

Winter Service Plan 2011 / 2012



Highways Maintenance
Ring Road Middleton
Leeds
LS10 4AX

Internet Copy

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2.0 Introduction

2.1 Winter Service Plan

The City Council's aim is to provide an efficient winter service, which will permit the safe movement of traffic throughout the City and keep delays to a minimum.

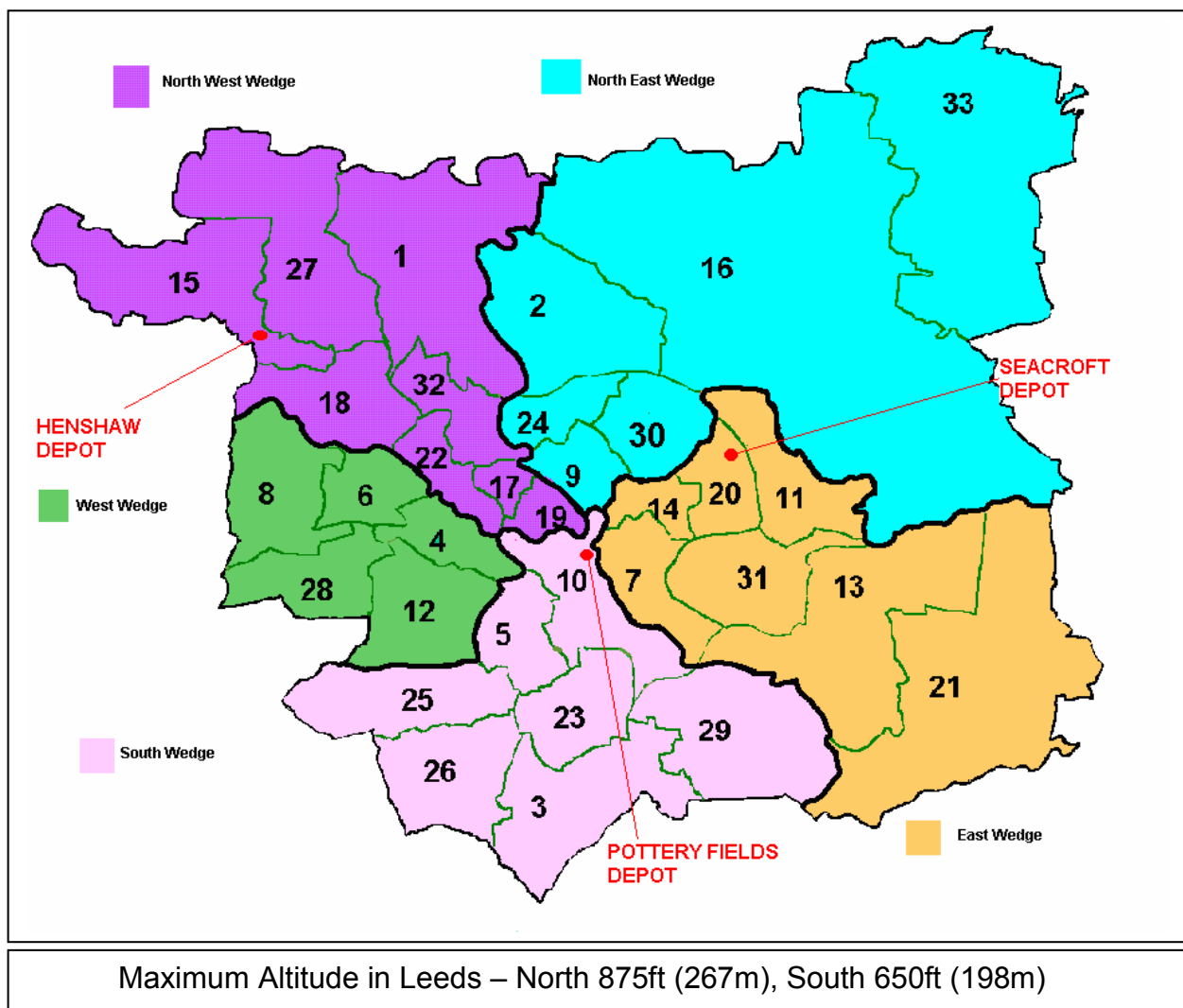
The aim of the Winter Service Plan is to set out how the winter maintenance service will be provided for Leeds. The plan is updated annually to account for changes in policy, procedure, personnel, materials and plant,

