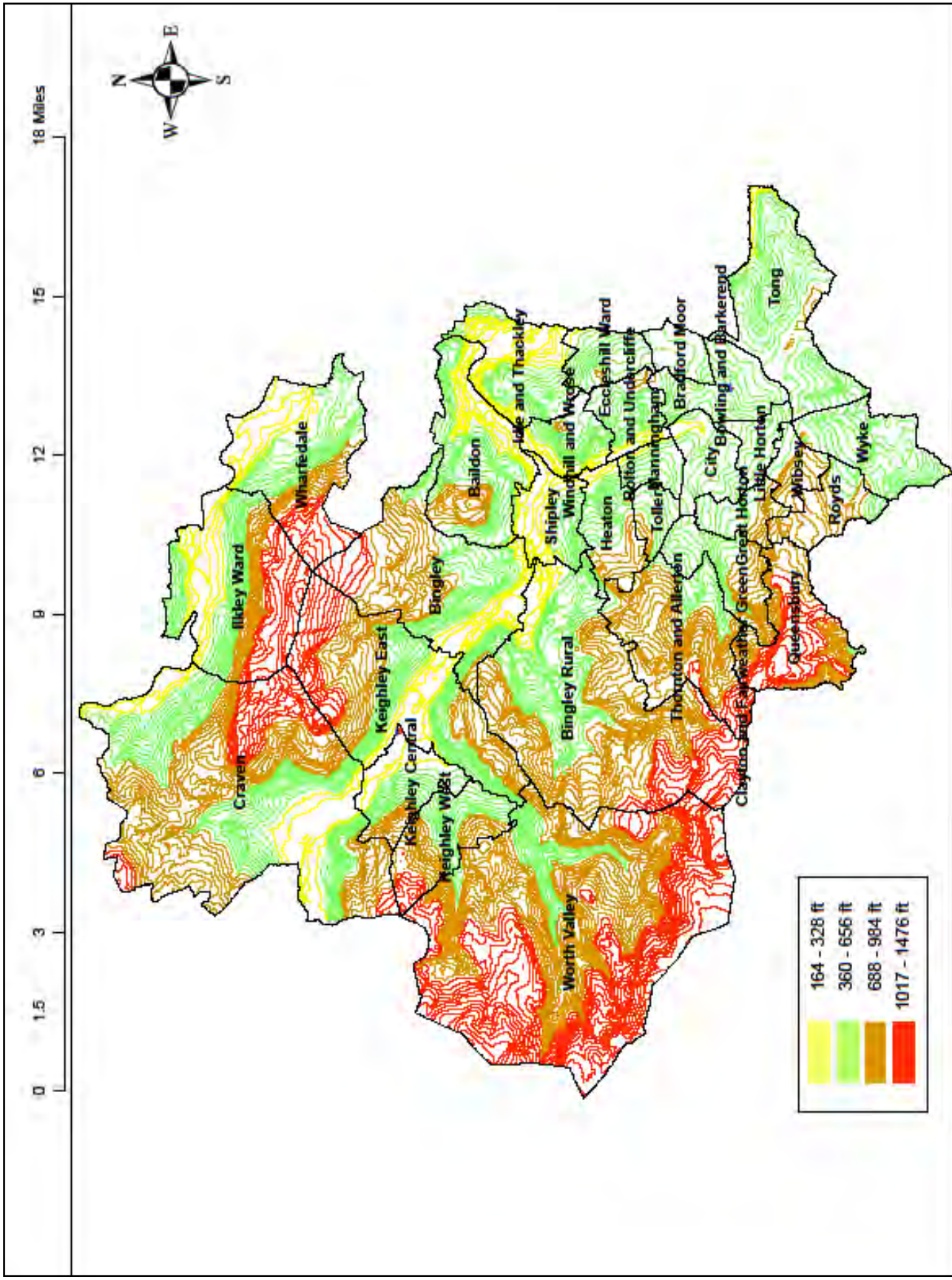
## Altitude in the City of Bradford MDC

AREA / LOCATION	FEET ABOVE SEA LEVEL
Queensbury	1100
Buttershaw	867
Wibsey	810
Woodside	760
Odsal Top	696
Wyke	600
City Hall	325
St. Lukes	465
B.R.I	623
Toller Lane - Roundabout	601
Thornton Road , Girdlington	428
Allerton	750
Sandy Lane - Traffic Lights	706
Haworth Road Y.W.A Treatment Plant	815
Lingbob, Wilsden	736
Crossroads, Cullingworth	654
Mini-roundabout Harden	460
Shipley	250
Bradford Road , Branch	350
Emm Lane	651
Moorhead Lane , Saltaire	490 - 623
Main Street , Bingley	266
Haworth	750
Bus Terminus , Eldwick	703
Village , Oxenhope	672
Stanbury	826
Lynfield Mount , Daisy Hill	776
Five Lane End	649
Wrose Road - Top	585
Eccleshill	690
Thackley Corner	426
Baildon Moor	800
Baildon Centre	525
Keighley	271
Oakworth	800
Denholme	984
Silsden	760
Thornbury	560
Dudley Hill	650
Ilkley Town Centre	311
Ilkley Moor	820

- 1 Haworth
- 2 Oxenhope
- 3 Denholme
- 4 Queensbury
- 5 Clayton
- 6 Halifax Road
- 7 Odsal
- 8 Bfd City Centre
- 9 Undercliffe
- 10 Greengates
- 11 Thackley
- 12 Shipley
- 13 Lower Baildon
- 14 Bingley
- 15 Keighley Centre
- 16 Steeton
- 17 Silsden
- 18 Silsden Moor
- 19 Addingham
- 20 Ilkley
- 21 Burley
- 22 Menston
- 23 Ilkley Moor

### Bradford District Elevation Profile





# Appendix 3

## Gritting Route Maps - Priority 1

### Priority 1 Routes

#### Wakefield Road Depot

##### W1 Priority 1 Route

Manchester Rd, Woodside, Wibsey (part), Little Horton.

##### W2 Priority 1 Route

Listerhills, Girlington, White Abbey, Manningham, Heaton.

##### W3 Priority 1 Route

Laisterdyke, Bfd Moor, Undercliffe, Thorpe Edge, Thornbury, Fagley, Greengates.

##### W4 Priority 1 Route

Ring Road (part), East Bowling, Oakenshaw, Bankfoot, Low Moor, Wyke.

##### W5 Priority 1 Route

Ring Road (part), East Bowling, Oakenshaw, Bankfoot, Low Moor, Wyke.

##### W6 Priority 1 Route

Baildon Area.

##### W7 Priority 1 Route

ShIPLEY, Saltaire, Thackley, Idle, Windhill, Apperley Bridge.

##### W8 Priority 1 Route

West Bowling, East Bowling, Barkerend, Kings Road, Swaine House, Manningham (part).

##### W9 Priority 1 Route

Bolton, Undercliffe, Thorpe Edge, Owllet.

##### W10 Priority 1 Route

A650, Nab Wood, Frizinghall, Heaton, Manningham.

##### W11 Priority 1 Route

Esholt, Bus Lane, City Centre.

#### Queensbury Depot

##### Q1 Priority 1 Route

A647, Great Horton, Moore Avenue, Canterbury, Buttershaw, Little Horton, Wibsey.

##### Q2 Priority 1 Route

A647, Queensbury (part), Clayton, Schoolmoor, Horton Bank Top, Allerton, Heaton, Girlington.

##### Q3 Priority 1 Route

A644 Queensbury, School Green, Clayton, Thornton.

##### Q4 Priority 1 Route

A644 Brighthouse & Denholme Road, Queensbury, Thornton, Chellow Grange.

#### Keighley Depot

##### K1 Priority Route

Keighley Centre, Guard House, Holy Croft, Highfield, Long Lee.

##### K2 Priority Route

Steeton, Silsden.

##### K3 Priority Route

Oakworth (part), Steeton, Braithwaite, Laycock.

##### K4 Priority Route

Bingley, Riddlesden, Eldwick.

##### K5 Priority Route

Weak bridges.

##### K6 Priority Route

Aire Valley, A629, A650, Trunk Roads.

##### K7 Priority Route

Cullingworth, Harden, Cottingley, Wilsden, Denholme.

##### K8 Priority Route

Oxenhope, Haworth (part), Bracken Bank, Woodside.

