

# **CABINET – 19TH OCTOBER 2016**

# SUBJECT: WINTER SERVICE PLAN 2016-17

# REPORT BY: ACTING DIRECTOR OF CORPORATE SERVICES AND SECTION 151 OFFICER

- 1.1 A report was presented to the Regeneration and Environment Scrutiny Committee on 28th June 2016, which outlined the background and content of the Council's Winter Service Plan and explained the process by which it is reviewed on an annual basis. The report sought Members' comments on the Winter Service Plan's process and key areas, prior to the final report being presented to Cabinet for approval. A copy of the current Winter Service Plan for 2016-17 (post-consultation) is now appended for Members' consideration.
- 1.2 At the Regeneration and Environment Scrutiny Committee, it was explained that the Winter Service Plan has existed since the inception of CCBC and sets out the Council's responsibilities for maintaining the highway infrastructure network during the winter maintenance period. The Plan is annually reviewed by Members and Officers, with a four-week period dedicated to this process. Feedback and amendments are incorporated into the final version, which is then circulated to appropriate parties and placed on the Council's website in October. Members were advised that it was envisaged this process would continue for the 2016-2017 winter season after the Cabinet endorsement process had been completed.
- 1.3 At that time, a number of sections were highlighted as requiring review by Scrutiny Members as they cover key issues within the Winter Service Plan, these being 'Gritting Route and Road Hierarchy', 'Salt Stocks and Location', 'Weather Forecasting' and 'Salt Bin Request Process'. During the course of the ensuing debate, Officers responded to general queries in respect of gritting routes and operational locations, and outlined weather forecasting measures that are utilised in making the appropriate decisions for a freezing or weather event. Members were advised of the communication processes between the Council and other agencies (such as funeral directors and farmers) to facilitate the gritting of essential routes during periods of inclement weather. Discussion also took place regarding requests for the supply and refilling of grit bins within the county borough.
- 1.4 Following consideration and discussion of the report, the Regeneration and Environment Scrutiny Committee unanimously recommended to Cabinet that for the reasons contained therein, the draft Winter Service Plan be endorsed for consultation.
- 1.5 Members are asked to consider the post consultation Winter Service Plan for 2016-17 as appended to the report.
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#### Appendices:

- Appendix 1 Post Consultation Winter Service Plan 2016-17
- Appendix 2 Report to Regeneration and Environment Scrutiny Committee on 28th June 2016 Agenda Item 11 – Winter Service Plan Endorsement



# WINTER SERVICE PLAN 2016-17





SERVICE ORGANISATION
PRECAUTIONARY SALTING ROUTES
SNOW PLAN

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# <u>CAERPHILLY COUNTY BOROUGH COUNCIL</u> <u>ENGINEERING SERVICES DIVISION - HIGHWAY OPERATIONS GROUP</u> <u>WINTER SERVICE PLAN</u>

# PREAMBLE

This plan forms part of the Caerphilly County Borough Council's (CCBC) suite of Highways Operations Management Documents, explaining how the Council delivers its services for its biggest asset, namely its Highway Network. This Plan should be read as a Stand-alone document, but will refer to other documents related to this Service area.

This document explains the County Borough Council's responsibilities, strategy/policy and operational procedures in respect to the management and maintenance of the Caerphilly County Borough highway infrastructure network during the defined winter maintenance period, covering precautionary salting operations, clearance of ice and snow along with response to emergency flooding. Section 41 of The Highways Act 1980 places a duty on Local Authorities "to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice."

This document is to provide guidance to elected councillors, members of the public and members of staff on operational procedures and contact points during the winter service period.

The policy has taken account the recent review commissioned by Transport Ministers "Winter Resilience Review – An independent review of the Resilience of Englands Transport System" which made key recommendations in its report following the 2009/2010 severe winter. There was another severe winter in 2010/2011 and further refinements have been made to improve the way in which the service is able to react to the needs of the public during such events.

Revised winter service guidance, contained in Appendix H of Well Maintained Highways, was issued in September 2013. This guidance is considerably more detailed and onerous to implement and adhere to than the previous update in 2011. Following comments and concerns by many Winter Service providers nationally, a review is currently being undertaken by the National Winter Service Research Group (NWSRG), who developed the guidance. This is likely to result in a revision of the document. (To date, no further guidance has been issued) As such, together with all other Welsh Authorities Caerphilly County Borough Council do not intend to fully adopt this guidance until this review is complete. The Authority will contribute to the review via feedback submitted through the Welsh County Surveyors Society.

# WINTER SERVICE POLICY

The Caerphilly County Borough Council aims to provide a winter service which, as far as possible, facilitates the safe movement of traffic and keeps to a minimum delays and accidents caused by adverse winter weather conditions. In practice this is achieved by taking precautionary measures to pre-salt certain routes, taking account of weather forecast and local observations. The response also aims to, as far as practicable, ensure access to essential Council premises, residential accommodation for older people, education establishments, hospitals, doctors surgeries, town centres, major bus stations and emergency services.

Priority is primarily given to the 'A' and 'B' roads (the authorities core transportation network so that the continuation of access to goods and services is maintained as best it can in the prevailing circumstances). The primary objective is to achieve the precautionary application of salt to specified elements of the network prior to the predicted time for the onset of sub-zero conditions.

During severe and/or prolonged sub zero/snowfall conditions causing the risk of formation of ice or significant accumulations of snow throughout the network, consideration is also given to those non principal classified routes and unclassified routes which are deemed to be of significant importance having regard to the number of vehicles carried during the morning/evening peak times on those routes which link a substantial community to a priority route. Actual locations will depend to an extent on particular weather conditions at the time and will be determined based on available information by the Highway Operations Group Manager / Designated Representative / Winter Emergencies Officer. These routes will be considered for treatment where practical, following completion of the priority routes.

There may be times during the winter period where decisions may need to be made to reduce salting of routes to a key strategic network should conditions dictate. Consultation will be undertaken with senior officers should this instance be necessary prior to implementation.

It is recommended that this policy needs to be reviewed alongside the Council's Out of Hours (Duty Officer) Manual. This will ensure that a full understanding of the operational context is understood for emergency situations.

# **1.** WINTER SERVICE ROLES AND RESPONSIBILITIES.

There are nine winter emergency roles defined within this section.

- 1.1. Winter Emergency Officer (WEO)
- 1.2. Highway Operations Group Manager/Designated Representative (HOGM/DR)
- 1.3 Operational Inspection Personnel (OIP)
- 1.4 Highway Operations Group (HOG)
- 1.5 Service Delivery Specification
- 1.6 Operational Duty Officer (ODO)
- 1.7 Sirhowy Enterprise Way (SEW)
- 1.8 Meteorological Forecaster
- 1.9 Decision Maker
- 1.10 Decision Receiver
- 1.1 Winter Emergency Officer (WEO)

The WEO is the duty officer responsible for monitoring and actioning all requirements in relation to winter maintenance outside normal working hours.

The WEO covers 3 categories of winter emergency operations:-

- Precautionary Salting
- White Out/Snow Plan
- Winter Emergency Severe Weather Flooding

# Precautionary Salting - Role and Responsibility

- 1. Weather forecasts received from weather centre to be noted and actioned in consultation with trained staff only (G Parry, G Richards, C Adams and S Hodges).
- 2. WEO to inform a controlled list of persons/organisation contacts of winter maintenance actions including "no action" via e-mail as appropriate.
  - Operational Duty Officer.
  - CCBC Out of Hours Control Room @ Tir-Y-Berth.
  - Met Office.
  - Emergency Services.
  - All neighbouring authorities.
- 3. Unless forecast is 'green' all vehicles to be placed on standby. WEO to confirm with supervisors that all vehicles are prepared fuelled up and ready. This process will include knowing what front line vehicles are unavailable due to servicing or repairs and arranging necessary cover in any depot with additional replacement vehicles, and providing a status report on unavailable vehicles.
- 4. Where forecast is unclear and vehicles placed on standby as above the WEO will maintain regular contact with weather centre until a clear action is defined.

- 5. Where no clear action can be defined from the above or forecast is unclear previous 5 days action and weather to be analysed to determine amount of residual salt on highway (in consultation with HOGM/DR). In accordance with the definitive and pessimistic requirement, <u>if in any doubt</u>, action for pre-salting to be called.
- 6. All actions should be communicated with sufficient warning enabling gritting teams to be informed in a timely manner. (All actions should be recorded by WEO and kept electronically)
- 7. WEO to determine time for completion of routes and then clearly inform all gritting teams of the time to meet at each depot and the time to commence each route in order that precautionary salting is completed prior to predicted onset time for sub zero conditions.
- 8. WEO to confirm attendance of all staff at depots prior to salting commencement, enabling any problems to be attended to in a timely manner without affecting salting.
- 9. During salting WEO to maintain contact with all drivers and report any difficulties or problems with the routes to HOGM/DR where necessary.
- 10. Where vehicle/equipment problems occur WEO to contact winter service fitter to assess repairs and arrange alternate plant to ensure timely completion of salting.
- 11. Upon completion of salting WEO to confirm completion of all routes and 'sign off' staff as returned safely. Key performance indicator record to be maintained for all routes completed prior to the predicted sub-zero forecast time.
- 12. Gritting staff to be informed at the time if rest periods\* are due, to allow sufficient time for preplanning of work the following day.
- 13. WEO to assess what impacts rest periods\* and plant unavailability will have on following days planned works and update works supervisors as appropriate.
- 14. No later than 07:30 the next day Supervisors to be notified of anticipated rest periods and vehicle breakdowns to allow efficient redeployment of plant labour and materials, as assessed by WEO.
- 15. WEO to ensure all records in accordance with current NCS quality assurance system requirements are maintained.
  - \* No strict guidelines are set out regarding rest period entitlement due to the significant amount of variables that could occur. However, duty time will be limited where possible to a maximum of 11 hours in a 24hour period and again where possible a minimum of 9.5 hours continuous off duty rest will be allocated. WEO to record time of action, amount of advance warning given and duration of action, some of which can be re-organised to mitigate disruption to all services by effectively managing resources, timely notification of actions required and monitoring of labour working and resting periods between shifts. Awareness of new legislation regarding driving hours needs to be taken into account when assessing rest periods.

# 1.2 Highway Operations Group Manager / Designated Representative.

- 1. HOGM/DR will undertake an annual review and update (as deemed necessary) of the Winter Maintenance Plan prior to the commencement of the winter maintenance period.
- 2. HOGM/DR shall ensure that the definitive GIS stored precautionary salting network and local salt bin locations are maintained.
- 3. HOGM/DR will ensure that a contract is in place with a meteorological contractor to supply a weather forecast or road danger warning each day during the months from October to March inclusive.
- 4. HOGM/DR will generally monitor the actions determined by their designated representative and/or WEO.
- 5. HOGM/DR will ensure that Highways House is available for snow emergencies and that staff can access the facility.
- 6. HOGM/DR shall ensure that all relevant KPI data is completed following the Winter Maintenance period.

#### 1.3 Operational Inspection Personnel.

- 1. When so requested by HOGM/DR, Inspectors will patrol the routes specified in order to assist the decision making process.
- 2. Any adverse conditions are to be reported to the WEO.
- 3. In the event of a snow emergency, inspection personnel will assist with the effective direction of resources.
- 4. Inspectors should generally make themselves aware of current winter maintenance actions prior to leaving work each day and ensure that the weekly availability log sheet is up to date.

# 1.4 <u>Highway Operations Group. (HOG)</u>

The Highway Operations Group is the winter maintenance service delivery client and contractor and is required to implement all winter service instructions issued by HOGM/DR/WEO. It is required to provide labour and plant, which must be available at all times to respond at short notice. The labour force is thoroughly trained and versed in the use of specialist plant and equipment to be used.

#### 1.5 <u>Service Delivery Specification.</u>

The service to be provided by the winter maintenance service delivery contractor is comprehensively specified. This document is effectively a contract and includes schedules of all plant and machinery to be used in the provision of the winter maintenance, which the H.O.G. will be responsible for delivering.

This document is reviewed annually prior to the commencement of the winter service period.

# 1.6 Operational Duty Officer. (ODO)

The Engineering Division operates a 24hour emergency response system, which is capable of responding to highway infrastructure related emergencies outside normal office hours. The ODO is the duty officer responsible for actioning all requirements in relation to the Out of Hours emergency service operated by HOG and needs to liaise closely with the WEO.

### 1.7 <u>Sirhowy Enterprise Way. (SEW)</u>

The SEW is the responsibility of CCBC, although it is a privately financed project which is operated and maintained by SEW Ltd. Caerphilly CBC as a local authority does retain an involvement with the project road as NCS Caerphilly County Borough Council has been contracted to undertake a twenty three year Operation and Maintenance Contract, which is due to expire on 20th January 2034.

Part of this contract is to provide a Winter Maintenance Service provision, and it has been incorporated within the existing winter maintenance routes for efficiency.

#### 1.8 Meteorological Forecaster.

During the winter months weather forecasts are received daily by e-mail by HOGM/DR and the WEO. Outside normal hours the WEO will receive the forecast directly from the forecast contractor. All copies of the forecasts and actions instructed are held electronically by the Highway Operations Group.

#### 1.9 Decision Maker.

On receipt of the daily forecast, a decision will usually be made for the gritting actions for that day. This decision will be made by HOGM/DR. In some instances it may not be possible to make a decision upon receipt of the daily forecast, and further updates from the meteorological contractor must be sought until action is confirmed or declined.

#### 1.10 Decision Receiver.

When the decision has been made regarding pre gritting action, this decision is then relayed to the WEO, The WEO then informs all drivers of the start times of the gritting routes and the spread rates and also records the completion times of the gritting routes.

# 2. OPERATIONAL PLAN – PRE SALTING

# 2.1 <u>During the Normal Working Day</u>

- 1. HOGM/DR will receive weather forecast/road danger warning information daily throughout the designated winter maintenance period October 1<sup>st</sup> to April 30<sup>th</sup> and determine the appropriate action.
- 2. HOGM/DR will convey the instruction to the WEO who will then be responsible for undertaking the detailed duties of the WEO.

#### 2.2 Outside the Normal Working Day/Bank Holidays/Weekends

The WEO will receive forecast information including updates as necessary, determine the appropriate action in consultation with HOGM/DR and undertake the detailed roles and responsibilities of the WEO (listed previously).

Similarly, a general priority order has been established for the clearance of ice and snow; which is as follows:

- 1. Strategic salting routes A, B and C if implementation required.
- 2. Major roads. (described as Priority Routes for Pre-salting)
- 3. Other routes known as urgent medical and important industrial routes.
- 4. Other Class II and III roads providing access to villages.
- 5. Bus routes.
- 6. Routes to schools, doctor's surgeries, dialysis patients meals on wheels & funerals.
- 7. Other roads to give access into built up areas.
- 8. Roads serving isolated farms and houses.
- 9. Other roads.

In the event of a severe snow emergency it will be necessary to augment the winter maintenance fleet by the use of additional plant hired from previously arranged sources and to implement the Snow Plan (Section 3) which utilises labour resources from other directorates to assist in the clearance of snow/ice.