There is a legal duty on the Highway Authorities (The Highways Act 1980 Section 41.1A) to ensure, so far as reasonably practicable, that safe passage along the highway is not endangered by snow or ice. The emphasis is on "so far as reasonably practicable" and the court will expect this to be demonstrated by provision of a service which manages the risk within the financial constraints expected of a highway authority complying with the code of practice.

2.2 Area of Operation

The service is provided over the highway network within the Leeds Metropolitan District comprising of over approximately 3000 kilometres of adopted roads and footways (pavement).

This service is provided from three depots in the district namely, Seacroft, Pottery Fields, Henshaw and also at two strategic sites within the City.



3.0 Road Treatment

3.1 Introduction

The primary route network for precautionary salting, post salting and snow clearing has been established and the risk determined. Route plans and road lists for the routes are held at the operational depots and at Middleton.

3.2 Road Treatments

The following actions may be instructed by the Senior Duty Officer as appropriate to the forecast conditions.

- ❖ **Precautionary Salting** – Road salting is undertaken on all Primary Salting Network. Before ice or snow is likely to be present on the road surface. This treatment is carried out city wide.
- ❖ **Post Salting (inc snow Clearing)** - Road salting is undertaken when ice or snow is already present on the road surface and this treatment is also carried out city wide.
- ❖ **Partial Precautionary Salting** - May be ordered by the Senior Duty Officer and Includes:
 - Altitude** – Primary Routes over 100m (300ft) which can be instructed as appropriate to the conditions.
 - Cold Spots** – Those areas on the Primary Salting Network which are prone to freeze when conditions are close to freezing.
 - Wet Spots** - Those areas on the Primary Salting Network that are affected by water which fall into three main categories:
 - i. Run off from verges, usually permanent problem throughout winter.
 - ii. Standing water, at locations where highway drainage is poor, usually a draining problem for a few days after rain until water has drained or dispersed.
 - iii. Leaks from water supply pipes.

The Service Delivery Managers will be responsible for compiling the wet spot and cold spot gritting locations. The details provided by the group leader using Form WM6.

3.3 Response / Treatment Times

- ❖ **Response Time** – is the period between the decisions being taken to begin treatment and vehicles leaving the depot. The response time to a call out is 60 minutes.
- ❖ **Treatment Time** – is the period between vehicles commencing their route and the completion of treatment of all the primary route network. For precautionary salting the treatment time is 2 hours. For post salting and snow clearing the treatment time will be dependant upon the prevailing weather conditions.

3.4 Road Priorities

For Winter Gritting the Road Network has been divided into 3 categories.

Primary Salting Network (PSN)

- ❖ Classified Roads (A, B and C Roads).
- ❖ Urban Motorway
- ❖ Important commuter routes
- ❖ Routes to main Emergency Service establishments.
- ❖ The main bus routes and known trouble spots.

Details of the **PSN** are on the Leeds City Council website

Secondary Salting Network (SSN)

- ❖ Link roads to the Primary Salting Network.
- ❖ Spine roads into housing and industrial areas.
- ❖ Important rural routes.

Priority 3 Salting Network

- ❖ All remaining roads not treated as Priority 1's or 2's e.g.; cul-de-sacs etc.