##### K9 Priority Route

Oakworth, Haworth

#### Ilkley Depot

##### ILK 1 Priority Route

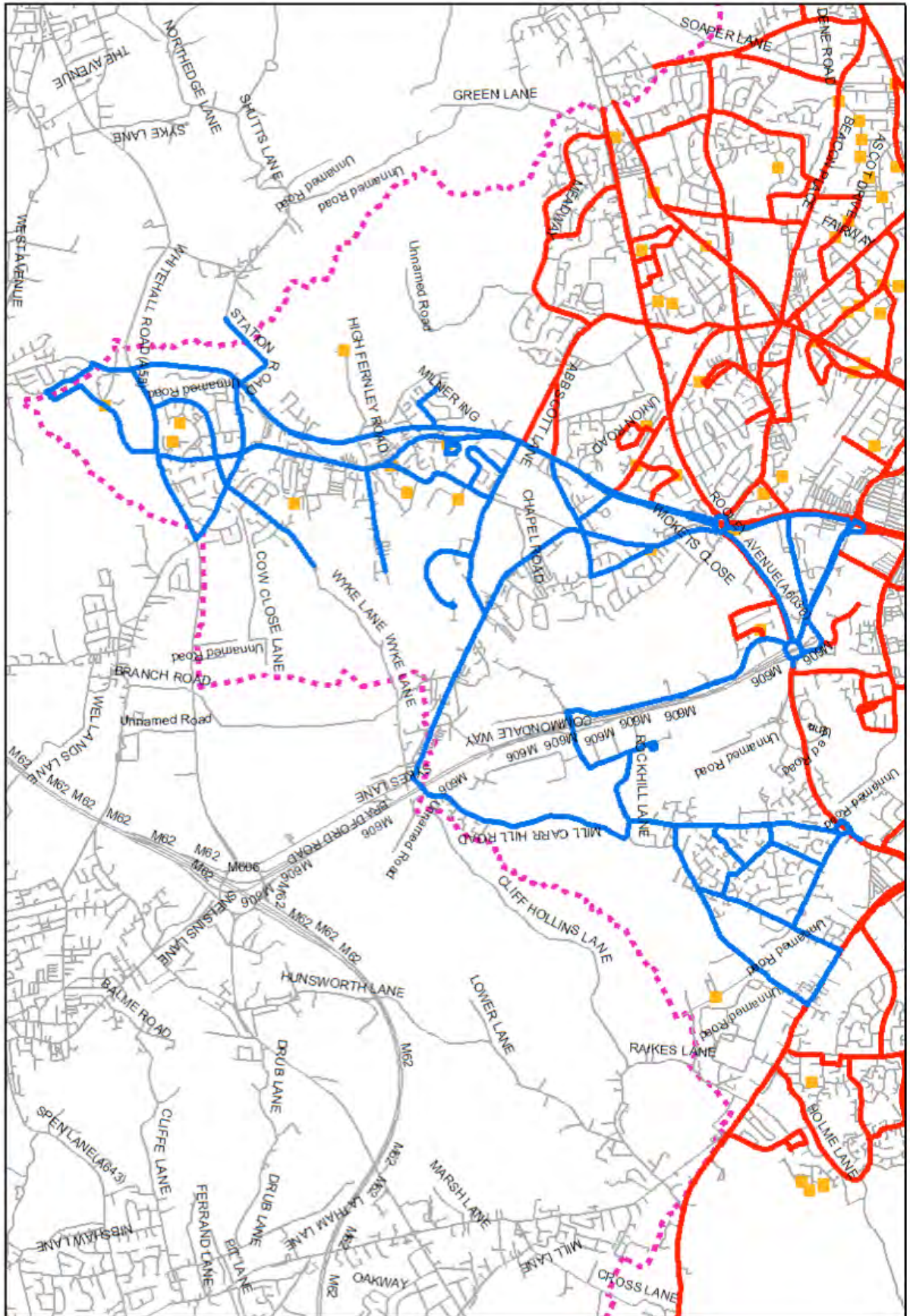
Ilkley, Addingham.

##### ILK 2 Priority Route

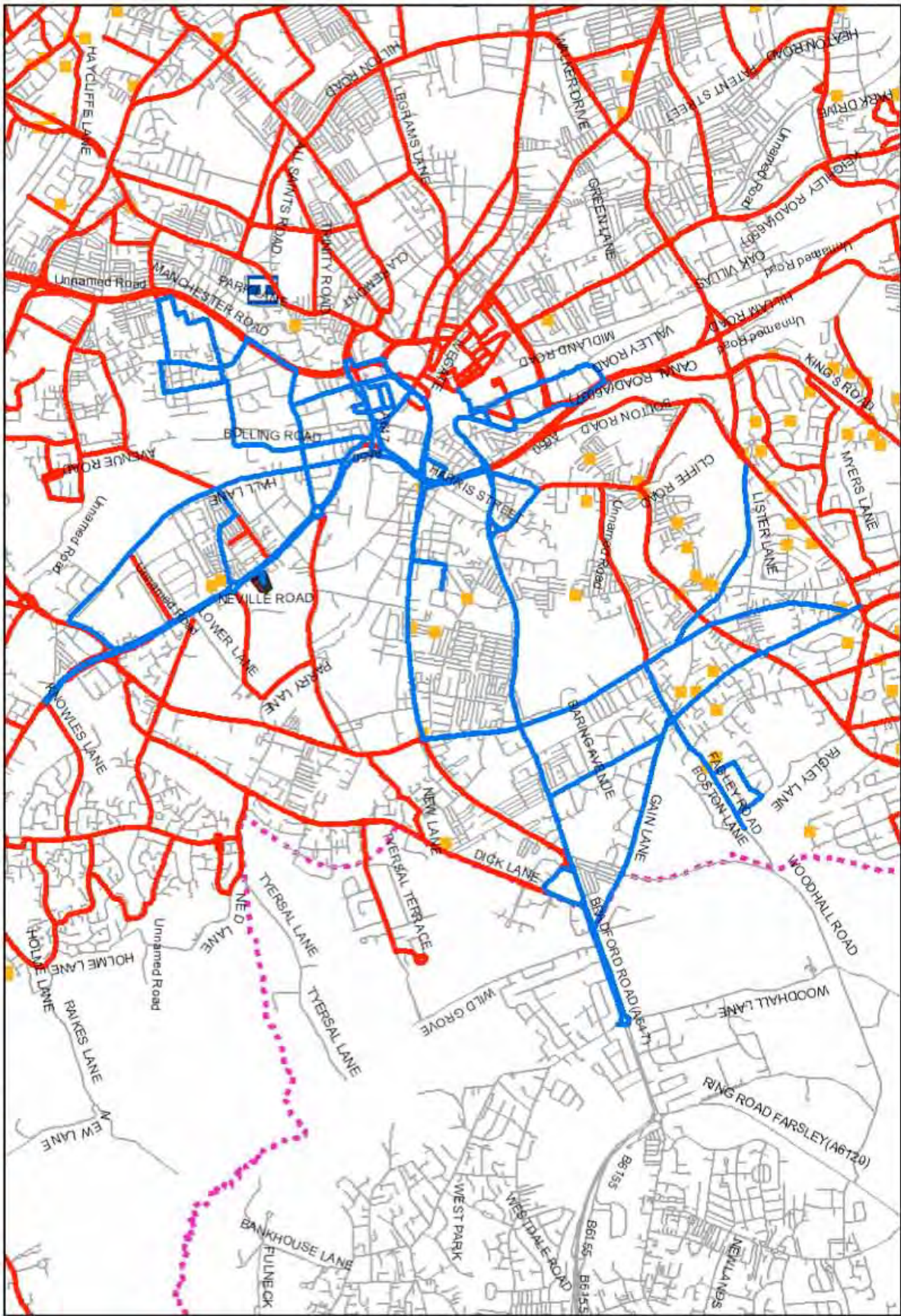
Burley, Menston.