The winter service delivery will be undertaken by a highly experienced combined client/contractors team. The utilisation of experienced local in-house staff has proved extremely beneficial in the past with high levels of local knowledge and experience applied. This well trained in-house service is considered an essential strategic link in maintaining the local highway network in an acceptable operations condition.

#### 2.3 Pre-salting.

In accordance with the Winter Maintenance Policy, priority routes will be pre-salted when weather conditions so dictate as instructed by HOGM/DR/WEO.

In the interest of efficiency and in order to achieve the desired target time the priority routes have been grouped together to form pre-salting routes of approximately 58 kms, excluding dead mileage.

Each pre-salting route has been given an identification number from 1-8. These routes are included in Appendix A. Should conditions dictate the need to salt high routes only (generally above 300m), then the routes indicated 10 and 11 in Appendix B will be actioned.

# 2.4 <u>Recommended Practice for Pre-salting.</u>

Precautionary salting takes place when the road surface temperature is expected to fall to  $0^{\circ}$ C or below unless:-

- i) no moisture is expected on the road surface.
- ii) there is enough residual salt on the road to deal with expected conditions.

Pre-salting should normally be at 10 gms/sq.m and should be completed prior to the formation of frost. The width of spread should be 2.0m less than the width of the carriageway, the channels then being treated by the action of traffic.

When continuous snow is forecast, spreading rates should be increased to 25 gms/sq.m. HOGM/DR/WEO will specify within the instruction to the contractor the rate of spread required according to the anticipated severity of the snowfall. The presence of salt will melt the initial fall and provide a wet surface beneath subsequent snow thus easing the work of ploughing.

When persistent ice is expected, spreading rates should be similarly increased to 25 gms/sq.m according to severity.

During a period of long cold dry weather salting rates may be reduced to 8 gms/sq.m and an assessment of road condition taken to determine whether daily continuous salting is required.

#### 2.5 <u>Strategic Salting Routes A, B and C.</u>

Strategic routes A, B and C may need to be implemented should salt stocks reduce to a critical level of less than 1000T and the advanced forecast and salt delivery information give cause for concern. Consultation with the Head of Service and the Councils Chief Executive Officer will be undertaken prior to implementation of this strategic salting regime. These strategic routes are included in Appendix C.

#### 2.6 <u>Emergency Conditions.</u>

HOGM/DR/WEO will be responsible for initiating emergency conditions and the procedures contained in the snow plan (see Section 3). Emergency conditions will generally arise from significant snowfall and/or widespread ice formation. If emergency conditions arise outside of normal working hours the WEO will advise HOGM/DR of such action and the service will operate from Highway House. The object of this arrangement is to provide a single co-ordinating centre to assess conditions, determine actions, organise the effective utilisation of resources and provide accurate information. Emergency meetings will be arranged as and when required by the HOGM/DR/WEO. All minutes/decisions from these meeting will be documented and stored electronically.

All relevant information regarding the emergency will be monitored, collated and disseminated to the DoC, the HoES and any other relevant parties by HOGM.

It is likely that emergency conditions will have wider and more significant impacts on council services and to the community.

Therefore to ensure that there is an integrated emergency management of such incidents and to allow coordination within the Council and with external organisations, the Councils Emergency Planning Team (During Officer Hours) or Environmental Health Duty Officer (Out of Hours) should be notified and regularly updated on ongoing operations. Appropriate contact details can be found in Appendix E.

#### 2.7 Salting of footways.

Footways will not be subject to precautionary pre-salting in the same manner as carriageways.

During severe winter conditions such as heavy or prolonged snowfall and/or significant ice formation a pre-defined network of the most heavily used pedestrian routes centered on major shopping zones will be treated in accordance with the snow plan upon instruction of HOGM/DR/WEO. The decision will be informed as necessary by local onsite inspections of the network at the instigation of HOGM/DR/WEO.

Advice on sensible use of the Highway network during winter conditions is available on the Caerphilly County Borough Council web pages.

Shopping areas and safe routes to schools will be monitored during early morning inspections if deemed necessary.

#### 2.8 Pedestrian Footbridges .

There are twelve footbridges within the authority, which provide a primary pedestrian access across major roads to nearby schools.

Where it is anticipated that ice may form on these footbridges HOGM/DR/WEO will instruct the appropriate Inspector to attend these footbridges before 07.00hrs on school days. Based on the Inspector's observations, arrangements will be made to hand salt these footbridges before 08.00 if required. Footbridge locations are listed in Appendix D.

#### 2.9 Salt Bins.

There are 869 strategically placed salt bins that have been provided on a "self help" basis. These are filled at the end of the winter period to deter theft vandalism and litter problems through the summer. Bins will be filled periodically during the winter, usually after a spell of severe weather conditions, provided sufficient stocks are available.

The decision for placement of additional salt-bins is determined by the availability of funds, which in these financially challenging times are very limited. Although there is

a dedicated budget for salt-bins and their resupply, the current situation means that salt-bin refills and replacements are prioritised over the purchase of bins for new locations.

All requests for additional bins follow a standardised series of stages (which are outlined in the decision flow chart in Appendix M) in conjunction with a scoring exercise (following determining factors outlined in the blank assessment form also in Appendix M). The final score will position this request in a league table listing all outstanding salt-bin enquires. This will then determine the order in which these requests are addressed, as and when funds become available.

### **3. OPERATIONAL PLAN – SNOW CONDITIONS.**

3.1 White Out - Snow Plan.

Snow will normally be forecast in advance allowing WEO to discuss/plan actions in conjunction with HOGM/DR to assess requirements for additional staff for the period. Good communication and teamwork will also allow the same to be organised in emergency situations where no warning is given.

Procedures 1-15 in section 1.1 for precautionary salting operations will apply with the addition of the following:-

- 16. Additional precautionary salting staff to be organised to 'ride shotgun' with gritter drivers if ploughs are required. They will assist with the fitting of ploughs and accompany the driver on their route. In white out conditions, the use of external resources under CCBC direction will be considered.
- 17. Other additional labour may be utilised for hand salting or driving backup gritters to respond to emergency calls. This may include staff from other service areas such as Public Services, Building Services and Ground Maintenance.
- 18. Highway House will be opened up out of hours with the WEO and CCBC Tir-Y-Berth control room (Out of Hours) notified of action.
- 19. Where prolonged snowfall is predicted WEO will instigate a shift pattern. This shift pattern will be organised for the WEO, labour force and HOG Staff, to enable effective gritting for prolonged periods.
- 20. Regular updates of forecast to be recorded to allow advance planning of resources.
- 21. WEO to monitor precautionary salting duties to allow effects on programmed work to be minimised by releasing and replacing essential labour to maximise following days productivity without compromising precautionary salting thus, maintaining work commitments and contracts.
- 22. Labour to be notified of rest periods if due and details/actions passed to HOG Team Managers and Supervisors by 07:30 the following day with assessed amendments.

23. Notify the Councils Emergency Planning Team (During Officer Hours) or Environmental Health Duty Officer (Out of Hours) and regularly updated on ongoing operations. Appropriate contact details can be found in Appendix E.

#### 3.2 Implementation of Snow Plan

HOGM/DR/WEO will be responsible for initiating snow plan actions.

HOGM/DR/WEO will implement pre-planned arrangements to increase resources directed at snow/ice clearance. Contact details are included in Appendix E.

#### 3.3 <u>Recommended Practice for Ploughing Snow.</u>

In the interests of traffic safety and effective working it is necessary to have a snow ploughing policy, which is readily understood and acted upon by all staff.

Ploughing generally only becomes effective when snowfall exceeds 50 mm in depth. Lighter falls may call for ploughing where light local drifts have occurred. Ploughing may be required to remove snow not dispersed by traffic in cases where there is a reluctance to use the right hand lane of dual carriageways or where traffic is light (at night for instance).

When prolonged falls are forecast it is recommended to plough continuously from the onset of snow to prevent build up and to prevent compaction by traffic. Such ploughing can be combined with simultaneous salting at 15-25 gms/sq.m and over if appropriate, so that a wet base is maintained. However, once snow depths of 12cms have been reached, when tackling snow drifts or where vehicles are operating on gradients it may be desirable to continue ploughing without salting. The weight of a salt load will aid vehicle traction when ploughing. Additional actions would depend upon the depth of the remaining snow.

When repeated ploughing is necessary 24 hour manning may be required. This will be undertaken via a 2 shift system in order to achieve maximum staff deployment.

On dual carriageway sections of the network within the authority the following additional recommendations should be observed:-

- i) The process should be based on CLEARANCE BY LANES with the ultimate object of CLEARING ALL LANES. Dual carriageway lanes are defined by broken white lines and road studs/cats eyes which drivers are accustomed to use as guides. It is therefore bad practice to make ploughing passes which leave traffic guided by irregular windrows of snow which weave from one lane to another or even on and off the hard shoulder. The effects of such ploughing for traffic is dangerous in daylight and even more so at night.
- ii) It is also undesirable to leave only half lanes clear as drivers are tempted to overtake dangerously by squeezing past at speed. Similarly, the ploughed windrows of snow should form a smooth and continuous line without sudden encroachments into the cleared path or overtaking vehicles will be obliged to brake hard or risk hitting the windrows at speed.
- iii) The ultimate aim must always be to clear all lanes as soon as conditions permit, and clearance work should proceed continuously to this end. If

clearance work is stopped during a fall, resultant snow build-up may take disproportionately longer to clear. Packed snow, glazed by the wind can be particularly difficult to remove.

- iv) If one or more lanes are left uncleared and a thaw sets in, those lanes will go through an uncontrolled transitional stage of semi clearance under the action of the thaw, which might tempt imprudent drivers to risk overtaking through the restricted gaps already mentioned.
- v) Due to variations in local weather conditions, snow depth, snow wetness and topography, it is difficult to be precise on the order of lane clearance. Local traffic densities and movements, which differ from day to day and even within a day, can affect lane clearance priorities.

# 3.4 Snow Clearance Additional Priorities.

A priority order has been established for the clearance of ice and snow, which is as follows:-

- 1. Strategic salting routes A, B and C if implementation required.
- 2. Major Roads. (described as priority routes for pre-salting)
- 3. Other routes known as urgent medical and important industrial routes.
- 4. Other Class II and III roads providing access to villages.
- 5. Bus routes.
- 6. Other roads to give access into built up areas.
- 7. Roads serving isolated farms and houses.
- 8. Other roads.

Where snowfall is substantial and prolonged it may be necessary to close certain mountain roads and steep hills in the interest of safety. Such closures would be kept to a minimum and alternative routes should be kept clear.

#### 3.5 Action when a thaw occurs.

Appropriate warning signs must be ready for placement at locations of known flood risk. Appropriate gullies and water outlets should be opened to permit free flow of water. Carriageways should be inspected for evidence of frost damage and damage by snow clearing plant and remedial action identified.

#### 3.6 Meals on Wheels Kitchens.

There is one "meals on wheels" kitchen within the County Borough, which has been incorporated to within the kitchen facilities of Ty Penallta. This kitchen will receive priority in terms of snow clearance to ensure that the provision of hot meals to the elderly is maintained. The kitchen is at the following location:-

Ty Penallta, Tredomen Park, Ystrad Mynach, Hengoed. CF82 7PG.

## 3.7 Snow/Persistent Ice Clearance on Footways.

Salt is not spread on footways on receipt of an adverse weather forecast. However, where snow or persistent ice forms on footways, it shall be cleared having regard for the prevailing conditions, forecast and available resources. The Housing Dept. and the Social Services also have, through their Grounds Maintenance related functions, certain responsibilities for snow clearance beyond the public highway, which include typically, Council Offices and Day Care Centres. Additional resources are directed to this task see Appendix F.

Hand clearance of strategic locations is to be undertaken by additional personnel from Grounds Maintenance and Public Services, under the instruction of HOGM/DR. These additional personnel will be accompanied by their own supervisory staff.

A priority order has been established for the clearance of ice and snow from footways which is as follows provided resources allow:-

- i) Town centre footways. (See Appendix G)
- ii) Footways giving access to hospitals, doctors surgeries, schools and homes for the elderly etc. (See Appendices H & I)
- iii) Access to fire & ambulance stations (See Appendix J)
- iv) Footway access for emergencies.
- v) Footways to allow funerals to proceed.

# 4. WINTER EMERGENCY – FLOODING.

Should an emergency for flooding occur during the winter period, the following process should be followed:-

- 1 If severe weather dictates that the WEO requires additional resources the WEO will liaise with HOGM/DR and arrange that Highway House to be established as a control room if deemed necessary.
- 2 The WEO will liaise with the ODO during periods of severe snow/ice or flooding and combine resources to effectively manage the situation, if appropriate by establishing a control centre at Highways House.
- 3 The WEO will contact winter emergency operatives to meet at the respective depots.
- 4 The WEO in consultation with the ODO will allocate resources to effectively resolve flooding problems.
- 5 The WEO will assess whether other additional resources over and above the winter emergency operatives are required and will endeavour to ensure adequate resources are available to effectively resolve flooding problems.
- 6 The WEO will keep HOGM/DR fully informed during such occurrences.
- 7 Notify the Councils Emergency Planning Tean (During Officer Hours) or Environmental Health Duty Officer (Out of Hours) and regularly update on ongoing operations. Appropriate contact details can be found in Appendix E.

Should the severity of the situation escalate, consideration of providing updates to the Head of Service and the Director of Communities should be made.

# 5. COMMUNICATION PLAN.

# 5.1 <u>Means of Communication.</u>

Communications will be predominately by telephone, of which, the Highway Operations Group have suitable numbers of mobile telephones. In the event of a snow emergency the service will be directed and managed from Highways House in order to ensure prompt and effective direction of operations. Should events escalate, decisions will be taken by HOGM/DR or the WEO to inform and update HoES and CEO as deemed appropriate.

### 5.2 Public/Emergency Services Information/Customer Care/Out of Hours.

The public and the emergency services will be informed of the services to be provided prior to commencement of the winter and where necessary during the winter.

With regard to the public, this will be achieved by distributing this document to Community and Town Councils. In addition to local councilors, copies will also be distributed to public libraries and made available on the intranet.

Emergency services will be informed of the County Borough's policy on winter maintenance and how it will be achieved. A copy of this document will be distributed to all the emergency services.

Emergency services and the Meteorological Forecaster will be informed daily, by 16.00 hours of any preplanned action to be undertaken during the night.

This information is also relayed by e-mail to the personnel covering the 'Customer Care' line and the control room at Tir-Y-Berth (Out of Hours) in order that they may advise callers of proposed action and any information in respect to road conditions through the provision of regular and accurate reports.

#### 5.3 Road Condition Information to the Media.

HOGM/DR/WEO will provide information to local radio via the CCBC Communications Group in respect to current conditions. The general message will be to discourage all unnecessary car journeys and to advise on which routes are blocked, closed or considered hazardous.

Alternatively, information can be provided to wales@inrixmedia.com

Daily information will be forwarded to the website coordinator to update the webpage on gritting action for that day.

All internal communication will be completed by either telephone or e-mail.