3.5 Road Priority / Treatment Matrix

Treatment	Partial Salting	Precautionary Salting	Post Salting	Times
Primary Salting Network	At any time of the day	At any time of the day	At any time of the day	When ice is predicted the PSN will be pre-gritted. Where severe conditions such as snow or ice persist, resources will remain concentrated on the PSN
Secondary Salting Network	None	None	At any time of the day	The SSN will only be gritted if severe weather conditions are likely to persist for a significant period beyond the completion of the PSN
Priority 3 Salting Network	None	None	At any time of the day	On satisfactory completion of the PSN and SSN and if the severe weather conditions persist these will be treated on a reactive basis. It is therefore dependant upon resources and the changing weather conditions.

- **Salt**

The purchase and maintenance of sufficient stockpiles of salt is the responsibility of Highway Maintenance.

Salt stocks are held at the three highway maintenance depots, namely Seacroft, Pottery Fields and Henshaw. In addition a strategic stockpile of salt is held at Viaduct Road. When stock levels at the three depots need replenishing, salt from the strategic store is transferred.

Road Salting – Spread Rates

Salting Rates are based upon guidance contained within ‘Winter Service Guidance for Local Authority Practitioners’ and the table below indicates the most likely treatments to be undertaken. However actual rates of spread may vary upon the existing or forecast conditions.

Weather Condition	Treatment	
	Salting (g/m ²)	Ploughing
Frost or forecast frost (RST above -2°C)	15*	No
Frost or forecast frost (RST below -2°C or above -5°C)	20	No
Frost or forecast frost (RST below -5°C or above -10°C)	2 x 20	No
Light Snow forecast (< 10mm)	20	No
Medium / heavy snow forecast	2 x 20	No
Snow covering exceeding 25mm	20 (successive)	Yes

* Senior duty officer may reduce road salting spread rate to 10 g/m² where temperatures (RST) are expected to not fall below -2°C, and confidence of ice formation is low.

3.7 Snow Clearance

At times of snow on carriageways, ploughing will commence immediately there is a sufficient depth of snow, approximately 25mm. Once the primary route network has been dealt with satisfactorily other routes will be treated if snow remains and plant becomes available. Whenever slush begins to form on carriageways a concentrated effort must be made to remove such slush to ensure rutting does not occur.

3.8 Road Salting – Plant

The provision, maintenance and servicing of plant to provide the Winter Service is the responsibility of Highways Maintenance. The details of vehicles are listed below.

Depot	Pottery Fields	Seacroft	Henshaw	Total
Bulk Gritters *	5	3	3	11
De-Mount Gritters**	8	12	6	26
* Specific vehicle for salt spreading				37
** Interchangeable body for a multi purpose vehicle				

4.0 Footway and Paved Area Treatment

4.1 Introduction

Footways and paved areas have been categorised in accordance with Government guidelines. Route plans and footway lists have been established for Category 1a and 1 footways which are held at the operational depots and at Middleton.

Footways will only receive attention when snow or heavy frost is present and resources can be diverted to footway clearance without detriment to any ongoing carriageway winter operations.

4.2 Footway and Paved Area Priorities

The footways within Leeds have been categorised as follows:

Category No.	Category Name	Brief Description
1a	Prestige Walking Zone	Prestige areas with exceptionally high usage in the City Centre e.g. Pedestrian Precinct
1	Primary Walking Route	Busy Town / District shopping and business areas e.g. Pudsey, Morley, Rothwell etc. Main Pedestrian routes linking different transport types such as rail and bus.
2	Secondary Walking Route	Medium usage routes through local areas. Local shopping centres, large schools and industrial areas e.g. Main Street, Garforth
3	Link Footway	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footway	Low usage estate roads and cul-de-sacs.

4.3 Footway and Paved Areas Priority / Treatment Matrix

Treatment Category	Precautionary Salting	Post Salting	Times
1a	At any time of the day	At any time of the day	When overnight frost conditions are forecast for the City Center
1 & 2	No Treatment	At any time of the day	When temperatures are below zero and severe weather conditions are likely to persist for a significant period beyond the completion of category 1a footways
3	No Treatment	Reactive Treatment	Not normally undertaken other than in response to circumstances
4	No Treatment	Reactive Treatment	Not normally undertaken other than in response to circumstances

4.4 Footway and Paved Area Salting – Target Spread Rates

Priority Footways	Salting (g/m ²)	Ploughing
Ice present or snow <25mm deep	10	No
Snow >25 deep	Clear Snow 10	No

4.5 Snow Clearance

At times of snow on footways, clearance will commence when there is sufficient depth of snow, approximately 25mm.