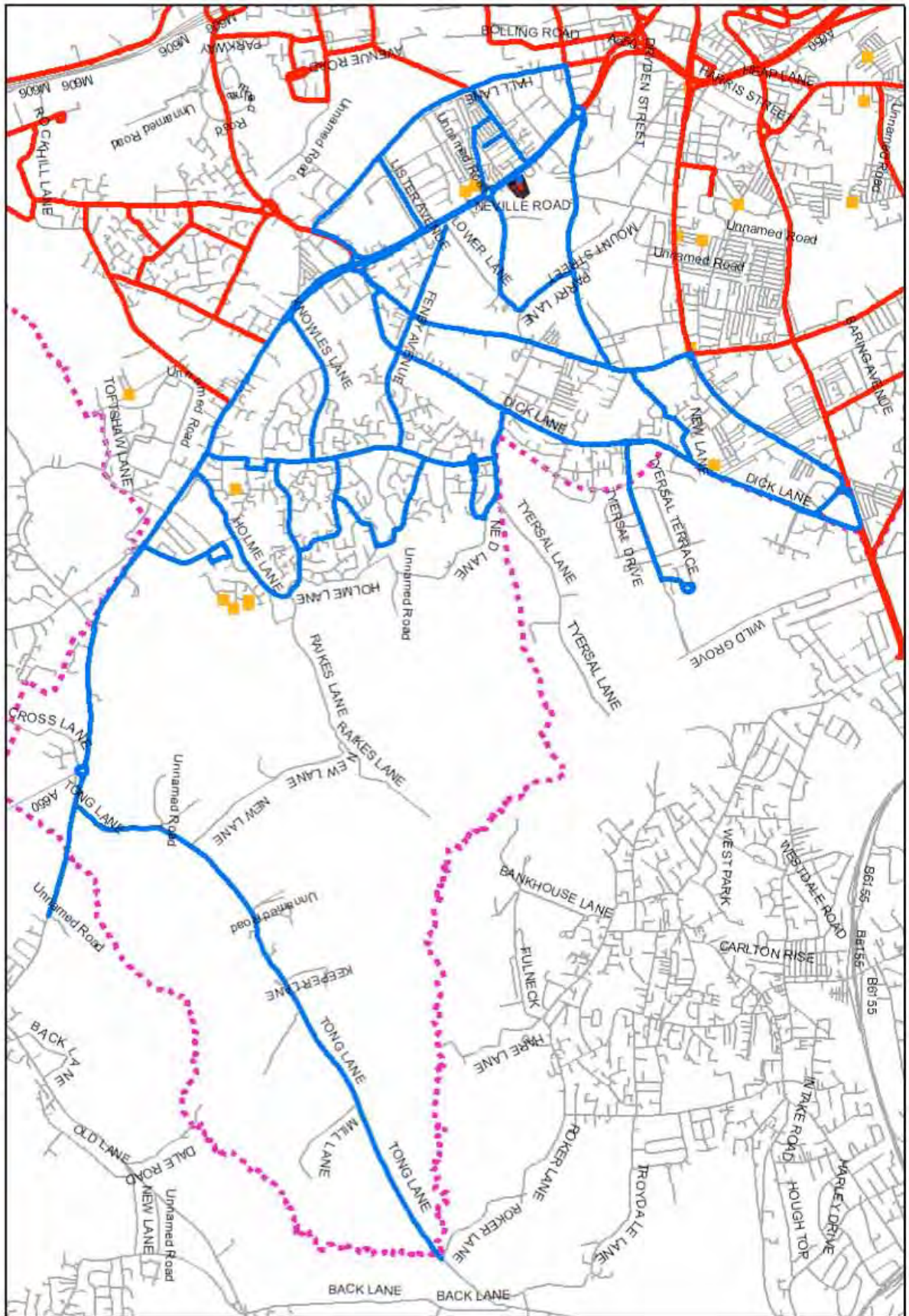




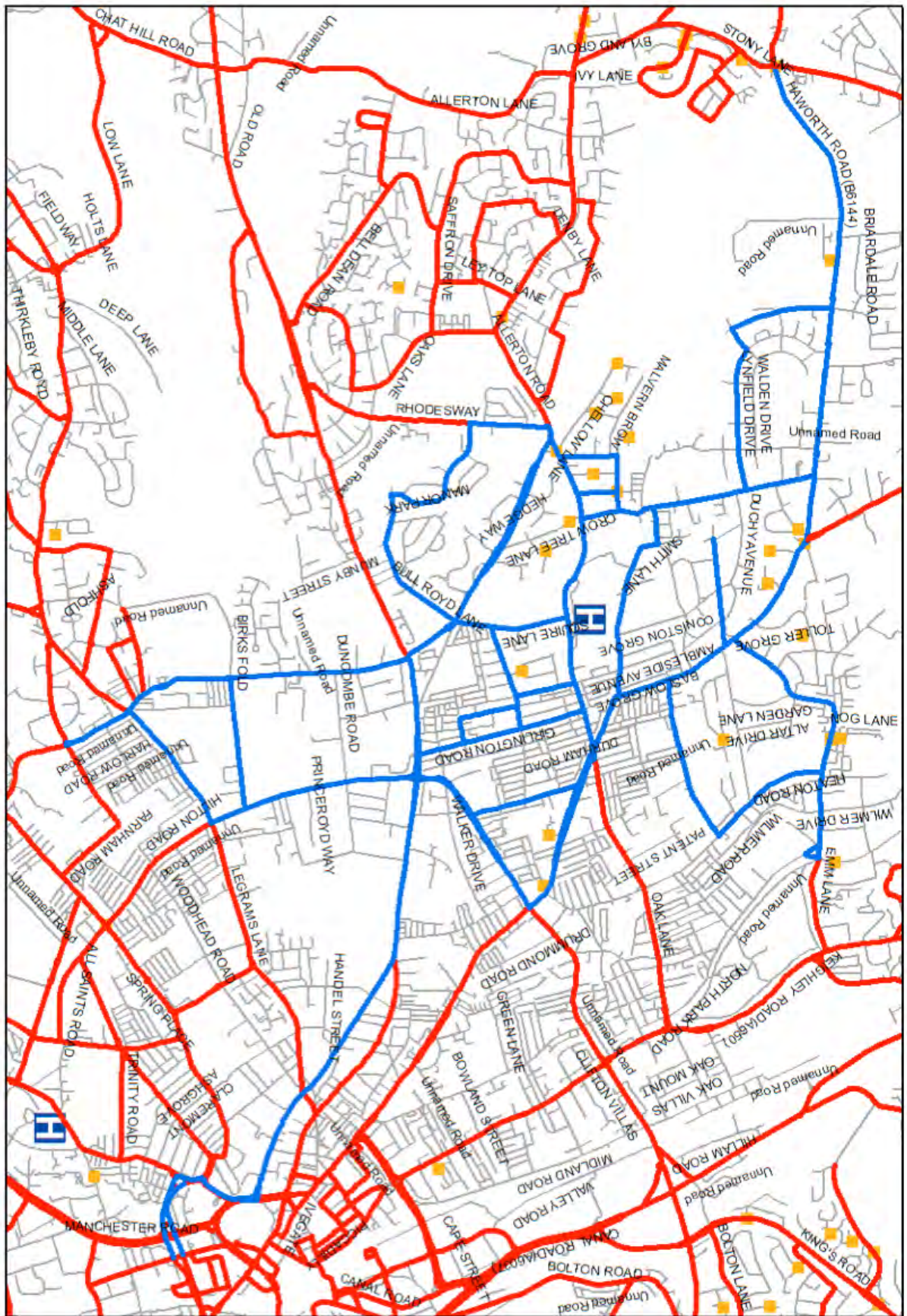
W2  
Grit Bins



W3  
Grit Bins



Grit Bins  
 W4