# 6. WEATHER FORECASTER/WEATHER CONDITION REPORTS.

#### 6.1 Introduction.

Effective and efficient winter service is only possible with reliable information on road and weather conditions. HOG personnel need accurate and detailed information in order to implement the operational requirements of this document. HOG receive weather forecasts and road condition reports from the following sources:-

#### 6.2 <u>Meteorological Forecaster.</u>

During the winter months, weather forecasts are received daily by e-mail by HOG. Outside normal hours the WEO will receive the forecast directly from the forecast contractor. All copies of the forecasts and actions instructed are held electronically by HOG.

#### 6.3 Local Reports.

Local reports of poor road and or weather conditions are received from the Police and the public. During office hours HOG/DR deals with these reports. Outside office hours, the WEO deals with reports from the Police and seeks advice/guidance from HOGM/designated representative if deemed necessary.

#### 6.4 Road Weather Sensors.

There are five road weather sensors located at Markham, Ystrad Mynach, Hafodyrynys, Risca and Princetown. Data gathered from these sensors will be used by the meteorological forecaster and aid in the forecasting of road conditions and temperatures. These weather sensors will allow operational staff to review real time information on current road condition at these locations at any time.

## 6.5 Forecast Details and Format.

During the winter period a weather forecast, compiled by the meteorological forecaster, is received daily by HOG. It gives a prediction of minimum road surface temperatures and road conditions including snow and other forms of precipitation. Reference is also made to the time of day or night when such conditions are expected, the altitude, if this is relevant, and confidence limits. An alert state is also given with the forecast to give a first indication of likely conditions. The alert states are described as follows:-

**GREEN** No road within the domain will fall below zero.

This indicates a very high probability of road temperatures remaining well above zero and can be used specifically for use in mild cloudy situations. Road temperatures quoted on the forecast must be definitely expected to remain above 3 degrees C.

AMBER Roads within the domain will get close to zero and may fall below zero if the forecast is in error by any degree. Road temperatures are certainly expected to fall to 2 degrees.

This indicates there is some doubt in the forecast and although positive temperatures may have been quoted in the forecast text, they will be so close to zero that they will need to be updated to RED or GREEN before the planned action or gritting runs commence.

Roads could also be forecast to be below zero, but due to prolonged dry spells they will pose limited risk.

**RED** Roads in the domain will fall below zero.

This indicates that there is a high probability of roads within the domain falling below zero. A negative road temperature will have been quoted in the domain forecast with amplification within the text to give details of heights and times.

A typical weather forecast received from the meteorological contractor is shown in Appendix K.

### 6.6 Forecast Monitoring and Updates.

The forecast is received daily at about 13.30 hours from 1 October to 31 March. The forecast provider will constantly monitor the weather and issue updates to the forecast when it considers the advice is no longer adequate or accurate. If an AMBER alert state is included in the forecast, the forecast will always be updated before any planned action commences.

#### 6.7 Consultation Service.

The forecast provider also provides a consultation service from October to April which allows HOG to speak directly to the Duty Forecaster in order to obtain "up to the minute" information on weather conditions and trends.

#### 6.8 Snow Warnings.

Even slight accumulations of snow can lead to treacherous icy surfaces under the action of traffic when the temperature of the surface is below freezing point. Warnings of slight falls will therefore be issued unless it is confidently expected that the temperatures will remain above freezing.

These are warnings of fall of snow that are likely to require HOG to consider arrangements for snow clearance, gritting or salting. Warnings refer to slight, moderate or heavy falls as follows:

Slight:	Undisturbed accumulations of less than 25mm depth
Moderate:	25 to 100mm
Heavy:	Over 100mm

# 7. SALT STOCKS.

For the forthcoming winter service period, the authority will use "safecoat" coated rock salt. This type of salt adheres itself to the road surface, thus eliminating waste. Safecoat coated rock salt also reduces the amount of corrosion on street furniture, structures and road vehicles, as well as reduced application rates.

Stocks of ground rock salt, stored in barns at Pontlottyn, Bedwas and Penmaen, are replenished during the summer. Salt is stored in barns as rainwater causes loss of salinity and increases its moisture content. Wet salt is difficult to spread and can damage equipment.

During periods of prolonged severe weather conditions salt stocks may need to be replenished. Contracts to supply salt have been awarded to suppliers in Cheshire and Northern Ireland. Supplies can normally be obtained from Cheshire within 48 hours. However, recent events have shown the vulnerability of these supplies nationally.

The availability of rock salt from stock at the start of the winter is as follows:-

Location	Capacity
Bedwas Depot	4,700 tonnes
Penmaen Depot	1,200 tonnes
Pontlottyn Depot	1,200 tonnes
Strategic Salt Stocks	2,000 tonnes
Grit Bins	300 tonnes
Total	9,400 tonnes

Salt stocks are monitored weekly and minimum stock levels have been set at 50% of the total. Stock levels between this minimum and the start of winter levels will be provided throughout the winter dependant on supplier deliveries. The actual level is to be determined by HOGM based on weather conditions, forecast and judgment.

The strategic salt is available from a regional salt barn situated at Waun-Y-Pound Ind Est, Ebbw Vale. This facility is shared between Caerphilly, Blaenau-Gwent, Monmouth, Torfaen, Merthyr and Rhondda Cynon Taff CBC's and is available for this winter. Caerphilly will have an additional 2000T emergency stockpile stored at this facility.

If a salt shortage should arise, a review in the pre salted routes may be instructed by HOGM in consultation with Head of Service and the Councils Chief Executive Officer. In the event that the Strategic pre salted routes are implemented, all other routes will be monitored for formation of ice and the safe passage for public use. (Details of these Strategic Routes will be found in Appendix B)

# 8. RESOURCES.

### 8.1 Details of fleet.

HOG maintains a fleet of 13 gritters (with an additional 3 vehicles hired in for this winter) of which 8 are front line winter service vehicles and 8 are reserves. Each vehicle can be fitted with a snowplough.

HOG also has 4 snow ploughs that can be fitted to the 7.5t tipper lorries.

All ploughs are fitted with polypropylene blade attachments to prevent damage to carriageway and road studs.

HOG also has a snow blower, kept at Bedwas Depot.

Shovel loaders are available for loading salt at Pontlottyn, Bedwas and Penmaen salt storage depots.

HOG also has available additional plant and can procure sub-contract plant from external sources, which may be used in an emergency.

A list of available gritting equipment is included in Appendix J.

### 8.2 Location of Winter Service Vehicles/Equipment and Fuel Stocks.

Each item of winter service plant is located in accordance with its operational requirement. Accordingly those vehicles allocated for routine pre-salting are located at Bedwas and Penmaen salt storage depots.

Those vehicles held in reserve are usually kept at the Bedwas & Penmaen Depots.

HOG is responsible for ensuring all vehicles have adequate supplies of fuel and that it is used in accordance with current regulations.

Should conditions dictate the implementation of the snow plan routes 1 and 2 will revert to operating out of Pontlottyn Depot and additional resources be considered for deployment to Pontlottyn Depot.

#### 8.3 Manning of Plant.

HOG is responsible for providing all drivers and operators for all winter service plant held by this Authority. They are thoroughly trained and versed in the use of the specialist plant, equipment and their operational requirements.

The labour force is readily available and is of sufficient size to carry out any instruction given in accordance with the general requirements of this document.

Where extreme conditions or prolonged snowfall are expected HOG will be instructed to place appropriate personnel on "standby" at the relevant depots. This will facilitate a prompt or continuous response to the wintry weather.

# 8.4 Winter Service Vehicle Spread Rate Calibration.

Prior to the winter service season all spreading vehicles are calibrated to ensure that target spread rates are achieved. HOG holds these records.

### 8.5 Additional Personnel.

Additional personnel may be made available from Public Services, Building Services and Grounds Maintenance should conditions necessitate additional resources. These personnel will generally only be available in snow conditions. Actual circumstances are to be decided upon by CEO, Head of Public Services, Head of Building Services, Head of Engineering Services and Highway Operations Group Manager. These additional personnel will primarily be utilised in the clearance of footpaths in accordance with the snow plan priorities. Supervisory staff will also be available to compliment the manual workforce and will work under instruction from highways staff at either Highway House or Bedwas Depot.

# Appendix A.

# Pre-salting Routes 1-8.

Precautionary pre-salting route descriptions and plans.

- Note 1: The route plans are schematic only and must be read in conjunction with the route descriptions.
- Note 2: In some instances, gritting may be hampered by slow moving traffic flows, or a RTC. It will be up to the drivers discretion at these times to divert from the original route to achieve best results for coverage of the routes. Ultimately, all routes should be gritted prior to the onset of frost.

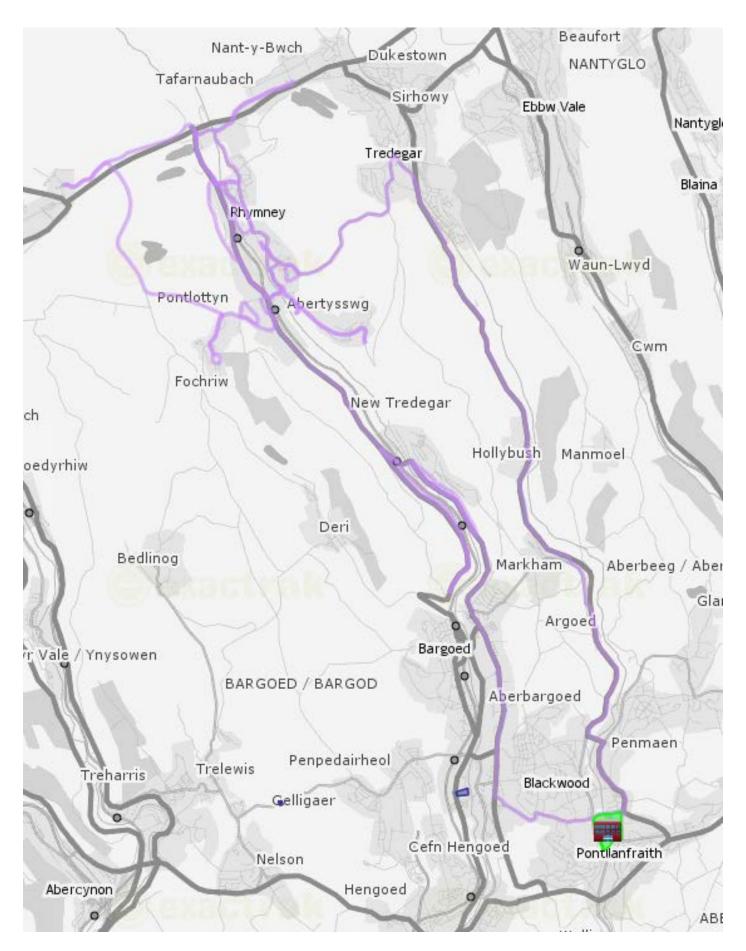
Pre-salting Route 1 (Penmaen)

No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn left - Travel B4254
3	F	Continue - Travel B4254
4	F	Enter roundabout travelling and take exit 1 on to B4254
5	F	Turn right - Travel A4049 to junction B4254
6	F	Continue - Travel A4049
7	F	At roundabout take exit 3 to PENGAM ROAD
8	F	Continue - Travel A4049. Grit
9	Т	Enter roundabout gritting and take exit 2 to DUFFRYN TERRACE
10	Т	Turn right - Grit DUFFRYN TERRACE
11	Т	Continue - Grit DUFFRYN TERRACE to SCHOOL STREET
12	Т	Continue - Grit SCHOOL STREET to CROSS STREET
13	Т	Turn left onto A4049
14	Т	Turn left onto ELLIOTT STREET
15	Т	At roundabout take exit 2 to ELLIOTT STREET
16	Т	Continue - Grit ELLIOTT STREET to QUEENS ROAD
17	Т	Continue - Grit QUEENS ROAD to UPPER ROAD
18	Т	Turn right onto A4049
19	Т	Continue - Grit A4049
20	Т	At roundabout take exit 1 to A4049
21	Т	Continue - Grit A4049 to A469
22	Т	Turn left onto A469
23	Т	Continue grit A469 to PLEASANT VIEW
24	Т	Continue grit PLEASANT VIEW to BRITHDIR CEMETARY. End of salting
25	F	U-turn - Travel BRITHDIR CEMETARY to BRISTOL TERRACE. Grit
26	Т	Turn right -Grit BRISTOL TERRACE
27	Т	Continue - Grit BRISTOL TERRACE to NELSON TERRACE
28	Т	Continue - Grit NELSON TERRACE to TIRPHIL SQUARE. End of salting
29	F	Turn left - Travel TIRPHIL SQUARE to A469. Grit
30	T	Continue - Grit A469 to FARM ROAD
31	T	Continue - Grit FARM ROAD to FOCHRIW ROAD.
32	T	Turn right onto HILL ROAD. Grit
33	T	Turn right onto BRYNHYFRYD
34	T	
35	T	Continue - FOCHRIW ROAD to PONTLOTTYN ROAD
36 37	T	Continue - Grit PONTLOTTYN ROAD
37 38	T T	Continue - Grit PONTLOTTYN ROAD to BROOK ROW Turn Left - onto MOORES ROW
30 39	Т	Continue - Grit MOORES ROW to AELYBRYN STREET
39 40	Т	Continue - Grit AELYBRYN STREET
40 41	T	Turn left onto HEOL IAGO
42	Ť	Continue - Grit HEOL IAGO to GLAN-Y-NANT
43	Ť	Continue - Grit GLAN-Y-NANT
44	Ť	Turn right onto HEOL IAGO
45	Ť	Continue - Grit HEOL IAGO to AELYBRYN STREET
46	Ť	Turn left onto AELYBRYN STREET
47	T	Continue - Grit AELYBRYN STRET to MOORES ROW. End of salting.
48	F	Turn right onto BROOK ROW
49	F	Continue - BROOK ROW to PONTLOTTYN ROAD
50	F	Continue - Travel PONTLOTTYN ROAD. Grit
51	Т	Turn left - Grit SOUTH TUNNEL ROAD
52	т	Continue - Grit SOUTH TUNNEL ROAD to TUNNEL TAVERN.
53	Т	Turn right onto TRECATTI HILL
54	Т	Continue - Grit TRECATTI HILL to RHYMNEY COMMON ROAD