4.6 Grit Bins

Grit bins will only be provided in accordance with the criteria set out in the Salt Bin Request Assessment Form which includes gradient, usage, amenities, topography and Shelter index.

The approved locations for grit bins are available on the Leeds City Council website. These bins are permanently sited and are replenished as necessary. Where severe conditions such as snow and ice persists, resources will remain concentrated on the PSN and grit bins will only be replenished on a reactive basis dependant on resources.



4.7 Grit Bins for Other Departments

Highways Maintenance supplies and replenishes grit bins on behalf of other Departments on receipt of an official order, which should be received prior to the commencement of the winter season

5.0 Liaison With Outside Organisations

5.1 Treatment

Winter service operations within the Leeds Metropolitan District will be carried out by Highways Maintenance.

In times of severe weather, operatives from other City Council Departments or private contractors may be employed by Highway Maintenance, as sub-contractors on snow clearing and salting.

5.2 Service Responsibilities for Motorways

The M1, M62 and M621 are the responsibility of the Highways Agency (DfT) Agents Aone+, Dewsbury Road, Tingley.

5.3 Maintenance Responsibilities for other roads

The A62 Trunk Road is the responsibility of Aone+.

The A1-M1 Link is the responsibility of Connect M1-A1 Ltd based at Bramham Maintenance Compound, Spen Common Lane. Winter Maintenance will be undertaken by Balfour Beatty Major Civil Engineering (BBMCE) on behalf of Connect.

All other adopted highways are the responsibility of Leeds City Council.

5.4 Private Agreements and Instructions

No arrangements must be made whereby instructions are given to, or agreement indicated with, any private individual regarding the salting of a public highway.

5.5 Salting Arrangements with Adjacent Authorities

Certain roads are salted by Leeds on behalf of adjacent Authorities and other roads are salted by adjacent Authorities on behalf of Leeds. See below.

5.5.1 Roads within Leeds salted by:

- ❖ **Bradford** – A6038 Hollins Hill, Guiseley from Bradford boundary to Park Road.
Tyersal Road to Tyersal Crescent, Bus Route BD4

- ❖ **North Yorkshire** – A61 Harrogate Road from Harewood Bridge to A659 Otley Road.
A658 Main Street – County Boundary to Junction A659 (Pool Bridge)
B1224 County Boundary Bickerton – roundabout York Rd Link to A1M
B6451 Farnley Lane - from County to Riverside Park
C234 Newell Carr Road – from County Boundary to Northern junction
The Crescent, Otley

❖ **Wakefield** - Lingwell Gate Lane – from new district boundary to Gascoigne Road.

❖ **Aone+** - Full length of southbound exit slip (Dow Street) to its merge point with the Hunslet Distributor.

The southern section of the Hunslet Distributor between Moor Road (Northbound) and Moor Road (Southbound).

5.5.2 Roads salted by Leeds for:

❖ **Bradford** - A6039 Bradford, Otley - Bradford Boundary to A65 (Fox PH RBT)
A650 (Drighlington Bypass) to the east of Tong Street RBT

❖ **Wakefield** - C530 Batley Road – Wakefield Boundary to Brandy Carr Road
A639 Barnsdale Road – Wakefield Boundary to A6032 Methley Road
A656 Lock Lane – Wakefield Boundary to Aire St / Bridge RBT
Newmarket Lane – New District Boundary to A642

❖ **North Yorkshire**- A168 Hudson Way - Kirk Deighton RBT to County Boundary
Deighton Road – County Boundary to Kirk Deighton RBT
Racecourse Approach – Kirk Deighton Interchange to County Boundary
Springs Lane - B1224 to County Boundary
Continuation of Main Street Aberford to A64 Bramham Crossroads
A64 York Road from County Boundary to A64 Bramham Crossroads
Spennithorne Lane County Boundary to A64 Bramham Crossroads

5.6 Road Closures

Should temporary closure of important roads be necessary due to snow conditions to facilitate clearing operations and where alternative routes are available and where such closure will prevent complete blockages, then the standby emergency closure procedures should be followed.