Grit Bins

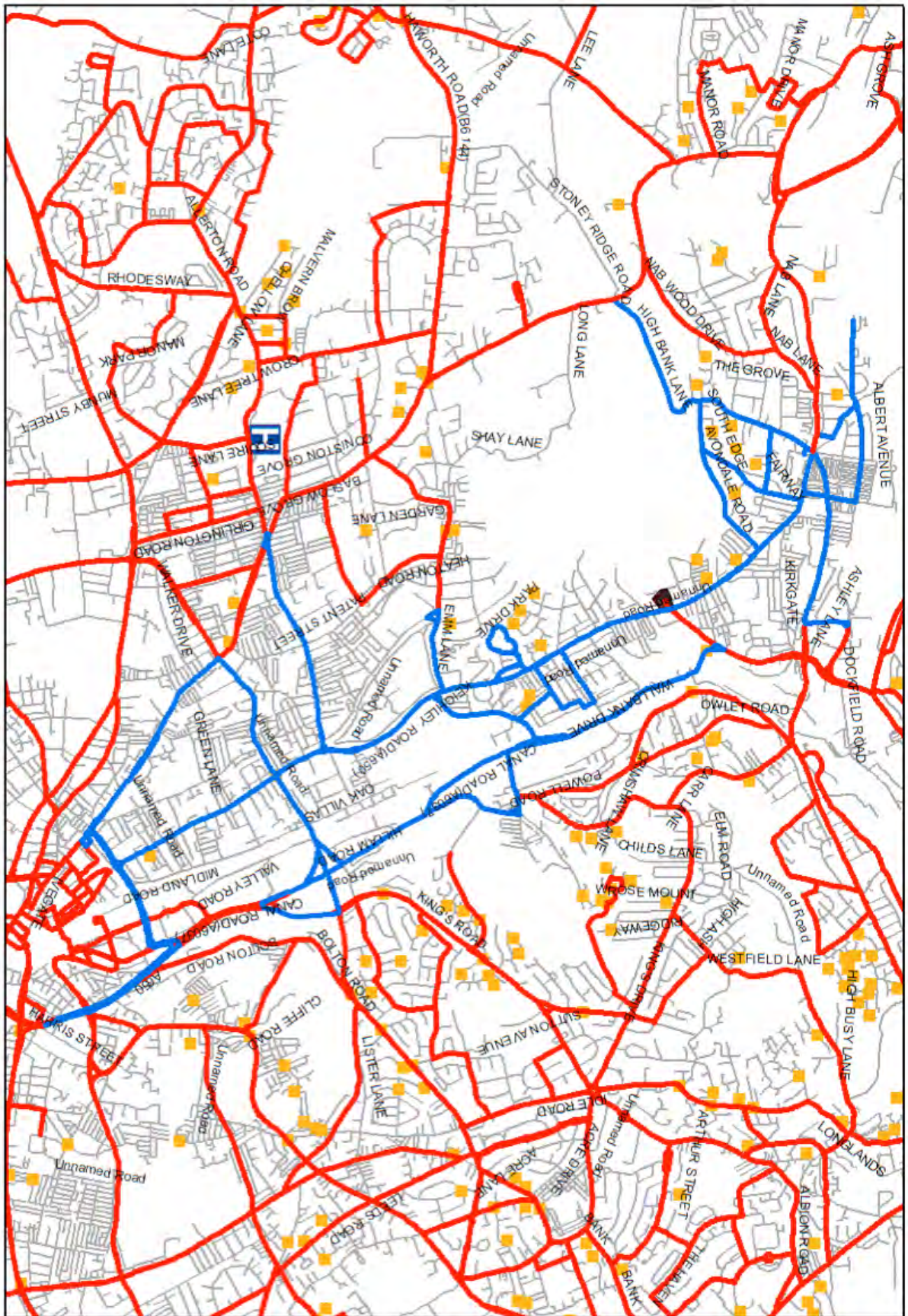
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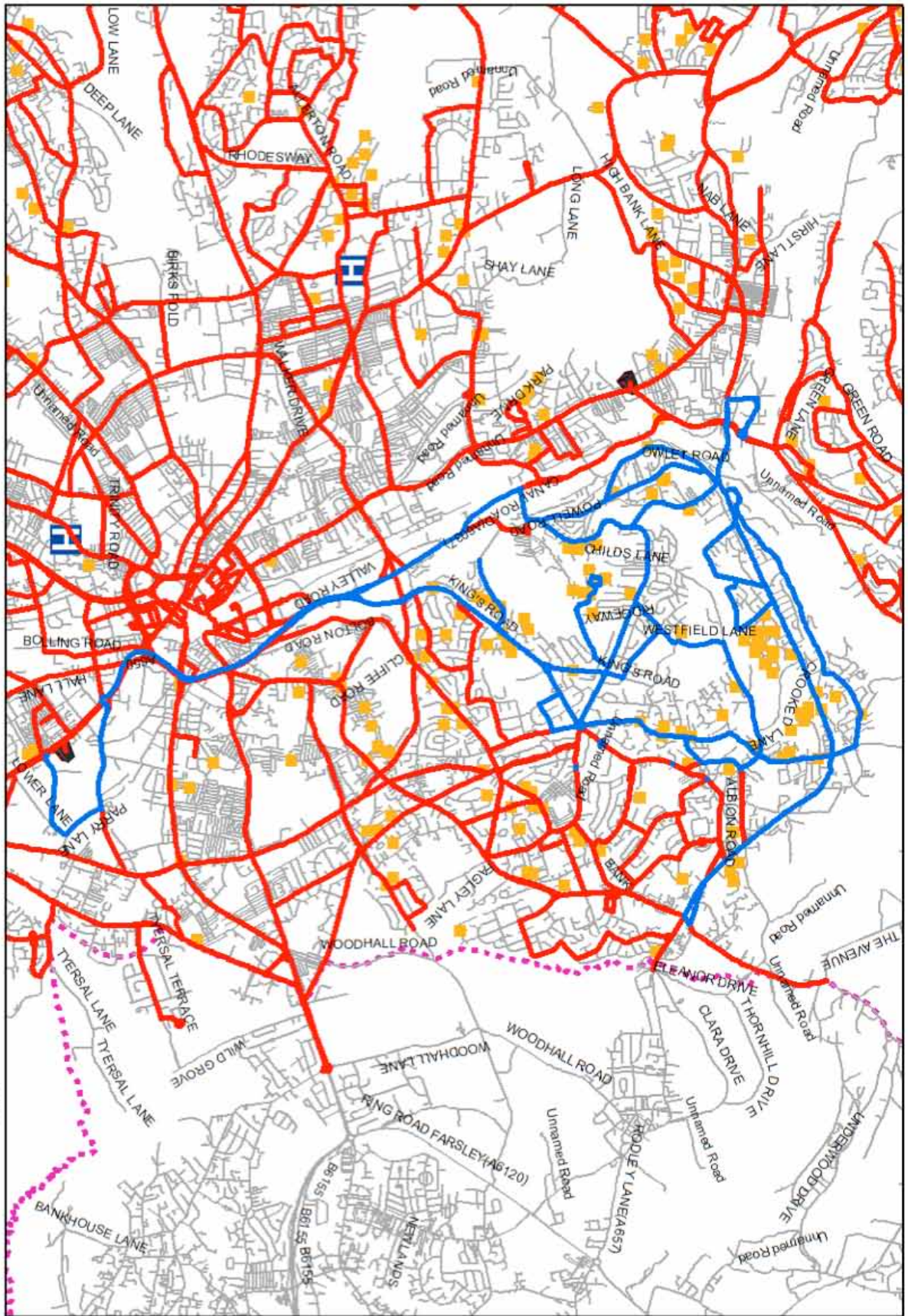