55	Т	Turn left onto RHYMNEY COMMON ROAD
56	Т	Continue - Grit RHYMNEY COMMON ROAD to ROUNDABOUT
57	Т	At roundabout take exit 4 to RHYMNEY COMMON ROAD. End of salting
58	F	Travel RHYMNEY COMMON ROAD to COMMON ROAD. Grit.
59	Т	Continue - Grit RHYMNEY COMMON ROAD to ROUNDABOUT
60	Т	Complete a circuit of the roundabout and take exit 2 to RHYMNEY
61	T	Complete a circuit of the roundabout and take exit 1 to B4257
62	Ť	Continue - Grit B4257 to MERTHYR ROAD
63	Ť	Continue - Grit MERTHYR ROAD to End of Salting
64	F	Continue - Travel MERTHYR ROAD
65	F	Enter roundabout travelling and take exit 4 back to MERTHYR ROAD
66	F	Continue - Travel MERTHYR ROAD to B4257. Grit
67	Т	Turn left grit B4257 to UPPER HIGH STREET
68	Т	Turn right - Grit CARNO STREET to A469
69	Т	At roundabout take exit 4 on to CARNO STREET. End of salting.
70	F	Travel CARNO STREET
71	F	Continue - Travel CARNO STREET to B4257. Grit.
72	Т	Turn right - Grit UPPER HIGH STREET
73	Т	Continue - Grit UPPER HIGH STREET to CHURCH STREET
74	Т	Continue - Grit CHURCH STREET to HIGH STREET
75	Т	Continue - Grit HIGH STREET
76	Ť	Turn right onto TRE-YORK STREET
77	Ť	Turn right onto THE TERRACE
78	Ť	Continue - Grit TRE-YORK STREET to GLAN-YR-AFON
	=	
79	T	Continue - Grit GLAN-YR-AFON
80	T	Turn right onto CARNO STREET. End of salting
81	F	Travel CARNO STREET
82	F	Continue - Travel CARNO STREET to CORONATION CRESCENT. Grit
83	Т	Turn right - Grit CORONATION CRESCENT
84	Т	Continue CORONATION CRESCENT to QUEENS CRESCENT
85	Т	Continue QUEENS CRESCENT to HIGH STREET
86	Т	Turn right onto HIGH STREET. End of salting
87	F	Travel HIGH STREET to TRE-YORK STREET. Grit
88	Т	Continue - Grit HIGH STREET TO HAVARDS ROW
89	Т	Continue - Grit HAVARDS ROW to BRYN-TEG CRESCENT
90	Т	Turn left onto HILL STREET
91	т	Continue - Grit HILL STREET to MORIAH STREET
92	Т	Turn right onto MORIAH STREET
93	Ť	Continue - Grit MORIAH STREET
94	Ť	Turn left onto WELLINGTON WAY
9 <del>4</del> 95	Ť	Continue - Grit WELLINGTON WAY
	T	Turn left onto ABERTYSSWG ROAD
96 07	=	
97	T	Continue - Grit ABERTYSSWG ROAD
98	Т	Turn right on COMPREHENSIVE SCHOOL ACCESS ROAD
99	T	U-turn - back to ABERTYSSWG ROAD
100	Т	Turn right - Grit ABERTYSSWG ROAD
101	Т	Continue - Grit ABERTYSSWG ROAD to CARN-Y-TYLA TERRACE
102	Т	Continue - Grit CARN-Y-TYLA TERRACE to WARN'S TERRACE
103	Т	Continue - Grit WARN'S TERRACE to WALTER STREET
104	Т	Continue - Grit WALTER STREET to CHARLES STREET
105	Т	Continue - Grit CHARLES STREET to End of Salting
106	F	U-turn - Travel CHARLES STREET to WALTER STREET
107	F	Continue - Travel WALTER STREET to WARN'S TERRACE
108	F	Continue - Travel WARN'S TERRACE to CARN-Y-TYLA TERRACE
100	F	Continue - Travel CARN-Y-TYLA TERRACE to ABERTYSSWG ROAD
110	F	Continue - Travel ABERTYSSWG ROAD. Grit
	Г	
111	I	Turn left - Grit B4257

112	Т	Continue - Grit B5247 to MERCHANT STREET
113	Т	Turn left onto MERCHANT STREET
114	Т	Continue - Grit MERCHANT STREET to FARM ROAD
115	Т	Turn right onto FARM ROAD
116	Т	Turn right onto FARM ROAD
117	Т	Continue - Grit FARM ROAD to HEOL EVAN WYNNE
118	Т	Turn right onto HEOL EVAN WYNNE
119	Т	Continue - Grit HEOL EVAN WYNNE to A469
120	Т	Turn left onto A469
121	Т	At roundabout complete a circuit and take exit 2 to A469
122	Т	Continue - grit A469 to HEADS OF VALLEYS ROUNDABOUT
123	Т	At roundabout take exit 4 back onto A469.End of salting.
124	F	Travel A469 to CARNO STREET. Grit
125	Т	At roundabout complete a circuit and take exit 3 to INDUSTRIAL ESTATE
126	Т	Continue - Grit INDUSTRIAL ESTATE to A469. End of salting
127	F	Turn right - Travel A469
128	F	Continue - Travel A469 to MERCHANT STREET. Grit
129	Т	Turn left - Grit WELLINGTON WAY
130	Т	Continue - WELLINGTON WAY to FORGE CRESCENT
131	Т	Turn left onto LAWN INDUSTRIAL ESTATE
132	Т	Continue to End of salting.
133	F	U-turn - Travel LAWN INDUSTRIAL ESTATE to FORGE CRESCENT. Grit
134	Т	Continue - Grit HILL STREET
135	Т	Continue - Grit HILL STREET to TAN-Y-BRYN
136	Т	Turn right - Grit TAN-Y-BRYN
137	Т	Continue - Grit TAN-Y-BRYN
138	Т	Turn right onto GARDEN CITY
139	Т	Continue - Grit GARDEN CITY to HILL STREET
140	Т	Turn right onto HILL STREET
141	Т	Continue - Grit HILL STREET to End of salting.
142	F	Travel B4256 to A4048
143	F	Travel A4048 to COUNTY BOUNDARY at HOLLYBUSH. Grit
144	Т	Continue - Grit A4048
145	Т	Turn right onto SLIP ROAD. Grit
146	Т	Turn left - Grit PENYLLAN ROAD
147	Т	Continue - Grit PENYLLAN ROAD to A4048
148	F	Turn right onto A4048
149	F	At roundabout take exit 1 to A4048
150	F	At roundabout take exit 2 to A4048
151	F	At roundabout take exit 2 to A4048
152	F	At roundabout take exit 3 to B4254
153	F	Turn left onto PENMAEN ROAD INDUSTRIAL ESTATE
154	F	Turn left onto DEPOT

# Pre-salting Route 1 (Penmaen)



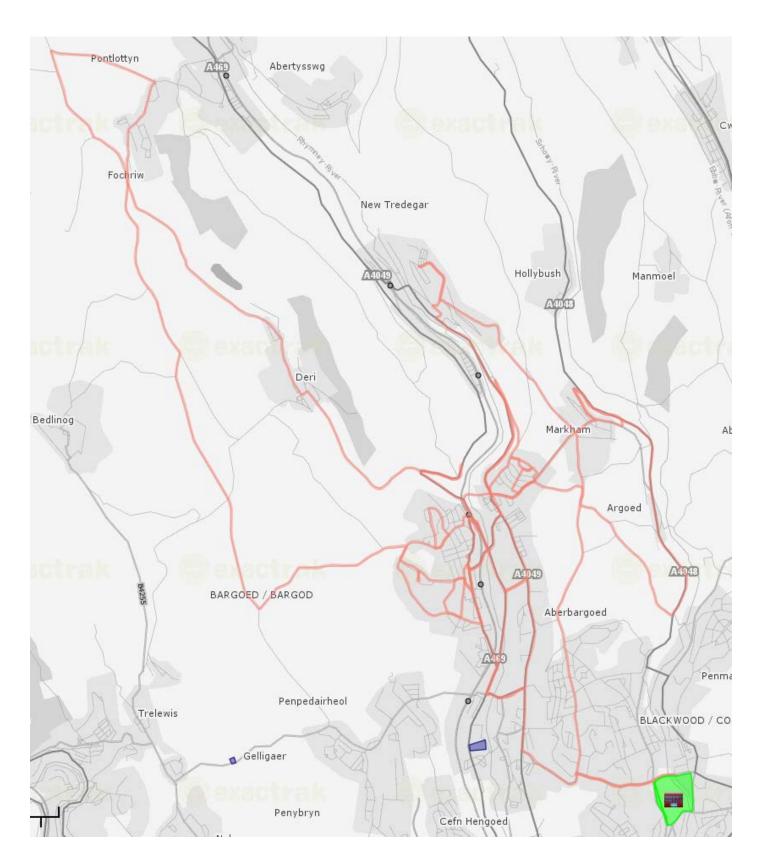
Pre-salting Route 2 (Penmaen)

No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn left - Travel B4254
3	F	Enter roundabout travelling and take exit 3 to BRYN ROAD
4	F	Continue - Travel BRYN ROAD.
5	F	At junction - Continue travel BEDWELLTY ROAD
6	F	Continue - Travel BEDWELLTY ROAD to GREENWOOD ROAD. Grit
7	Т	Continue - Grit HEOL Y CEFN
8	Т	Continue - Grit HEOL Y CEFN to HEOL Y BEDW-HIRION
9	Т	Continue - Grit HEOL Y BEDW-HIRION.
10	Т	Turn left onto BEDWELLTY ROAD
11	Т	Continue - Grit BEDWLLTY ROAD
12	Т	Turn left onto BEDWELLTY ROAD
13	Т	Continue - Grit BEDWELLTY ROAD
14	Т	Turn left onto COMMERCIAL STREET
15	Т	Continue - Grit COMMERCIAL STREET
16	Т	Continue - Grit PENGAM ROAD. End of salting
17	F	Turn right - Travel HIGH STREET. Grit
18	Т	Turn right - Grit A469
19	Т	Continue - Grit A469 to BRITANNIA LINK ROAD ROUNDABOUT
20	Т	Enter roundabout and take exit 2 to BRITANNIA LINK ROAD
21	Т	Continue - Grit BRITANNIA LINK ROAD
22	Т	Enter roundabout and take exit 3 to BRITANNIA LINK ROAD. End of salting
23	F	Continue - Travel BRITANNIA LINK ROAD. Grit
24	Т	Enter roundabout gritting and take exit 2 to A469 ANGEL WAY
25	Т	Enter roundabout and take exit 1 to BARGOED NEWYDD VIADUCT
26	Т	Continue - Grit BARGOED NEWYDD VIADUCT.
27	Т	Continue onto GILFACH STREET
28	Т	Continue onto CARDIFF ROAD
29	Т	Continue onto HANBURY ROAD
30	Т	Continue onto HIGH STREET
31	Т	Continue onto UPPER HIGH STREET
32	Т	At roundabout take exit 2 to ST GWLADYS WAY
33	Т	At roundabout take exit 1 to STATION ROAD
34	Т	Continue - Grit STATION ROAD
35	Т	Turn left onto FACTORY ROAD
36	Т	Continue - Grit FACTORY ROAD.
37	Т	Continue - Grit FACTORY ROAD to BRITHDIR CEMETARY. End of salting
38	F	U-turn - Travel BRITHDIR CEMETARY to FACTORY ROAD. Grit
39	T	Turn right - Grit GROESFAEN TERRACE
40	T	Continue - Grit GROESFAEN TERRACE
41	T	Continue - Grit GROESFAEN TERRACE to NEW ROAD
42	T	Continue - Grit NEW ROAD
43	T	Turn left onto BAILEY STREET
44	Т	Continue - Grit BAILEY STREET to GLENVIEW TERRACE
45	Т	Continue - Grit GLENVIEW TERRACE to BROOKE ROW. End of salting.
46	F	Continue - Travel BROOKE ROW to PONTLOTTYN ROAD.
47	F	Turn Left onto SOUTH TUNNEL ROAD.
48	F	Continue - Travel SOUTH TUNNEL ROAD to TUNNEL TAVERN.
49 50	F	Turn Left onto TUNNEL TAVERN. Grit.
50	T	Continue - Grit TUNNEL TAVERN to GLENVIEW TERRACE
51 52	T	At crossroads Turn Right onto GELLIGAER MOUNTAIN ROAD
52 52	T T	Bear right - Grit MOUNTAIN ROAD.
53 54	T T	Turn left - Grit Minor Road to WESTERN DRIVE
54	I	Turn right onto WESTERN DRIVE
		20

	-	
55	T	Continue - Grit WESTERN DRIVE TO HILLSIDE PARK
56	T	Turn left onto HILLSIDE PARK
57	T	Continue - Grit HILLSIDE PARK
58	T	Turn left onto PARK DRIVE
59	T	Continue - Grit PARK DRIVE
60	T	Turn left onto HEOL FARGOED
61	T	Continue - Grit HEOL FARGOED
62	Т	Turn left onto WESTERN DRIVE
63	Т	Continue - Grit WESTERN DRIVE to CROSS STREET
64	Т	Continue - Grit CROSS STREET
65	Т	Turn left onto PARK PLACE
66	Т	Continue - Grit PARK PLACE to CARDIFF ROAD
67	Т	Turn left onto CARDIFF ROAD
68	Т	Continue - Grit CARDIFF ROAD to GILFACH STREET
69	Т	Turn right onto GILFACH STREET.
70	Т	Turn right onto GILFACH STREET.
71	Т	Continue - Grit GILFACH STREET to CARDIFF ROAD. End of salting.
72	F	Turn right - Travel CARDIFF ROAD to PARK DRIVE. Grit
73	Т	Turn right - Grit PARK DRIVE
74	Т	Continue - Grit PARK DRIVE
75	Т	Turn left onto HEOL PENCARREG
76	Т	Continue - Grit roundabout
77	Т	Continue - Grit HEOL PENCARREG to PARK DRIVE
78	Т	Turn left onto PARK DRIVE
79	Ť	Continue - Grit PARK DRIVE to WESTERN DRIVE
80	Ť	Turn right - Grit WESTERN DRIVE to MOORLAND ROAD
81	Ť	Continue - Grit MOORLAND ROAD to MCDONNEL ROAD
82	Ť	Continue - Grit MCDONNEL ROAD
83	Ť	Turn left on ST GWLADYS AVENUE
84	T	Continue - Grit ST GWLADYS AVENUE to HEOLDDU GROVE
85	T	
		Continue - Grit HEOLDDU GROVE. End of salting
86 97	F	Turn left - Travel MCDONNEL ROAD to HEOLDDU ROAD. Grit
87 80	T	Continue - Grit HEOLDDU ROAD
88	T	Turn left onto CHURCH PLACE
89	T	Continue - Grit CHURCH PLACE
90	T	Turn right onto BRISTOL TERRACE
91	T	At roundabout take exit 1 to ST GWLADYS WAY.
92	T	At roundabout take exit 1 to STATION ROAD. End of salting
93	F	Continue - Travel STATION ROAD to BRIDGE STREET. Grit
94	Т	Continue - Grit BRIDGE STREET to BEDWELLTY ROAD
95	Т	Turn left onto CWMSYFIOG ROAD.
96	Т	Continue - Grit CWMSYFIOG ROAD to UPPER ROAD. End of salting.
97	F	Continue - Travel WHITE ROSE WAY
98	F	Turn right onto CROSS STREET.
99	F	Continue - Travel CROSS STREET to SCHOOL STREET
100	F	Turn right onto BEDWELLTY ROAD. Grit
101	Т	Continue - Grit BEDWELLTY ROAD to BEDLWYN ROAD
102	Т	Turn left onto BEDLWYN ROAD
103	Т	Continue - Grit BEDLWYN ROAD to BUS TURNING AREA. End of Salting.
104	F	U Turn - Travel BEDLWYN ROAD to BEDWELLTY ROAD. Grit
105	Т	Turn Left onto BEDWELLTY ROAD
106	Т	Continue - Grit BEDWELLTY ROAD to MARKHAM
107	Т	At roundabout take exit 2 to HEOL Y BEDW-HIRION
108	Ť	Turn left onto HEOL TYNEWYDD
109	Ť	Continue - Grit HEOL TYNEWYDD
110	Ť	Turn left onto A4048
111	Ť	Continue - Grit A4048 to ABERNANT ROAD.
	•	