5.7 Liaison with Adjoining Authorities

Liaison on conditions in adjoining Authorities will be maintained as necessary.

5.8 Liaison with External Organisations

5.8.1 Media Communications

- a). Communications with local radio, television stations and press releases to newspapers etc., will generally be dealt with by the Head of Highway Services in conjunction with the Highways Maintenance Manager.
- b). During periods of snow fall or extensive ice both the Highways Agency (DfT) and the media are particularly interested in road conditions. In such conditions depots must report to the Highways Maintenance Manager by 09:00hrs each morning, giving details of:
 - i). Trunk Roads – whether blocked, covered in snow / ice but passable, number of lanes open in each direction, or whether full width is completely black.
 - ii). All Other Roads – details of blockages, closures, roads giving difficulty etc.

5.8.2 Internet Communications

On receipt of the weather forecast our intended action will be tweeted on a daily basis, Monday to Friday.

6.0 Weather Forecast

6.1 Introduction

The City Council manages winter service operations by utilising the Vaisala Ltd Computerised Ice Prediction System. Approximately 1300km of highway within Leeds District have been thermally mapped and this information is incorporated in the Ice Prediction system.

6.2 Service

A contract for the provision of weather forecast information has been placed with MeteoGroup.

A Consultancy Service is available from MeteoGroup and calls can be made any time for advice and information and should be used.

6.3 Period of Service:-

- ❖ Adverse Weather Summary Forecast – 03 October 2011 to 17 October 2011
09 April 2012 to 22 April 2012
- ❖ Full Road Weather Forecast - 17 October 2011 to 08 April 2012

All dates are inclusive and include weekends and public holidays

6.4 Adverse Weather Summary Forecast

A daily hazard forecast summary will be provided by 13:00hrs GMT and updates issued as and when necessary.

6.5 Full Road Weather Forecast

During the period when full forecasts are issued the services provided are:

- ❖ 24hr forecast (13:00hrs)
- ❖ 3-5 days forecast (13:00hrs)
- ❖ Evening update forecast (19:00hrs)
- ❖ Morning Summary (6:30hrs) together with an updated forecast for the next 24hrs
- ❖ Forecast updates as required
- ❖ 24hr consultancy
- ❖ 24hr system monitoring service

6.6 Annual Post Season Report

The forecast service provider shall provide a Post Season Report indicating for the two forecast sites the following information:-

- ❖ A graph of forecast versus observed minimum road surface temperature.
- ❖ A chart showing:-

No frost forecast	–	Frost occurred
Frost forecast	-	No frost occurred
Frost forecast	-	Frost occurred
No frost forecast	-	No frost occurred

For this purpose a “frost” is defined as when the road surface temperature fall to zero Degrees Celsius or below.

7.0 Ice Prediction System

7.1 Introduction

An ice prediction system is in operation and the weather forecast will make use of this computer hardware and software for transmission of information.

7.2 Forecast Outstations

They are situated at the following locations:-

- ❖ A64 York Road, Whinmoor
- ❖ A658 Yeadon



Information from the outstations is interrogated by the central computer bureau at the offices of Vaisala in Birmingham. The information available covers not only the weather forecast, but gives graphs and text showing predicted and actual temperatures, road conditions etc.... A thermal map of the current Primary Salting Network is also shown.

7.3 Resilience

If the internet server is down and the information cannot be accessed via the internet it can be received via dial up modem, which has locally been installed on two laptops (Iceview).