Grit Bins

W7





Grit Bins

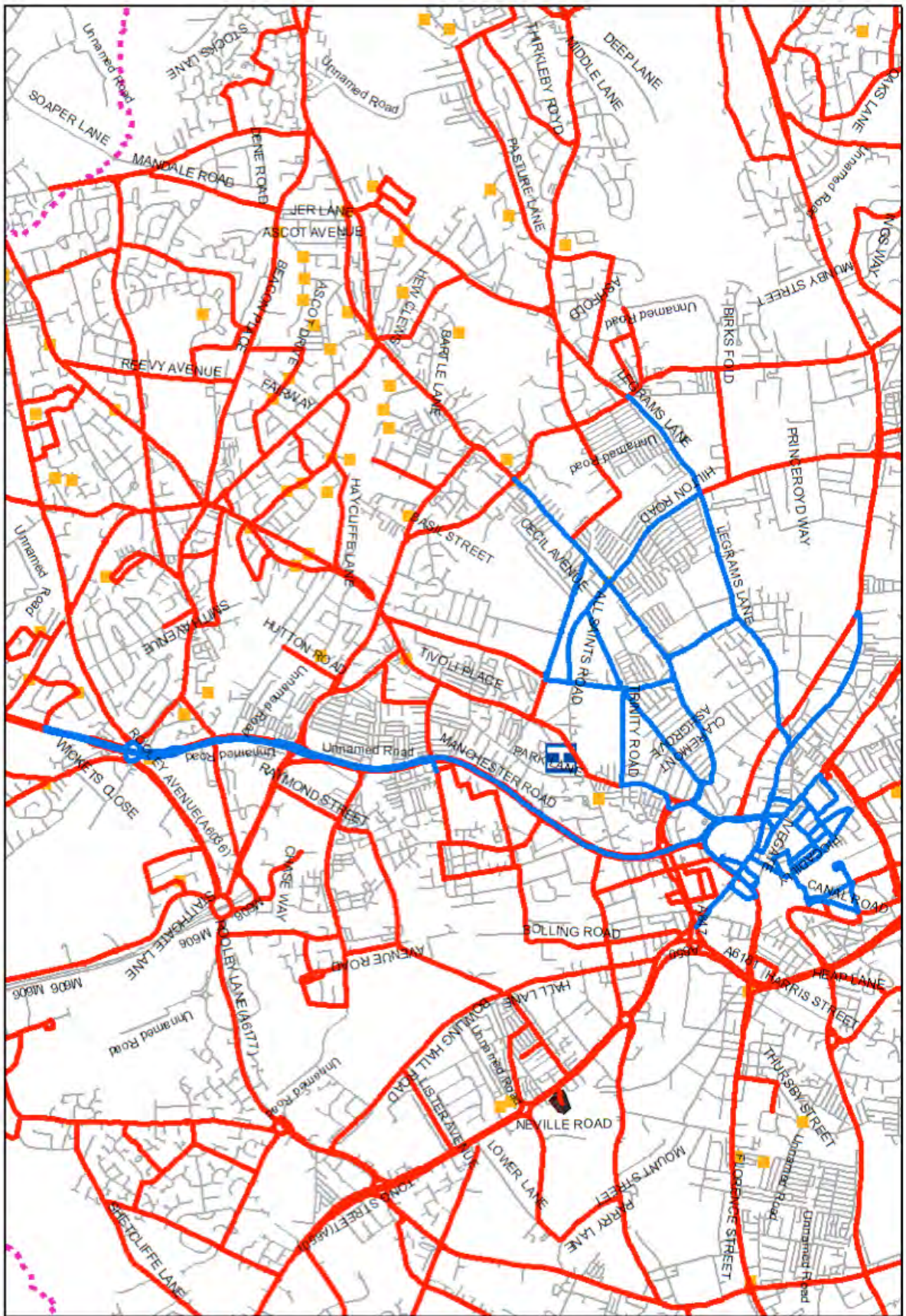


W8









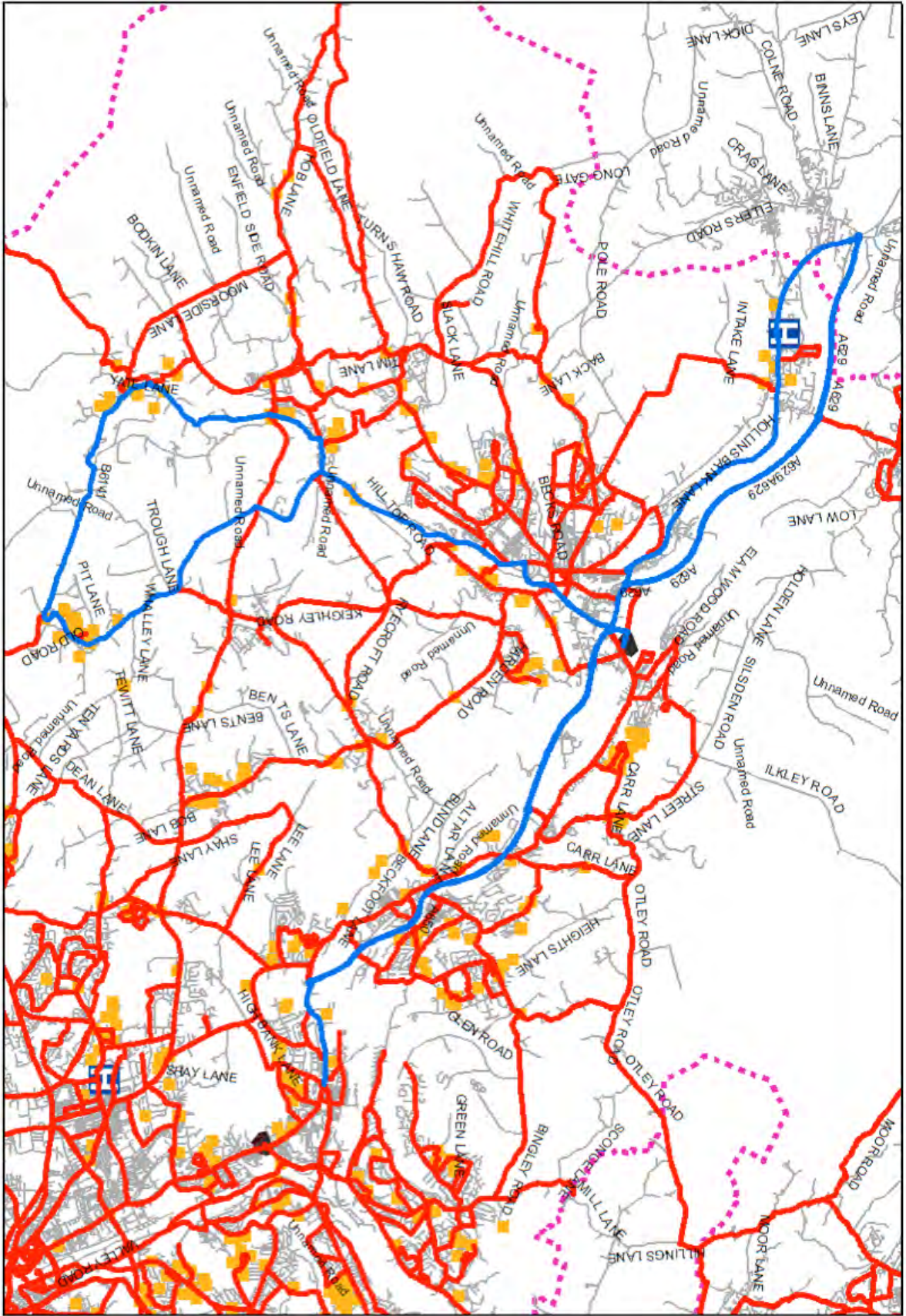
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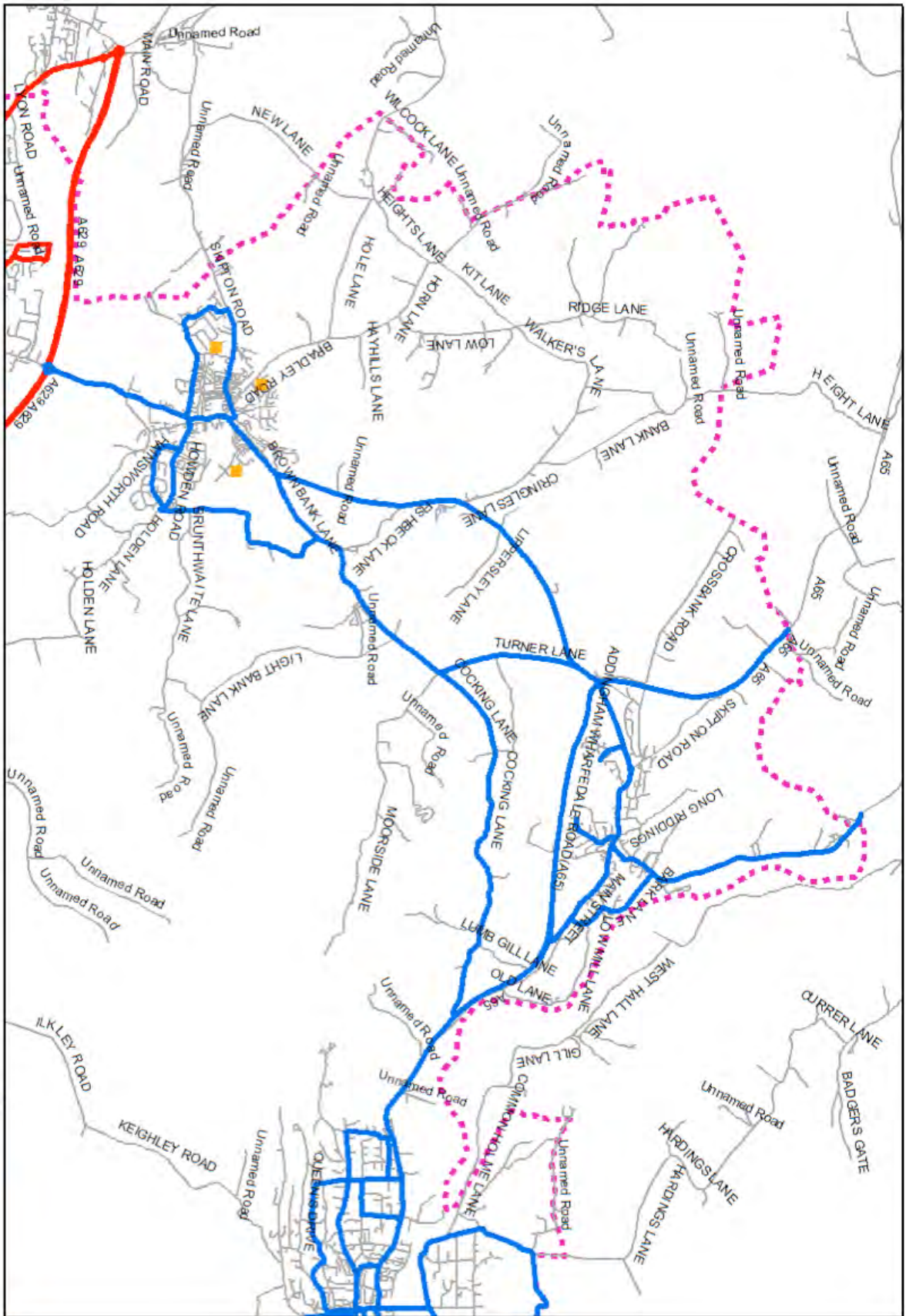
W10