112	Т	Turn left onto ABERNANT ROAD
113	Т	Continue - Grit ABERNANT ROAD to roundabout
114	Т	Enter roundabout take exit 1 to ABERNANT ROAD
115	Т	Continue - Grit ABERNANT ROAD
116	Т	Turn left onto LINK ROAD. End of salting.
117	F	Turn left onto ABERNANT ROAD
118	F	Turn left onto A4048
119	F	Turn left onto ABERNANT ROAD
120	F	Continue - Travel ABERNANT ROAD.
120	F	Enter roundabout take exit 2 to PANTYCEFN ROAD. Grit
122	, T	Continue - Grit PANTYCEFN ROAD
122	T	At roundabout take exit 2 to B4511 to BEDWELLTY ROAD
124	Т	Continue - Grit BEDWELLTY ROAD
125	T	Turn right onto SANNAN STREET
126	T	Continue - Grit SANNAN STREET
127	T	Turn right onto HIGHFIELD CRESCENT
128	Т	Turn right onto HIGHFIELD CRESCENT
129	Т	Turn left onto LEWIS STREET
130	Т	Continue to COMMIN ROAD
131	Т	U-turn Grit LEWIS STREET
132	Т	Turn right onto HIGHFIELD CRESCENT
133	Т	Turn right onto LEWIS STREET
134	Т	Turn right onto PANTYFID ROAD
135	Т	Turn right onto BEDWELLTY ROAD
136	Т	Continue - Grit BEDWELLTY ROAD to COMMERCIAL STREET
137	Т	Turn right onto COMMIN ROAD
138	Т	Continue - Grit COMMIN ROAD
139	Т	Bear left - Grit COMMIN ROAD
140	Т	Continue - Grit COMMIN ROAD to UPPER ROAD. End of salting
141	F	Turn left onto UPPER ROAD
142	F	Turn left onto CWMSYFIOG ROAD.
143	F	Continue - Travel CWMSYFIOG ROAD. Grit
144	T	Continue - Grit COMMERCIAL STREET
145	Ť	Turn right onto ABERBARGOED LINK ROAD.
146	Ť	Continue - Grit ABERBARGOED LINK ROAD.
147	Ť	Enter roundabout gritting and take exit 3 to ANGEL WAY
148	T	Continue - Grit ANGEL WAY
149	T	At roundabout complete a circuit and take exit 1 to BUS STATION
150	T	At roundabout take exit to PARK & RIDE
150	T	At roundabout take exit 1 to A469 ANGEL WAY
	T	
152	F	At roundabout take exit 3 to BARGOED NEWYDD VIADUCT. End of salting
153		Continue - Travel BARGOED NEWYDD VIADUCT.
154	F	Turn left onto GILFACH STREET
155	F	Continue - Travel GILAFCH STREET to PARK PLACE
156	F	Continue - Travel PARK PLACE to GWERTHONOR PLACE. Grit
157	T	Continue - Grit GWERTHONOR PLACE to A469
158	Т	Turn right onto A469. End of salting
159	Т	Continue - Travel A469
160	F	Turn left onto HIGH STREET
161	F	Turn right onto A4049
162	F	Continue travel A4049 to OAK TERRACE
163	F	Turn left onto B4254
164	F	At roundabout take exit 3 to B4254
165	F	Continue - Travel B4254 to PENMAEN ROAD INDUSTRIAL ESTATE
166	F	Turn left onto PENMAEN ROAD INDUSTRIAL ESTATE
167	F	Turn left into DEPOT

# Pre-salting Route 2 (Penmaen)



Pre-salting Route 3 (Penmaen)

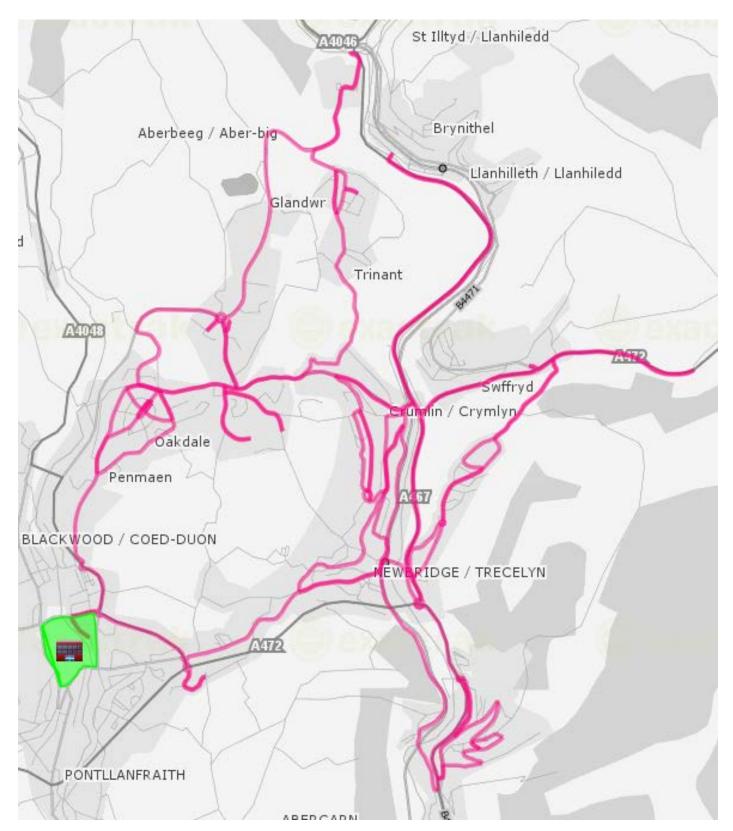
No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn right - Travel B4254
3	F	At roundabout take exit 1 onto A4048. Grit
4	Т	Enter roundabout gritting take exit 3 to OAKDALE
5	Т	Continue - Grit OAKDALE TERRACE
6	Т	Continue - Grit PENMAEN ROAD
7	Т	Continue - Grit PENRHIW TERRACE
8	Т	Continue - Grit SYR DAFYDD AVENUE
9	Т	Turn right onto MAES Y GARN ROAD
10	Т	Continue - Grit MAES Y GARN ROAD to LLWYN ON CRESCENT
11	Т	Continue - Grit LLWYN ON LANE to GROVESIDE ROAD
12	Т	Turn right onto PENMAEN ROAD
13	Т	Turn right onto CENTRAL AVENUE
14	Т	Turn left onto PENRHIW AVENUE
15	Т	Turn right onto ABERCONWY PLACE
16	Т	Turn right onto MARKHAM CRESCENT
17	Т	Turn right onto ABERCONWY PLACE
18	Т	Turn right onto PENRHIW AVENUE
19	Т	Turn right onto ABERCONWY PLACE
20	Т	Turn right onto MARKHAM CRESCENT
21	Т	Turn left onto PENMAEN AVENUE
22	Т	Turn left onto SYR DAFYDD AVENUE
23	Т	Turn left onto BEECH GROVE
24	Т	Turn left onto ABERCONWY PLACE
25	Т	Turn right onto MARKHAM CRESCENT
26	Т	Turn right onto ABERCONWY PLACE
27	Т	Turn left onto BEECH GROVE
28	Т	Continue grit BEECH GROVE
29	Т	Turn left onto MAES Y GARN ROAD
30	Т	Turn right onto SYR DAFYDD AVENUE
31	Т	Continue - Grit SYR-DAFYDD AVENUE to BRYN HOWARD TERRACE
32	Т	Continue - Grit BRYN HOWARD TERRCAE
33	Т	Turn right - Grit CLOS PENTREGROES. End of salting
34	F	U-turn - Travel CLOS PENTREGROES. Grit
35	Т	Turn right - Grit LON MAES YR HAF. End of salting
36	F	U-turn - Travel LON MAES YR HAF
37	F	Continue - Travel LON MAES YR HAF
38	F	Turn right - Travel CLOS PENTRE GROES and then Turn right. Grit
39	Т	Turn right on to KENDON ROAD
40	Т	Turn left onto PARKWAY
41	Т	Continue - Grit PARKWAY.
42	T	Turn right - Grit CHERRY TREE HOUSE.
43	T	U-turn - Grit to PARKWAY
44	T	Turn right onto PARKWAY
45	T	At roundabout make a complete circuit and take exit 1 to BRYN BRITHDIR.
46	T	Continue - Grit BRYN BRITHDIR. End of salting
47	F	U turn - Travel BRYN BRITHDIR
48	F	Travel - at roundabout take exit 1 to COAL YARD RISE. Grit
49	T	Turn left -Grit WATERLOO
50	T	Continue - Grit WATERLOO
51	Т	Turn left onto SYR DAFYDD AVENUE. End of salting
52	F	Continue - Travel SYR-DAFYDD AVENUE to BRYN HOWARD TERRACE
53	F	Continue - Travel BRYN HOWARD TERRACE. Grit
54	Т	Continue - Grit B4251 KENDON ROAD

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55	T	Turn left - Grit TRINANT ROAD
56	Т	Continue - Grit TRINANT ROAD
57	Т	Continue - Grit TRINANT ROAD to PENTWYN ROAD
58	Т	Continue - Grit PENTWYN ROAD
59	Т	Continue - Grit PENTWYN ROAD to PENTWYN TERRACE
60	Т	Turn right onto TRINANT TERRACE
61	Т	Continue - Grit TRINANT TERRACE
62	Т	Turn left - Grit CONWAY ROAD
63	Т	U-turn - Grit CONWAY ROAD to TRINANT TERRACE
64	Т	Turn left - Grit TRINANT TERRACE TO PENTWYN TERRACE
65	Т	Turn right - Grit PENTWYN TERRACE
66	Т	Continue - Grit PENTWYN TERRACE to CWM NANT GWYNT.
67	Т	Turn right onto CHRISTCHURCH ROAD
68	т	Continue - Grit CHRISTCHURCH ROAD to PANTDDU ROAD
69	Ť	Continue - Grit PANTDDU ROAD. End of salting
70	F	U-turn - Travel PANTDDU ROAD to PENTRAPEOD ROAD. Grit
71	Ť	Continue - Grit PENTRAPEOD ROAD to PARKWAY
72	Ť	At roundabout take exit 1 on to PARKWAY. End of salting
73	F	Travel - PARKWAY to KENDON ROAD
74	, Т	Turn left - Travel KENDON ROAD
	-	
75 76	F T	Travel KENDON ROAD TO TRINANT ROAD. Grit
76 	-	Continue - Grit KENDON ROAD to A467
77 70	T	Turn left onto A467
78 70	Т	Turn left - Grit A467 to End of Salting
79 80	F F	Continue - Travel A467 to GLANDWR INDUSTRIAL ESTATE and then Turn right
80 81	Г	U-turn - Travel A467 to Start of Salting Continue - Grit A467.
82	T	Turn left onto A472 HAFODYRYNYS ROAD
82 83	T	Turn left onto SWFFRYD ROAD
83 84	Ť	U-turn - Grit to A472
85	Ť	Turn left onto A472 to Boundary. End of salting
86	F	U turn - Travel A472 to HERBERT TERRACE. Grit
87	, T	Continue - Grit HERBERT TERRACE to HAFODYRYNYS ROAD
88	Ť	Turn left onto A467
89	Ť	Continue - Grit A467.
90	Ť	Turn left onto CENTRAL AVENUE
91	Ť	Continue - Grit CENTRAL AVENUE
92	Ť	At roundabout complete a circuit and take exit 2 to OLD PANT ROAD
93	Ť	Continue - Grit OLD PANT ROAD
94	Т	Turn right onto PANT ROAD
95	Т	Continue - Grit PANT ROAD. End of salting.
96	F	U turn - Travel PANT ROAD. Grit
97	Т	Turn right - Grit BOUNDARY ROAD
98	Т	Continue - Grit BOUNDARY ROAD. End of salting.
99	F	Turn right - Travel OLD PANT ROAD. Grit
100	Т	Enter roundabout salting take exit 3 to OLD PANT ROAD
101	Т	Continue - Grit OLD PANT ROAD
102	Т	Turn right onto CENTRAL AVENUE
103	Т	Turn left onto A467
104	Т	Enter roundabout complete a circuit and take exit 4 back to A467
105	T	Continue - Grit A467.
106	T	Turn left onto KENDON ROAD
107	T	Turn left onto MAIN STREET
108	T F	U-turn at HILLSIDE. End of salting
109	Г	Travel - MAIN STREET

110	F	Turn left - Travel KENDON ROAD. Grit
111	Т	Turn left - Grit RHIW LEVEL ROAD
112	Т	Continue - Grit RHIW LEVEL ROAD to PARRY TERRACE
113	Т	Turn left onto TREOWEN ROAD
114	Т	Continue - Grit TREOWEN ROAD
115	Т	Turn right onto ELIDYR ROAD
116	Ť	Continue on to FFLORENS ROAD
117	, T	Turn right - Grit FFLORENS ROAD to ROYAL CRESCENT
118	Ť	Continue - Grit ROYAL CRESCENT to FFLORENS ROAD
119	T	Continue - Grit FFLORENS ROAD to PARRY TERRACE
120	T	Turn right - Grit PARRY TERRACE. End of salting
121	F	Turn right - Travel TREOWEN ROAD. Grit
122	Т	Turn left - Grit THE CIRCLE
123	Т	Turn right - Grit THE CIRCLE
124	Т	Bear right - Grit THE CIRCLE and then Turn right. Grit
125	Т	Turn right on to THE CIRCLE. Grit
126	Т	Bear left - Grit THE CIRCLE to PARK ROAD
127	Т	Turn left - Grit PARK ROAD to COMMERCIAL ROAD
128	Т	Bear left - Grit COMMERCIAL ROAD to HILLSIDE
129	T	Turn right - Grit HILLSIDE to MAIN STREET
130	Ť	Turn right - Grit MAIN STREET to MINING SCHOOL HILL
131	Ť	Turn right - Grit MINING SCHOOL HILL to PARK ROAD
132	Ť	Continue - Grit PARK ROAD to NEW BRYNGWYN ROAD
133	T	Continue - Grit NEW BRYNGWYN ROAD to BRYNGWYN ROAD
134	T	Turn left onto BRYNGWYN ROAD
135	Т	Continue - Grit BRYNGWYN ROAD to HIGH STREET
136	Т	Turn left onto HIGH STREET
137	Т	Turn left onto NORTH ROAD
138	Т	Turn left onto ASHFIELD ROAD
139	Т	Continue - Grit ASHFIELD ROAD. End of salting
140	F	Turn right - Travel PARK Road to MINING SCHOOL HILL. Grit
141	Т	Turn right - Grit NORTH ROAD
142	Т	Continue - Grit NORTH ROAD to TRAFFIC SIGNALS
143	т	Turn right onto HIGH STREET
144	Т	Turn left onto CELYNEN ROAD
145	Ť	Continue - Grit CELYNEN ROAD to LLANOVER STREET
146	, T	Continue - Grit LLANOVER STREET to ISLWYN STREET
147	, Т	Continue - Grit ISLWYN STREET to BRIDGE STREET
	Ť	
148		Continue - Grit BRIDGE STREET
149	T	Turn leftt onto A467
150	Т	Turn right onto ABERCARN LINK ROAD
151	Т	Turn left onto HIGH STREET
152	Т	Turn right onto GWYDDON ROAD
153	Т	Turn right - Grit GWYDDON ROAD
154	Т	Continue - Grit GWYDDON ROAD
155	Т	Turn left - Grit COED MOELFA ROAD to LLAN-FACH ROAD
156	Т	Turn right - Grit LLAN-FACH ROAD to BRYN ROAD
157	Т	Turn left - Grit BRYN ROAD to TWYN ROAD
158	Т	Turn right - Grit TWYN ROAD to LLAN-FACH ROAD
159	Т	Turn right - Grit LLAN-FACH ROAD and then Turn right
160	Ť	Turn right on to BRYN ROAD
161	Ť	Turn right - Grit BRYN ROAD to PEN-RHIW TERRACE
162	, T	Continue - Grit PEN-RHIW TERRACE to CEMETARY ROAD
163	Ť	Bear left - Grit CEMETARY ROAD
	Ť	
164 165		Turn right onto CHAPEL OF EASE
165	Т	At roundabout complete a circuit and take exit 4 onto CHAPEL OF EASE
166	Т	Continue - Grit CHAPEL OF EASE to HIGH STREET. End of salting

167	F	Travel HIGH STREET
168	F	Turn right onto ABERCARN LINK ROAD
169	F	Turn right onto A467.
170	F	Continue - Travel A467
171	F	At roundabout take exit 2 to A467
172	F	Continue - Travel A467. Grit
173	т	Enter roundabout gritting take exit 2 to BRIDGE STREET
174	Т	Turn left - Grit PARK & RIDE
175	Т	Turn left onto BRIDGE STREET
176	Т	Bear left onto HIGH STREET. End of salting
177	F	Continue - Travel HIGH STREET to BRYNGWYN ROAD. Grit
178	Т	Continue - Grit BRYNWYN ROAD to NEWBRIDGE ROAD
179	Т	Continue - Grit NEWBRIDGE ROAD to HIGH STREET
180	Т	Continue - Grit HIGH STREET to NEWBRIDGE ROAD
181	Т	At roundabout take exit 1 to A472 LINK ROAD
182	Т	At roundabout take exit 2 on to Minor Road
183	Т	Continue - Grit NAILERS ARMS LINK ROAD. End of salting
184	F	U-turn - Travel NAILERS ARMS LINK ROAD. Grit
185	Т	Continue - Enter roundabout salting and take exit 2 on to A4048
186	Т	At roundabout take exit 2 on to A4048
187	Т	Continue - Grit A4048. End of salting
188	F	At roundabout take exit 2 onto B4254
189	F	Turn left into PENMAEN ROAD INDUSTRIAL ESTATE
190	F	Turn left into DEPOT

# Pre-salting Route 3 (Penmaen)



# Pre-salting Route 4 (Penmaen)

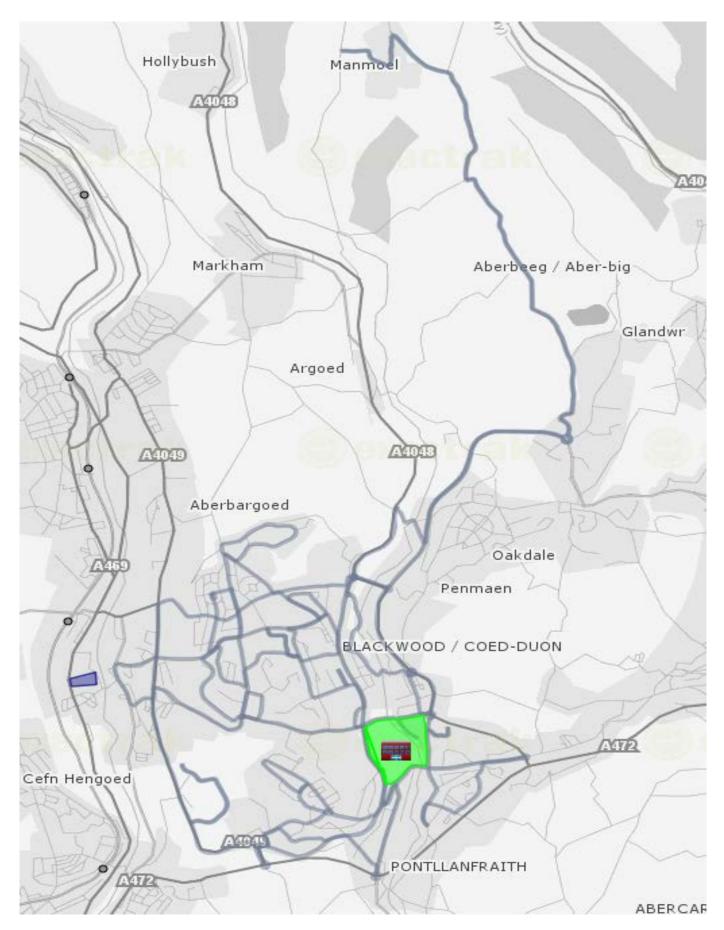
No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn right - Travel B4254. Grit
3	Т	Enter roundabout salting complete a circuit and take exit 1 onto A4048
4	Т	At roundabout complete a circuit and take exit 2 onto A4048
5	Т	At roundabout complete a circuit and take exit 1 onto A4048
6	Т	At roundabout complete a circuit and take exit 4 onto A4048
7	Т	Continue - Grit A4048
8	Т	At roundabout complete a circuit and take exit 1 onto B4251
9	Т	Continue - Grit B4251
10	Т	At roundabout complete a circuit and take exit 1 onto LON GELLIDEG
11	Т	Turn right onto MANMOEL ROAD
12	Т	Continue - Grit MANMOEL ROAD
13	Т	Turn left - Grit MANMOEL VILLAGE
14	Т	Turn right - Grit LLANERCH LANE. End of salting
15	F	U-turn - Travel to LLANERCH LANE
16	F	Turn left - Travel MANMOEL VILLAGE
17	F	Turn right - Travel MANMOEL ROAD
18	F	Turn left - Travel LON GELLIDEG
19	F	Enter roundabout travelling and take exit 4 onto B4251
20	F	Continue - Travel B4251. Grit
21	Т	Turn right - Grit OAKDALE COMP LANE
22	T	Continue - Grit OAKDALE COMP LANE to ROCK FACH LANE
23	T	Continue - Grit ROCK FACH LANE
24	T	Turn Left onto A4048
25	T	At roundabout take exit 3 onto SUNNYBANK ROAD.
26	T	
27	T	At roundabout take exit 2 to TWYNYFFALD ROAD
28	T	Turn right onto GREENWOOD ROAD
29	T	Turn right onto BEDWELLTY ROAD
30	T	Turn right onto HEOL PIT Y CEILIOGOD
31	T	Turn left onto BEAUMARIS WAY Continue - Grit BEAUMARIS WAY
32 33	T T	Turn right onto GREENWOOD ROAD
33 34	T	Turn left onto BEDWELLTY ROAD
34 35	T	Turn right onto WAUNBORFA ROAD
36	T	Turn right onto CEFN FFOREST AVENUE
37	T	Turn right onto CENTRAL AVENUE
38	T	Complete a loop of the SHOPPING AREA
39	Ť	Turn right onto CENTRAL AVENUE
40	Ť	Turn right onto BEDWELLTY ROAD
41	Ť	Continue - Grit BEDWELLTY ROAD to BRYN ROAD
42	Ť	Turn right onto PWLLGLAS ROAD
43	T	Continue - Grit PWLLGLAS ROAD to FAIRVIEW
44	T	Continue - Grit FAIRVIEW
45	Т	Turn right onto PENGAM ROAD
46	Т	Turn right onto WAUNBORFA ROAD
47	Т	Turn right onto CEFN FFOREST AVENUE
48	Т	Turn left onto FAIRVIEW. End of salting
49	F	Continue - Travel FAIRVIEW to PWLLGLAS ROAD
50	F	Turn left onto BRYN ROAD. Grit
51	Т	Turn right - Grit TWYNYFFALD ROAD
52	т	At roundabout take exit 2 to CEFN ROAD
53	Т	Turn left onto SOUTHVIEW ROAD
54	Т	Turn right - Grit PENTWYN ROAD
		20

	-	
55	T	Turn right onto HIGH STREET
56	T	Continue - Grit HIGH STREET
57	T	Turn right onto LIBANUS ROAD
58	Т	Turn left onto LIBANUS ROAD
59	Т	Turn left onto HIGH STREET
60	Т	At roundabout take exit 1 to GORDON ROAD
61	Т	Continue - Complete a loop of the BUS STATION.
62	Т	Turn right onto GORDON ROAD
63	Т	Continue - Grit GORDON ROAD
64	Т	Turn right onto ALBANY ROAD
65	Т	Continue - Grit ALBANY ROAD to ATTLEE ROAD
66	т	Turn left onto APOLLO WAY
67	Т	Turn right onto CHARTIST WAY
68	T	At roundabout take exit 3 onto BLOOMFIELD ROAD
69	Ť	Continue - Grit BLOOMFIELD ROAD to SOUTHVIEW ROAD.
70	Ť	Turn left onto LEWIS LEWIS AVENUE
70	Ť	Continue - Grit LEWIS LEWIS AVENUE. End of salting
	F	•
72		Turn left onto CEFN ROAD
73	F T	Turn right onto BLOOMFIELD ROAD. Grit
74	T	Turn left onto ATTLEE ROAD.
75	T	Continue - Grit ATTLEE ROAD to APOLLO WAY. End of salting.
76	Т	Turn right onto ATTLEE ROAD. End of salting
77	F	Travel - Turn right onto APOLLO WAY
78	F	Travel - Turn right onto CHARTIST WAY
79	F	Continue - Travel CHARTIST WAY. Grit
80	Т	Enter roundabout salting and take exit 1 to BLOOMFIELD ROAD
81	Т	Continue - Grit BLOOMFIELD ROAD
82	Т	Turn left onto BRYN ROAD
83	Т	Continue - Grit BRYN ROAD
84	Т	At roundabout take exit 1 to HIGHFIELDS WAY
85	Т	Turn left onto COED LIBANUS
86	Т	Turn left onto CLOS COED BACH
87	Т	Turn left onto BRYN ROAD
88	T	At roundabout take exit 3 to HEOL Y DDERWEN
89	Ť	Continue - Grit HEOL Y DDERWEN
90	Ť	Turn right onto FAIRVIEW
91	Ť	Turn right onto ELGAR CLOSE
92	Ť	Continue - Grit ELGAR CLOSE TO GRANGE HILL. End of salting
	F	Turn left onto BRYN ROAD
93		
94	F T	Continue - Travel BRYN ROAD. Grit
95	T T	Turn right - Grit APOLLO WAY
96	T	Continue - Grit APOLLO WAY
97	T	Turn right onto ATTLEE ROAD
98	Т	Turn left onto WOODBINE ROAD
99	Т	Continue - Grit WOODBINE ROAD
100	Т	Turn left onto HIGH STREET
101	Т	Continue - Grit HIGH STREET
102	Т	At roundabout complete a circuit and take exit 1 to HIGH STREET
103	Т	At roundabout take exit 4 to HIGH STREET
104	Т	At roundabout take exit 1 to CLIFF ROAD
105	Т	At roundabout take exit 1 to CLIFF ROAD
106	Т	At roundabout take exit 1 to HALL STREET
107	Т	Continue - Grit HALL STREET to BRIDGE STREET
108	Т	Continue - Grit BRIDGE STREET to PARK TERRACE
109	T	Continue - Grit PARK TERRACE
110	Ť	Turn left onto WOODFIELD TERRACE
111	Ť	At roundabout take exit 4 to WOODFIELD TERRACE

112	т	Continue - Grit WOODFIELD TERRACE
112	T	Turn Left onto B4254
113	T	At roundabout take exit 3 to PENMAEN ROAD
114	T	Turn left - Grit WOODFIELD SIDE BUSINESS CENTRE
115	T	U-turn - Grit WOODFIELD SIDE BUSINESS CENTRE U-turn - Grit WOODFIELD SIDE BUSINESS CENTRE to PENMAEN ROAD
		Turn left - Grit B4251 to LLANARTH ROAD
117	Т	
118	T	Continue - Grit LLANARTH ROAD to CWMALSIE CRESCENT
119	Т	Continue - Grit CWMALSIE CRESCENT to MILL ROAD. End of Salting
120	F	U-turn - Travel CWMALSIE CRESCENT to WOODLAND ROAD. Grit
121	Т	Turn right - Grit WOODLAND ROAD to UPLAND ROAD
122	Т	Turn left - Grit UPLAND ROAD
123	T	Continue - Grit UPLAND ROAD to MILLBROOK ROAD
124	Т	Turn right - Grit MILLBROOK ROAD to NEWBRIDGE ROAD
125	T	Turn right - Grit NEWBRIDGE ROAD
126	Т	At roundabout take exit 4 back to NEWBRIDGE ROAD
127	Т	Continue - Grit NEWBRIDGE ROAD to COMMERCIAL STREET
128	Т	Continue - Grit COMMERCAILA STREET.
129	Т	At roundabout take exit 1 to SIR IVORS ROAD
130	Т	Continue - Grit SIR IVORS ROAD
131	Т	At roundabout complete a circuit and take exit 1 to A472
132	Т	Continue - Grit A472
133	Т	At roundabout complete a circuit and take exit 4 back to A472
134	Т	Continue - Grit A472
135	Т	At roundabout take exit 3 to SIR IVORS ROAD. End of salting
136	F	Travel - Turn left onto GELLI LANE. Grit
137	Т	Turn left - Grit BRYN ROAD
138	Т	Continue - Grit BRYN ROAD
139	Т	Turn right onto CROWN LANE
140	Т	Bear right onto BRYN LANE
141	Т	Continue - Grit BRYN LANE to RUSHMERE ROAD
142	Т	Continue - Grit RUSHMERE ROAD to THE CIRCLE
143	Т	At roundabout complete a circuit and take exit 2 on to ST MARY'S ROAD
144	Т	Bear left - Grit ST MARY'S ROAD to FLEUR-DE-LYS AVENUE
145	Т	Turn left - Grit FLEUR-DE-LYS AVENUE to HIGHMEAD
146	Т	Continue - Grit HIGHMEAD to ST MARY'S ROAD
147	Т	Turn left - Grit ST MARY'S ROAD to FLEUR-DE-LYS AVENUE
148	Т	Turn right - Grit FLEUR-DE-LYS AVENUE to THE CIRCLE
149	Т	At roundabout take exit 3 to MANOR ROAD
150	Т	Continue - Grit MANOR ROAD
151	Т	Turn left onto BRYN ROAD
152	Т	At roundabout complete a circuit and take exit 1 to BLACKWOOD ROAD
153	Т	At roundabout take exit 3 to CIVIC CENTRE
154	Т	Continue - Grit CIVIC CENTRE. End of salting
155	F	U turn - Travel CIVIC CENTRE to roundabout
156	F	At roundabout take exit 1 to BLACKWOOD ROAD. Grit
157	Т	Enter roundabout gritting take exit 1 to COMMERCIAL STREET
158	Т	At roundabout take exit 3 back to COMMERCIAL STREET
159	Т	At roundabout take exit 1 to BRYN ROAD
160	T	Continue - Grit BRYN ROAD
161	Ť	Turn right onto FOREST HILL
162	Ť	Continue - Grit FOREST HILL. End of salting
163	F	Turn left - Travel BRYN LANE
164	F	Bear left - Travel CROWN LANE. Grit
165	, Т	Turn Right - Grit BRYN ROAD
166	T	At roundabout complete a circuit and take exit 1 to A472
167	T	At roundabout complete a circuit and take exit 1 to A472 At roundabout complete a circuit and take exit 4 to A472
168	T	At roundabout take exit 1 to A4049
100	I	הו זטעוועמטטעו ומדע כאור ז וט אייטיאי