Grit Bins



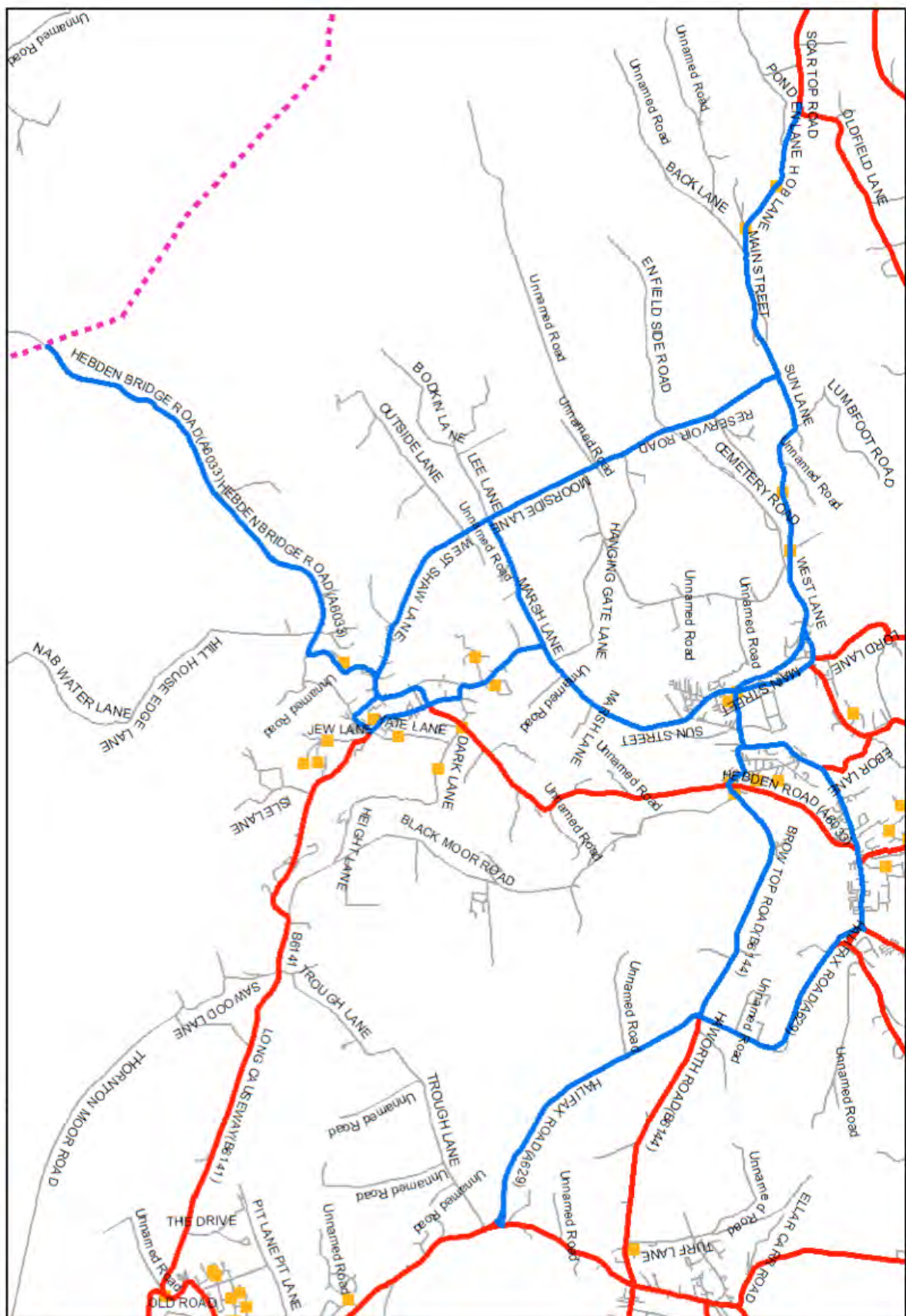
K1





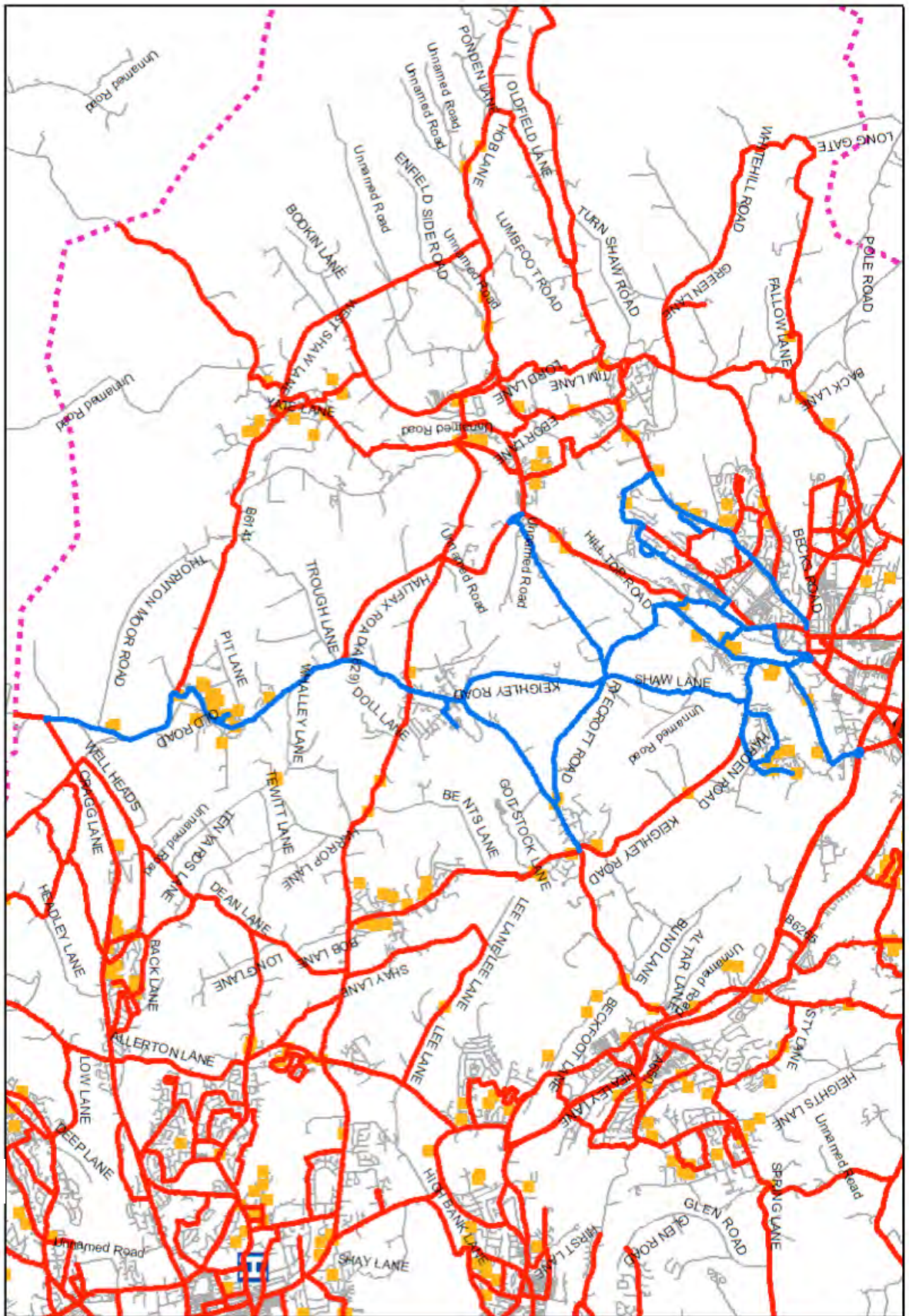
K2  
 Grit Bins

K3  
 Grit Bins

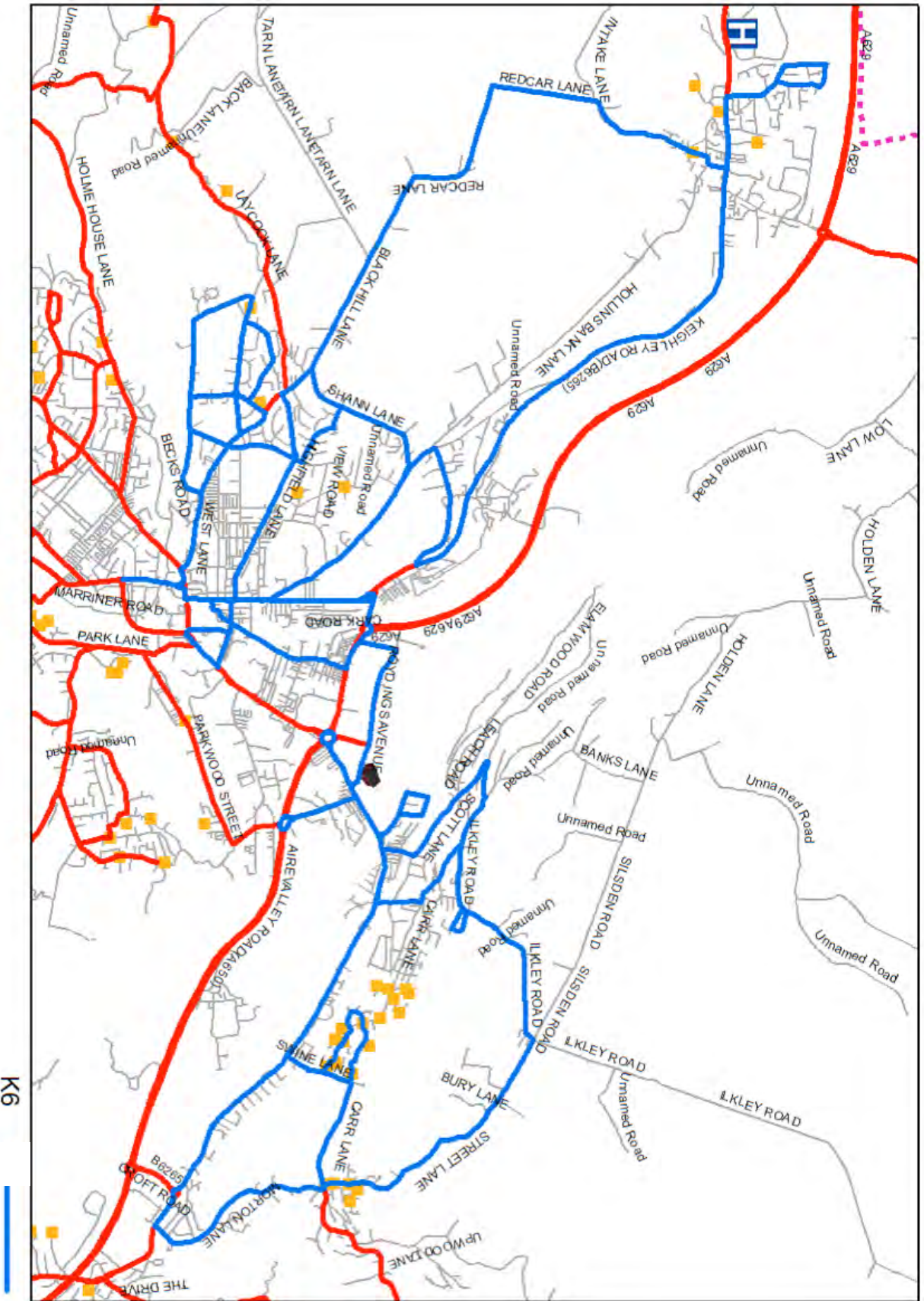




K5  
Grit Bins

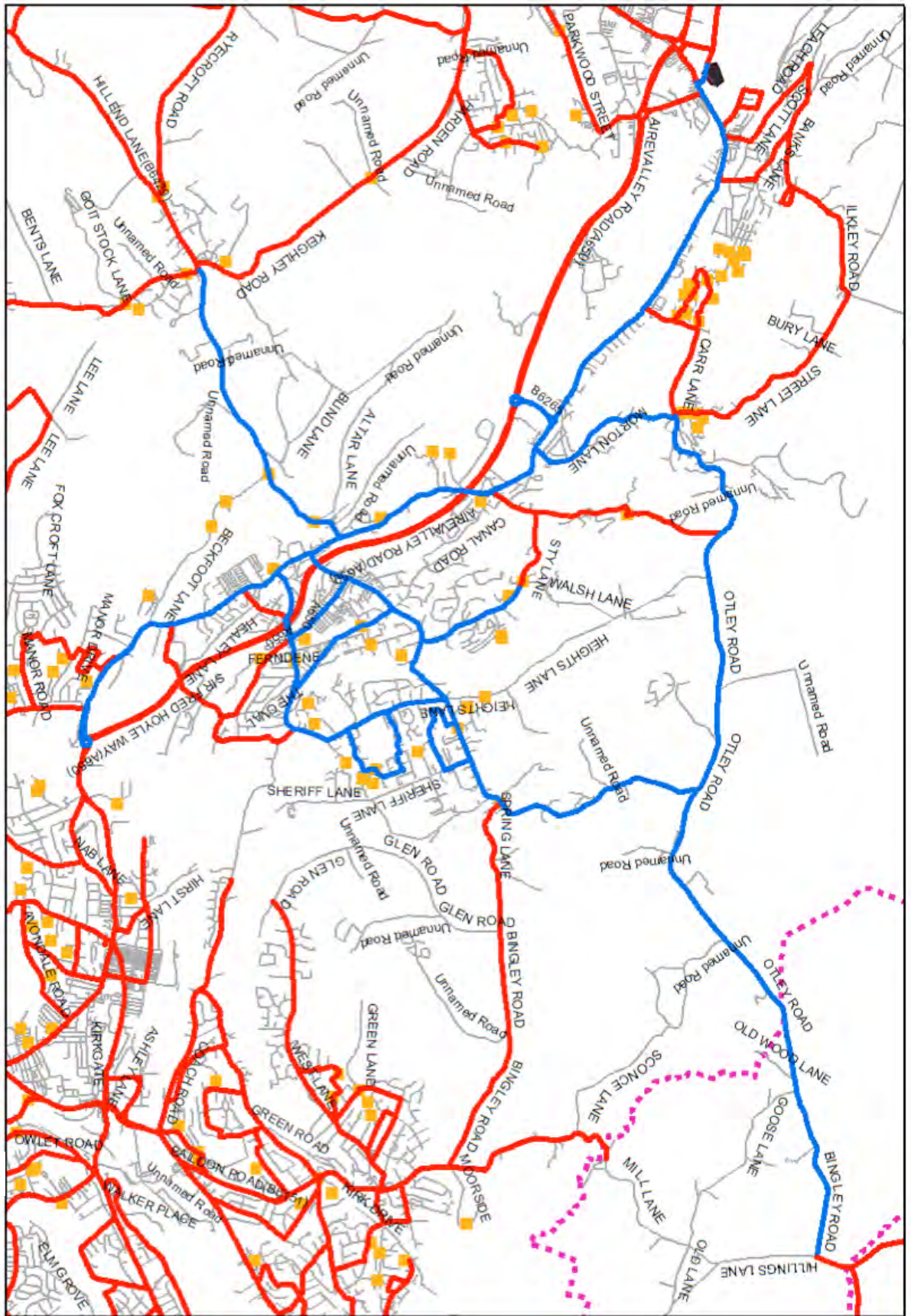


K6  
 Grit Bins









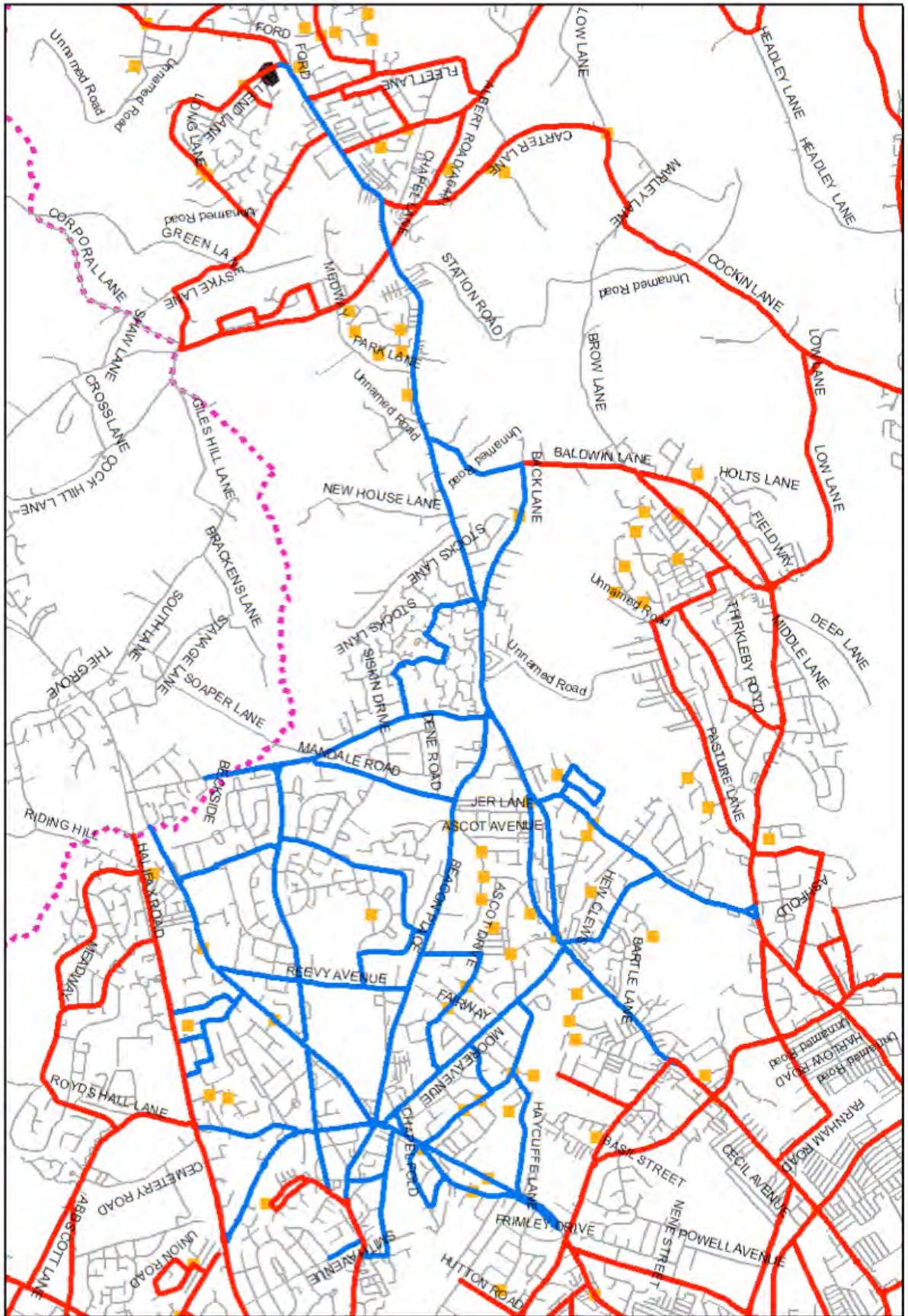
Grit Bins

K8



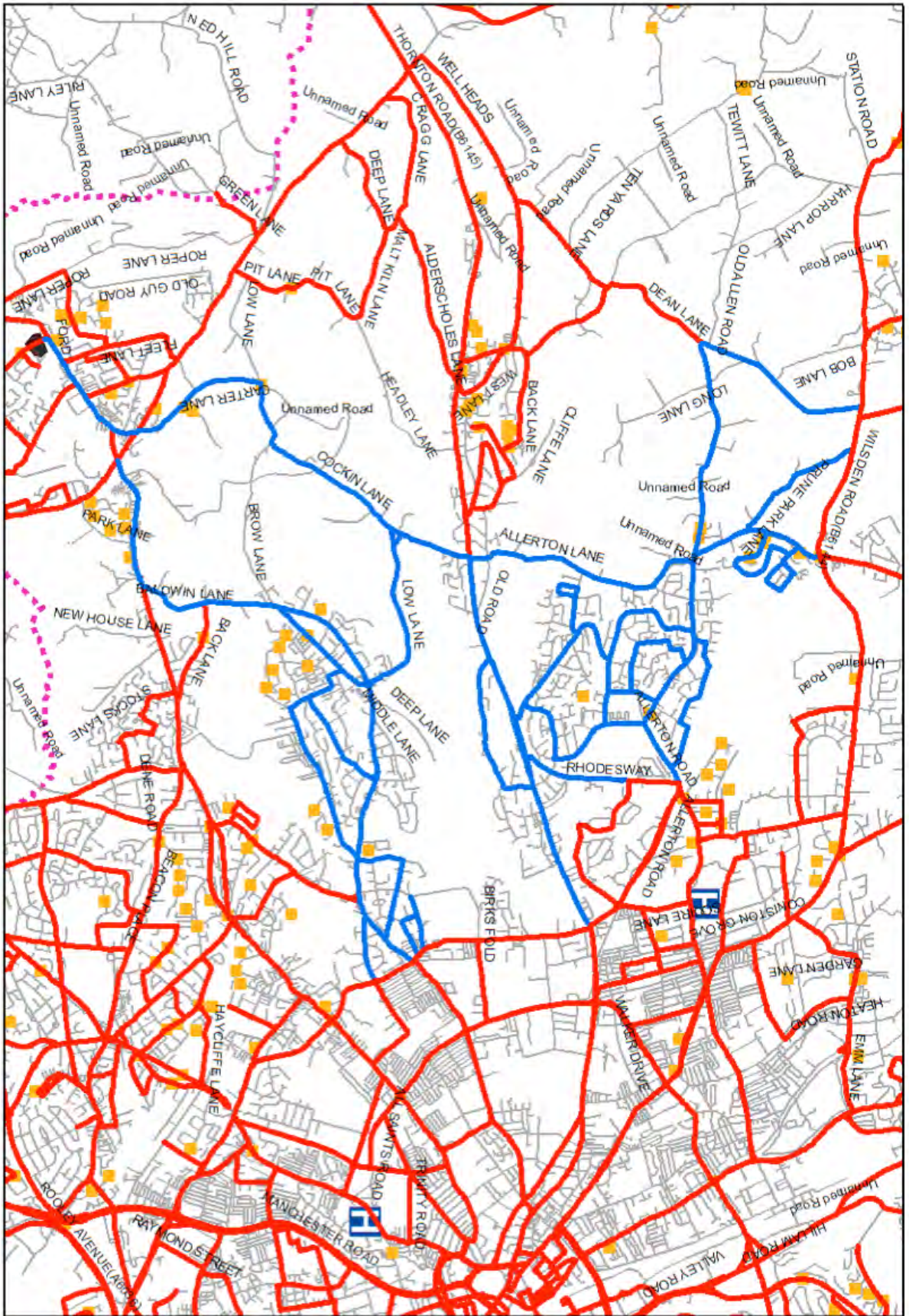






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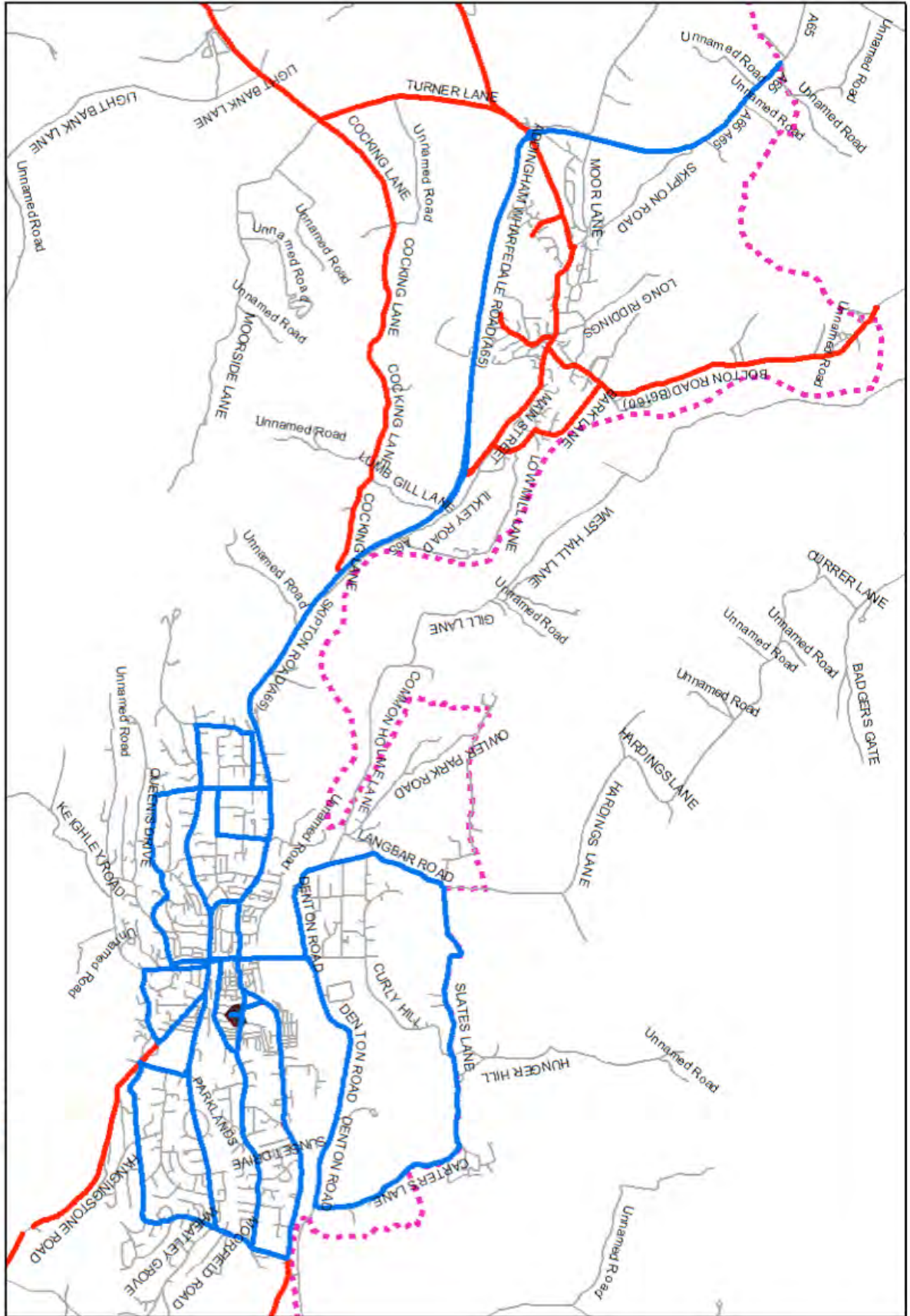
Q2

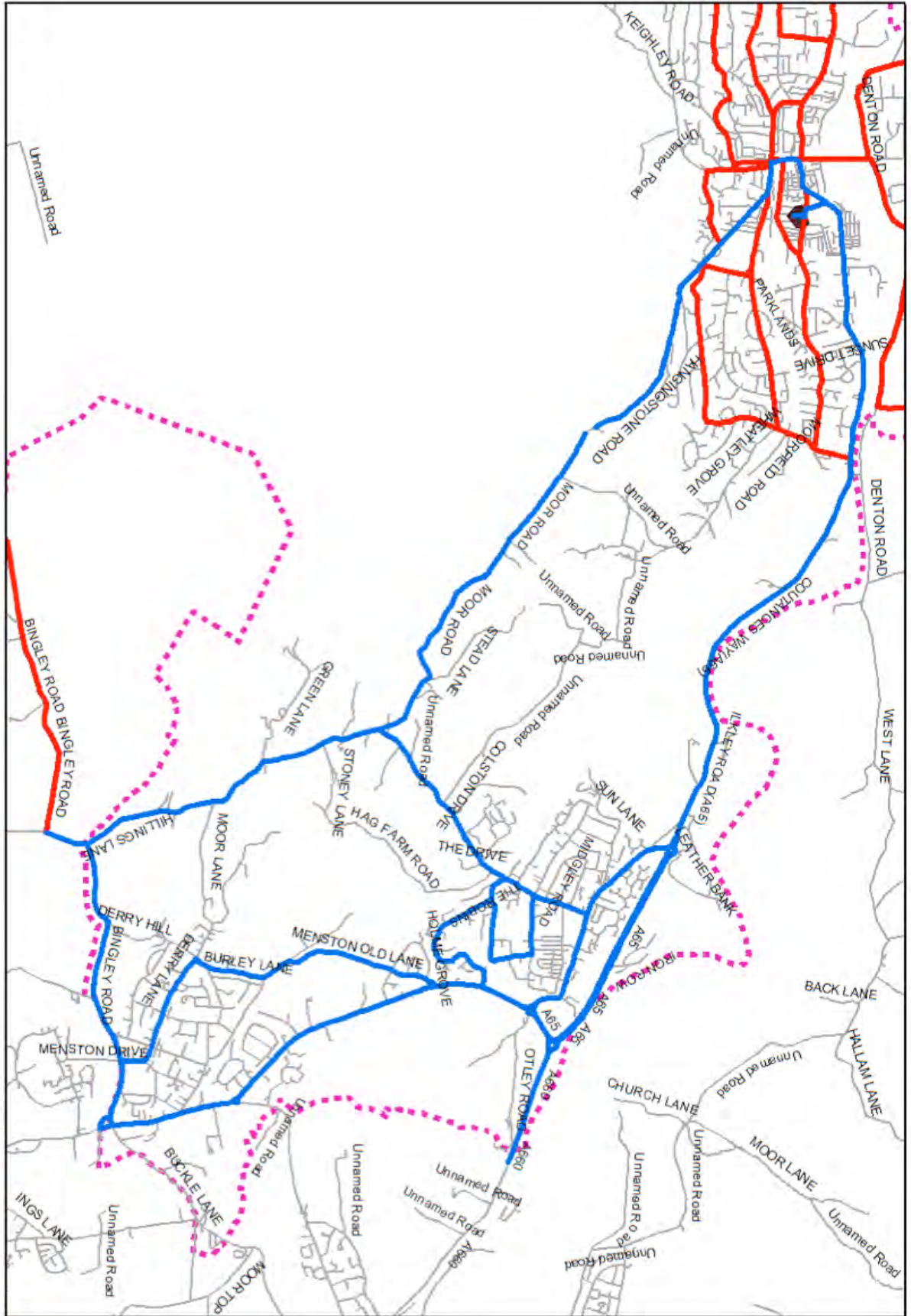


Grit Bins

Q3

ILK 1  
 Grit Bins





Grit Bins



ILK 2





# Appendix 4

## Assessment for Provision of Grit Bins

LOCATION OF SALT BIN		DATE OF ASSESSMENT	ASSESSED BY	
CHARACTERISTIC	SEVERITY	POINT	ASSESSED ACTUAL SCORE	
1) Carriageway Gradient	Greater than 1 in 10	75		