- 169 T Continue Grit A4049
- 170 T Turn right onto HAWTIN PARK
- 171 T Continue Grit HAWTIN PARK. End of salting
- 172 F U turn Travel HAWTIN PARK. Grit
- 173 T Turn right onto A4049
- 174 T Continue Grit A4049. End of salting.
- 175 F Turn left Travel ST DAVIDS ROAD
- 176 F Turn left Travel HIGH STREET. Grit
- 177 T Turn left Grit PLAS ROAD
- 178 T Continue Grit PLAS ROAD
- 179 T Turn left Grit A4049
- 180 T Turn right Grit B4254
- 181 T Continue Grit B4254
- 182 T At roundabout complete a circuit and take exit 3 to HIGHFIELDS WAY
- 183 T Continue Grit HIGHFIELDS WAY
- 184 T Turn right onto BLACKWOOD ROAD
- 185 T At roundabout take exit 4 to BLACKWOOD ROAD
- 186 T Turn right onto B4254
- 187 T Continue Travel B4254 to PENMAEN ROAD INDUSTRIAL ESTATE
- 188 T Turn right onto PENMAEN ROAD INDUSTRIAL ESTATE
- 189 T Turn left into DEPOT

# Pre-salting Route 4 (Penmaen)



Pre-salting Route 5 (Penmaen)

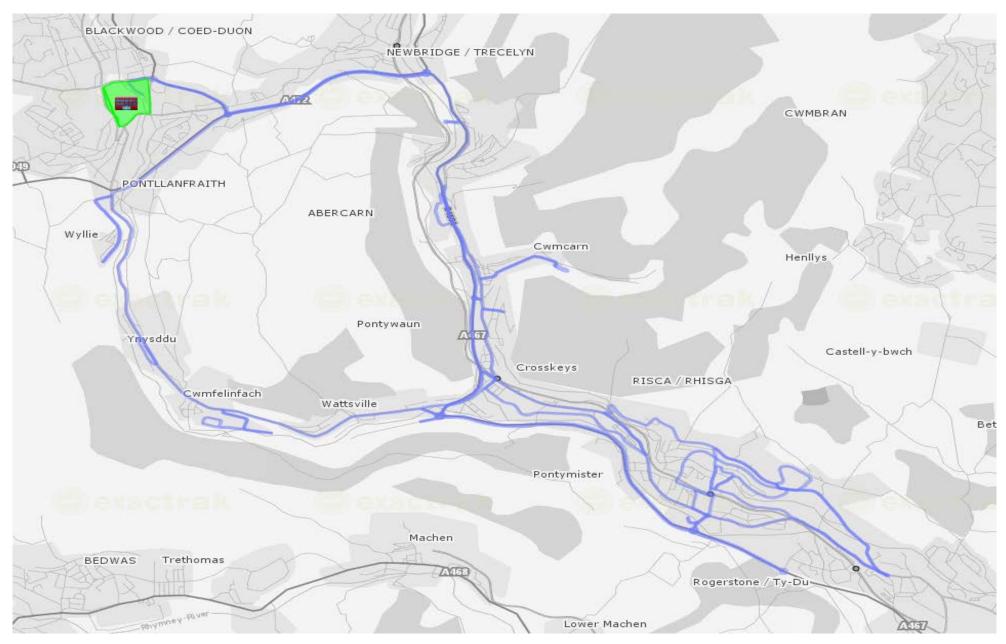
No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn right - Travel B4254
3	F	At roundabout take exit 2 onto A4048
4	F	At roundabout take exit 2 onto A4048
5	F	At roundabout take exit 3 onto A472. Grit
6	т	Enter roundabout salting and take exit 1 onto B4251
7	т	Turn right onto HEOLDDU ROAD
8	т	Turn left - Grit WYLLIE ROAD to GLANHOWY ROAD
9	т	Continue - Grit GLANHOWY ROAD to End of Salting
10	F	U-turn - Travel GLANHOWY ROAD to WYLLIE ROAD
11	F	Continue - Travel WYLLIE ROAD to HEOLDDU ROAD
12	F	Turn right - Travel HEOLDDU ROAD to B4251. Grit
13	Т	Turn right - Grit B4251
14	Т	Continue - Grit B4251
15	Т	Turn right onto HIGH STREET LINK
16	Т	Continue - Grit HIGH STREET LINK to HIGH STREET
17	Т	Continue - Grit HIGH STREET LINK to HIGH STREET
18	Т	Turn right onto B4251
19	Т	Continue - Grit B4251
20	Т	Continue - Grit B4251 to MAINDEE ROAD
21	Т	Turn right onto GREENMEADOW ROAD
22	Т	Turn left onto HEOL GLAN-YR-AFON
23	Т	U-turn - Grit HEOL GLAN-YR-AFON
24	Т	Continue - Grit HEOL GLAN-YR-AFON to HEOL TIR TON.
25	Т	Continue - Grit HEOL TIR TON.
26	Т	Turn left onto GREENMEADOW ROAD
27	Т	Turn right onto B4251
28	Т	Continue - Grit B4251 to ISLWYN ROAD
29	Т	At roundabout take exit 4 onto ISLWYN ROAD
30	Т	Turn right onto GLADSTONE STREET
31	Т	Continue - Grit GLADSTONE STREET to HIGH STREET
32	Т	Continue - Grit HIGH STREET to TWYNCARN ROAD
33	Т	Turn right onto SILVER STREET. End of salting
34	F	U-turn - Travel SILVER STREET to TWYNCARN ROAD. Grit
35	Т	Turn right - Grit TWYNCARN ROAD
36	Т	At roundabout take exit 4 to TWYNCARN ROAD
37	Т	Turn left onto NEWPORT ROAD
38	Т	Turn right onto IVOR STREET
39	Т	Turn left - Grit BERNARD STREET
40	Т	Continue - Grit NANTCARN ROAD
41	Т	Turn right - Grit NANTCARN ROAD
42	T	Turn left - Grit VISITOR CENTRE ACCESS ROAD. End of Salting
43	F	U-turn - Travel VISITOR CENTRE ACCESS ROAD to NANTCARN ROAD
44	F	Turn right - Travel NANTCARN ROAD
45	F	Turn left - Travel NANTCARN ROAD
46	F	Continue - Travel BERNARD STREET
47	F	Turn right - Travel IVOR STREET. Grit
48	T	Turn right - Grit B4591 NEWPORT ROAD
49	T	Continue - Grit NEWPORT ROAD
50	T	Turn left onto ABERCARN LINK ROAD
51	T	Turn left onto A467
52	T	Continue - Grit A467
53	T	At roundabout complete a circuit and take exit 2 to A467
54	Т	At roundabout complete a circuit and take exit 1 to A467

55	Т	At roundabout complete a circuit and take exit 2 to A467
56	Т	At roundabout complete a circuit and take exit 3 to A467
57	Т	At roundabout take exit 2 to A467
58	Т	At roundabout take exit 1 to FULL MOON ACCESS ROAD
59	Т	U-turn - Grit FULL MOON ACCESS ROAD
60	Т	At roundabout take exit 2 to A467
61	Т	Turn right onto CROSSKEYS ACCESS ROAD
62	Т	Continue - Grit HIGH STREET
63	Т	Continue - Grit HIGH STREET to CROMWELL ROAD
64	Т	Continue - Grit CROMWELL ROAD to ST MARY STREET
65	Т	Continue - Grit ST MARYS STREET to TREDEGAR STREET
66	Т	At roundabout complete a circuit and take exit 2 to PONTYMISTER LINK ROAD
67	Т	At roundabout salting and take exit 3 on to TESCO ACCESS ROAD.
68	Т	Continue - Grit TESCO ACCESS ROAD to PRIVATE ROAD
69	Т	U-turn - Travel TESCO ACCESS ROAD to roundabout
70	Т	At roundabout take exit 3 on to PONTYMISTER LINK ROAD
71	Т	At roundabout take exit 4 onto PONTYMISTER LINK ROAD
72	Т	AT roundabout take exit 2 to PONTYMISTER LINK ROAD
73	Т	At roundabout take exit 3 to NEWPORT ROAD
74	Т	Continue - Grit NEWPORT ROAD to RISCA ROAD
75	T	At roundabout take exit 3 to RISCA ROAD
76	Ť	Turn right onto PONTYMASON LANE
77	Ť	Continue - Grit PONTYMASON LANE
78	Ť	At roundabout take exit 1 to ELM DRIVE
70 79	Ť	Turn right onto HOLLY ROAD
80	T	Turn right onto COTSWOLD WAY
80 81	T	Continue - Grit COTSWOLD WAY
82	T	
		At roundabout take exit 2 to ELM DRIVE. End of salting
83	F	Turn right - Travel HOLLY ROAD
84	F	Continue - travel HOLLY ROAD. Grit.
85	T	Turn left -Grit ROWAN ROAD
86	Т	
87	T	Continue - Grit LOWER WYNDHAM TERRACE
88	Т	Continue - Grit MILL STREET
89	Т	At roundabout take exit 3 to TREDEGAR STREET
90	Т	Turn right onto MARYLAND ROAD
91	Т	Turn right - Grit Park & RIDE
92	Т	Turn right - Grit MARYLAND ROAD
93	Т	Continue - Grit MARYLAND ROAD
94	Т	Turn right onto GELLI AVENUE
95	Т	Continue - Grit GELLI AVENUE to ELM DRIVE
96	Т	Continue - Grit ELM DRIVE
97	Т	Turn right onto MANOR WAY
98	Т	Continue - Grit MANOR WAY to MANOR ROAD
99	Т	Turn right onto CHANNEL VIEW
100	Т	At roundabout take exit 3 to LOWER WYNDHAM TERRACE
101	Т	Continue - Grit LOWER WYNDHAM TERRACE to THISTLE WAY
102	Т	Turn right onto ALMOND AVENUE
103	Т	Turn right onto MAPLE AVENUE. End of salting
104	F	Turn right - Travel MANOR ROAD. Grit
105	T	Turn left - Grit CHANNEL VIEW
106	Ť	Continue - Grit CHANNEL VIEW to HERBERT AVENUE
107	Ť	Continue - Grit HERBERT AVENUE. End of salting
108	F	Turn left - Travel NEWPORT ROAD
109	F	Continue - Travel NEWPORT ROAD to RISCA ROAD
110	F	At roundabout take exit 3 to RISCA ROAD
111	F	Turn right onto PONTYMASON LANE
	I	
		4.4

F **Continue - Travel PONTYMASON LANE** 112 F 113 At roundabout take exit 1 to ELM DRIVE. Grit Т Turn right -Grit HOLLY ROAD 114 Т Continue - Grit HOLLY ROAD to FERNLEA 115 Т **Continue - Grit FERNLEA** 116 т Turn right onto DARRAN ROAD 117 Т Continue - Grit DARRAN ROAD. End of salting 118 F Turn left - Travel ST MARY STREET. Grit 119 Т 120 Turn right - Grit GROVE ROAD Т Continue - Grit GROVE ROAD to CRESCENT ROAD 121 т Continue - Grit CRESCENT ROAD to NEW PARK ROAD 122 Т Continue - Grit NEW PARK ROAD to WAUNFAWR PARK ROAD 123 Т Continue - Grit WAUNFAWR PARK ROAD to COBDEN STREET 124 Т **Continue - Grit COBDEN STREET** 125 126 Т Turn right onto GLADSTONE STREET т Turn left onto CROSSKEYS ACCESS ROAD 127 128 т Turn right onto A467 т At roundabout take exit 2 to A467 129 Т 130 Continue - Grit A467 to ABERCARN Т 131 Turn left onto BRIDGE STREET Т Turn left onto DARREN DRIVE 132 133 Т Continue - Grit DARREN DRIVE to A467 Т Turn left onto A467 134 т 135 At roundabout take exit 1 to COED CELYNEN DRIVE Т At roundabout complete a circuit and take exit 3 to COED CELYNEN DRIVE 136 Т 137 At roundabout take exit 1 to A467 Т 138 Continue - Grit A467. Т Enter roundabout complete a circuit and take exit 1 to A472 139 т 140 Continue - Grit A472 Т 141 At roundabout take exit 3 back onto A472 Т 142 Continue - Grit A472. End of salting F 143 At roundabout take exit 4 to A472 F 144 At roundabout take exit 3 to A4048 F 145 At roundabout take exit 2 to A4048 F 146 At roundabout take exit 2 to B4254 F Turn left into PENMAEN INDUSTRIAL ESTATE 147 F 148 Turn left into DEPOT