	1 in 10 to 1 in 30	40		
	Less than 1 in 30	NIL		
2) Altitude	Land over 700ft	75		
	Land over 500ft	50		
	Land between 250ft and 500ft	25		
3) Distance to next Grit Bin	Less than 200m	0		
	200m to 400m	15		
	More than 400m	20		
4) Close proximity to and falling towards and away from junctions	Heavily trafficked Road	80		
	Moderately trafficked Road	60		
	Lightly trafficked Road	30		
	Not falling	NIL		
5) Number of premises for which this is the only access	Over 100	30		
	50-100	20		
	20-50	10		
	0-20	NIL		
6) High Traffic / Strategic General location and High pedestrian movements	School/Community centres	25		
	Designated old persons Accommodation	25		
	Clinics/Doctors Surgeries	25		
7) Road Priority	On Priority 1 Main Road Gritting Route	-50		
	On Priority 2 Side Road Gritting Route	-50		
8) Winter Gritting Volunteer Scheme	Registered on Winter Gritting Volunteer Scheme	+50		
	Not registered on scheme	0		
		<b>TOTAL</b>	<b>This needs to be over 125 to pass</b>	

# Appendix 5

## Example of Daily Record Sheet

**WINTER MAINTENANCE**  
**DAILY GRITTING RECORD SHEET 2014 / 15**

**Priority 1 Grit**

Depot: WAKEFIELD RD      Conditions: \_\_\_\_\_

Date: \_\_\_\_\_      Assistant Manager: \_\_\_\_\_

Time: ..... To: .....

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

Route No	Fleet No or Vehicle Reg	Time Out	Time In	10mm	Route Completed Driver Signature	Comments
1						
2						
3						
4						
5						
6						
7						
Loading Shovel						

Also DAILY GRITTING SHEET FULL GRIT W/CRD HOLES

Page 1 of 1





October 2017