#### **APPENDIX 1**

#### Pre-salting Route 5 (Penmaen)



# Pre-salting Route 6 (Penmaen)

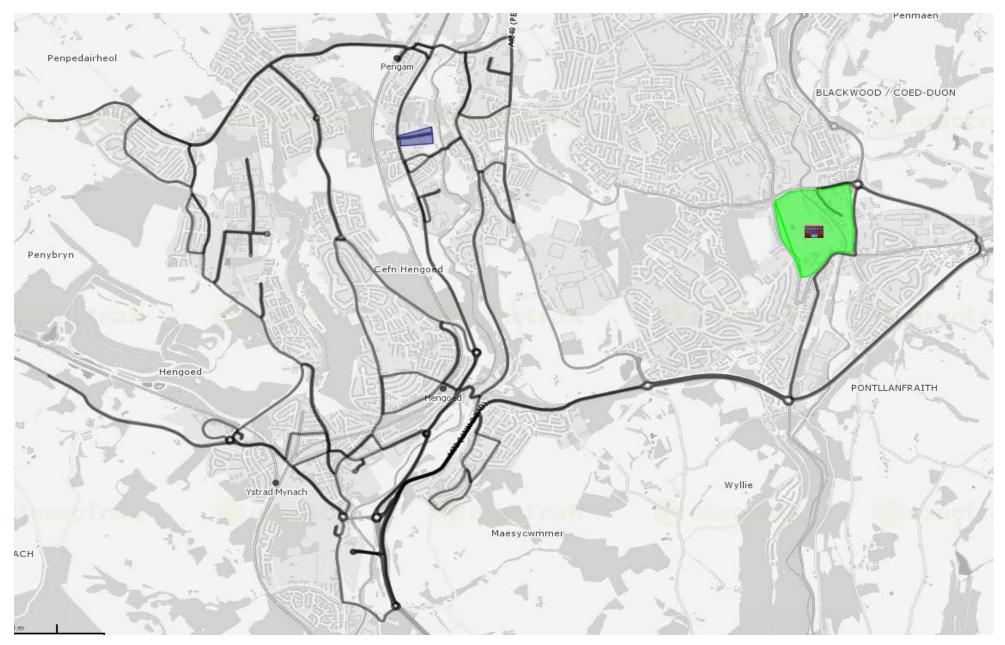
No	GRITTING	ROUTE_CARD
1	F	Leave yard travel to junction B4254.
2	F	Turn right - Travel B4254
3	F	At roundabout take exit 3 onto PENMAEN ROAD
4	F	Turn right - Travel COMMERCIAL STREET
5	F	At roundabout take exit 1 to SIR IVORS ROAD
6	F	Continue - Travel SIR IVORS ROAD to NEWPORT ROAD. Grit
7	т	Enter roundabout gritting - Take exit 3 to A472
8	т	At roundabout take exit 2 to A472 to MAESYCWMMER
9	т	Continue - Grit A472 MAIN ROAD
10	Т	Continue - Grit A472 to A469
11	Т	Turn right onto YSBYTY YSTRAD FAWR
12	т	At roundabout complete a circuit and take exit back to A469
13	Т	Turn right onto A469
14	Ť	At roundabout complete a circuit and take exit 4 back onto A469
15	Ť	Bear left - Grit YSBYTY FAWR access road
16	Ť	Enter Roundabout salting and return back to A469.
17	Т	Bear left - Grit A469
18	Ť	Bear right - Grit A469 to A472 MAIN ROAD
19	Ť	Continue - Grit A472
20	Ť	Turn right onto TABOR ROAD
20	Ť	Continue - grit TABOR ROAD to PARK ROAD
22	T	Turn right onto SPRINGFIELD
23	T	Turn right onto PLEASANT VIEW
23	T	Turn right onto PARK ROAD
24 25	T	Turn left onto HILL VIEW
25 26	T	Continue - Grit HILL VIEW to ST DAVIDS ROAD
20 27	T	Turn left onto ERASMUS TERRACE
28	T	Continue - Grit ERASMUS TERRACE to JENKIN STREET
20 29	T	
29 30	F	Turn right onto TABOR ROAD. End of salting. Travel - TABOR ROAD
30 31		Turn left onto A472
32	F	Travel - A742 to A469
33	F F	
33 34	F	Enter roundabout and take exit 3 to DUFFRYN INDUSTRIAL ESTATE
	Г	Enter roundabout and take exit 3 to TWYN ROAD. Grit
35 36	T	Turn right - Grit CAERPHILLY ROAD.
30 37	T	Continue - Grit Caerphilly Road
38	T	Turn left - Complete a circuit of TY GRADDFA Turn left - Grit CAERPHILLY ROAD
30 39		
39 40	T	At roundabout complete a circuit and take exit 1 onto A472 to NELSON At roundabout complete a circuit and take exit 1 onto A472 to NELSON
40 41	T T	Continue - Grit A472
41	T	
42 43	T	At roundabout complete a circuit and take exit 1 onto A472
43 44		At roundabout complete a circuit and take exit 2 onto A472
	Т	At roundabout take exit 4 onto A472
45 46	T	At roundabout take exit 3 onto A472
46	T	At roundabout take exit 1 onto CAERPHILLY ROAD
47	T	Turn left onto HEOL FAWR
48	Т	Continue - Grit HEOL FAWR to MOUNTAIN VIEW. End of salting
49 50	F	U-turn - Travel MOUNTAIN VIEW to COMMERCIAL STREET. Grit
50	T	Turn left - Grit COMMERCIAL STREET
51	T	At roundabout complete a circuit and take exit 2 to COMMERCIAL STREET
52	T	Turn left onto HIGH STREET
53	T	Continue - Grit HIGH STRET
54	Т	Turn left onto LLWYNCELYN TERRACE

55	т	Turn left onto A472
56	Ť	At roundabout take exit 2 to DYNEVOR TERRACE
57	T	Continue - Grit DYNEVOR TERRACE
58	Ť	At roundabout take exit 1 to COMMERCIAL STREET
59	T	Continue - Grit COMMERCIAL STREET to SHINGRIG ROAD
60	T	Continue - Grit SHINGRIG ROAD
61	Ť	Turn right onto GELLIGAER ROAD
62	Ť	Continue - Grit GELLIGAER ROAD to CHURCH ROAD
63	Ť	Continue - Grit CHURCH ROAD
64	Ť	Turn right onto PENALLTA ROAD
65	T	Continue - Grit PENALLTA ROAD
66	T	Turn right onto HEOL CATTWG
67	Т	Continue - Grit HEOL CATTWG to ANEURIN BEVAN AVENUE
68	Т	Turn right onto CHURCH ROAD. End of salting.
69	F	Travel - Turn right onto PENALLTA ROAD
70	F	Travel to HEOL CATTWG. Grit
71	T	Continue - Grit PENALLTA ROAD to PEN-Y-BRYN TERRACE
72	Т	Turn right onto GELLIARGWELLT ROAD
73	Т	Turn right onto TROSNANT CRESCENT
74	T	Turn right onto PENALLTA ROAD
75	Т	Continue - Grit PENALLTA ROAD to PEN-Y-BRYN TERRACE
76	Т	Continue - Grit PEN-Y-BRYN TERRACE
77	Т	Turn left onto WEST ROAD
78	Т	Turn right onto EAST ROAD
79	Т	Turn left onto NORTH ROAD. End of salting
80	F	U-turn. Travel NORTH ROAD. Grit
81	Т	Turn left - Grit EAST ROAD
82	Т	At roundabout complete a circuit and take exit 4 to EAST ROAD
83	Т	Turn left onto SOUTH ROAD
84	Т	Continue - Grit SOUTH ROAD. End of salting.
85	F	U-turn, travel SOUTH ROAD.
86	F	Travel - Turn left onto EAST ROAD
87	F	Travel - Turn left onto WEST ROAD
88	F	Travel WEST ROAD. Grit.
89	Т	Turn left - Grit PENALLTA ROAD
90	Т	Turn left onto CWM CALON ROAD.
91	Т	U-turn - Travel CWM CALON ROAD. Grit
92	Т	Turn left - Grit PENALLTA ROAD
93	Т	Turn left - Grit PENALLTA ROAD
94	Т	At roundabout take exit 1 to BEDWLWYN STREET
95	Т	At roundabout take exit 2 to PENGAM ROAD
96	Т	Turn right onto LEWIS GIRLS SCHOOL ACCESS ROAD
97	Т	Complete a circuit and return to PENGAM ROAD
98	Т	Turn right onto PENGAM ROAD
99	Т	Continue - Grit PENGAM ROAD
100	Т	At roundabout complete a circuit and take exit 2 to A469
101	Т	At roundabout complete a circuit and take exit 4 back to A469
102	Т	Continue - Grit A469
103	Т	At roundabout take exit 2 to PENGAM ROAD
104	Т	Turn right onto DAVIES STREET
105	Т	Turn left onto BEDWLWYN ROAD
106	Т	Continue - Grit BEDWLWYN ROAD.
107	Т	At roundabout take exit 2 to BEDWLWYN ROAD
108	F	Turn right onto PENALLTA ROAD. End of salting
109	F	Travel - At roundabout take exit 2 to PENALLTA ROAD
110	F	Travel - PENALLTA ROAD. Grit
111	Т	Turn left - Grit PENALLTA LINK ROAD

110	т	At roundebout take ovit 2 to TV DENALLTA
112	T T	At roundabout take exit 3 to TY PENALLTA
113	=	
114	Т	
115	Т	Continue - Grit TREDOMEN BUSINESS CENTRE
116	Т	
117	T	Turn left onto PENALLTA LINK ROAD
118	Т	At roundabout take exit 1 to A472 CAERPHILLY ROAD
119	T	Turn left onto STATION ROAD
120	Т	Turn right onto PANTYCELYN STREET
121	Т	Continue - Grit PANTYCELYN STREET. End of salting
122	F	Turn right onto PENALLTA ROAD. Grit
123	T	Enter roundabout gritting - take exit 3 to LEWIS STREET
124	T	Continue - Grit LEWIS STREET. End of salting
125	F	Travel - Turn left onto A472 CAERPHILLY ROAD
126	F	Travel CAERPHILLY ROAD. Grit
127	Т	Enter Roundabout gritting take exit 1 to COMMERCIAL STREET
128	Т	Continue - Grit COMMERCIAL STREET to PENALLTA ROAD
129	Т	At roundabout take exit 3 to BEDWLWYN STREET
130	Т	At roundabout take exit 1 to BEDWLWYN ROAD
131	Т	Continue - Grit BEDWLWYN ROAD to HENGOED ROAD
132	Т	Continue - Grit HENGOED ROAD to GELLIGAER ROAD
133	Т	Turn right onto HENGOED AVENUE
134	Т	Continue - Grit HENGOED AVENUE
135	Т	Turn right onto BRYNAVON TERRACE
136	Т	Turn right onto KINGS HILL. End of salting
137	F	Turn left - Travel HENGOED ROAD. Grit
138	Т	Turn left - Grit PARK ROAD. End of salting
139	F	Travel - PARK ROAD TO BRYNAVON TERRACE
140	F	Continue - Travel BRYNAVON TERRACE. Grit
141	Т	Turn right - Grit HENGOED AVENUE
142	Т	At roundabout complete a circuit and take exit 1 to A469
143	Т	Continue - Grit A469
144	Т	Turn right onto TIR-Y-BERTH INDUSTRIAL ESTATE
145	Т	Continue - Grit ENTERPRISE HOUSE
146	Т	U-turn - Grit to A469
147	Т	Turn right onto A469
148	Т	Continue - Grit A469
149	Т	Turn right into TIR-Y-BERTH DEPOT
150	Т	U-turn - Grit to A469
151	Т	Turn right onto A469
152	Т	Continue - Grit A469
153	Т	Turn left onto CARDIFF ROAD
154	Т	Turn right onto THE SQUARE
155	Т	Turn right onto A469
156	Т	Turn right onto CARDIFF ROAD
157	Т	Turn left onto B4254 PENGAM ROAD
158	Т	Turn left onto PENGAM PARK & RIDE
159	Т	Continue - Grit PENGAM PARK & RIDE
160	Т	U-turn - return to B4254
161	Т	Turn left onto B4254 PENGAM ROAD
162	Т	Continue - Grit PENGAM ROAD
163	Т	Turn left onto HENGOED ROAD
164	Т	At roundabout complete a circuit and take exit 2 to HENGOED ROAD
165	Т	Continue - Grit HENGOED ROAD. End of salting
166	F	U turn - Travel HENGOED ROAD
167	F	Travel - At roundabout take exit 2 to HENGOED ROAD
168	F	Travel - HENGOED ROAD. Grit

	-	
169	T	Turn left - Grit B4254 CHURCH ROAD
170	T	Continue - Grit B4254 CHURCH ROAD. End of salting.
171	F	U-turn - Travel B4254 CHURCH ROAD
172	F	Continue - Travel CHURCH ROAD to PENGAM ROAD
173	F	Continue - Travel PENGAM ROAD to THE SQUARE. Grit
174	Т	Continue - Grit HIGH STREET
175	Т	Turn right onto COMMERCIAL STREET
176	Т	Turn left onto ST DAVIDS ROAD
177	Т	Turn left onto A4049
178	Т	Turn left onto ST DAVIDS INDUSTRIAL ESTATE
179	Т	Continue - Grit ST DAVIDS INDUSTRIAL ESTATE
180	Т	U-turn - Grit St DAVIDS INDUSTRIAL ESTATE
181	Т	Turn left onto A469.
182	Т	Turn left onto HIGH STREET
183	Т	Turn left onto COMMERCIAL STREET
184	Т	Continue - Grit COMMERCIAL STREET
185	Т	Continue - Grit COMMERCIAL STREET to HIGH STREET
186	Т	Turn right onto FORD ROAD
187	Т	Continue - Grit FORD ROAD to BEATTY STREET
188	Т	Turn right - Grit HORNER STREET to A469
189	Т	Turn left onto A469.
190	Т	Turn left onto BEATTY STREET
191	Т	Continue - Grit BEATTY STREET to FORD ROAD
192	Т	Turn right onto HIGH STRET
193	Т	Turn left onto PLAS ROAD
194	Т	Turn right onto GELLI HAF ROAD
195	Т	Turn left onto A4049
196	Т	Turn left onto PLAS ROAD
197	Т	Turn left onto VICTORIA ROAD
198	Т	Continue - Grit VICTORIA ROAD
199	Т	Turn right onto VIADUCT LANE
200	Т	Turn left onto A469.
201	Т	At roundabout take exit 4 back to A469
202	Т	Turn left onto KINGS HILL
203	Т	U-turn - Grit KINGS HILL
204	Т	Turn left onto A469.
205	Т	At roundabout take exit 3 back to A469
206	Т	Turn left onto VIADUCT LANE
207	т	Turn right onto THOMAS STREET
208	Ť	Continue - Grit THOMAS STREET. End of salting
209	F	Turn right onto A472.
210	F	Travel A472. Grit
211	T	Turn right onto DANCE CENTRE ROUNDABOUT SLIP ROAD
212	Ť	At roundabout take exit 4 onto A472 SLIP ROAD
213	Ť	Bear left onto A472. End of salting
214	F	Travel A472. Grit
215	, T	Enter roundabout gritting - Take exit 2 to A472
216	Ť	Continue - Grit A472.
217	Ť	At roundabout take exit 2 to A472.
218	Ť	Continue - Grit A472. End of salting
210	F	At roundabout take exit 1 to A4048
219	F	At roundabout take exit 2 to A4048
220	F	At roundabout take exit 2 to B4254
221	F	Turn left into PENMAEN ROAD INDUSTRIAL ESTATE
	F	
223	F	Turn left into DEPOT

# Pre-salting Route 6 (Penmaen)



# Pre-salting Route 7 (Bedwas)

No	GRITTING	ROUTE_CARD
1	Т	Leave yard - Grit GREENWAY INDUSTRIAL ESTATE
2	т	Turn right - Grit A468
3	Т	At roundabout take exit 3 to CROSSWAYS INDUSTRIAL ESTATE
4	Т	At roundabout complete a circuit and take exit 2 to PARC PONTYPANDY
5	Т	At roundabout complete a circuit and take exit 2 to PARC PONTYPANDY
6	Т	At roundabout complete a circuit and take exit 3 to A468 link road
7	Т	At roundabout take exit 3 back to A468 link road
8	Т	At roundabout take exit 1 to PARC PONTYPANDY
9	Т	At roundabout take exit 3 to HEOL TY MERCHANT
10	Т	Continue - Grit HEOL TY MERCHANT
11	Т	Turn right onto HEOL BRO WEN
12	Т	Continue - Grit HEOL BRO WEN
13	Т	Turn right onto HEOL TY MERCHANT
14	Т	Turn left onto HEOL BRO WEN
15	Т	AT roundabout complete a circuit and take exit 2 to HEOL BRO WEN
16	Т	Turn right onto PONTYGWINDY ROAD
17	Т	Take 2nd left onto PONTYGWINDY INDUSTRIAL ESTATE
18	Т	Turn left onto PONTYGWINDY INDUSTRIAL ESTATE
19	Т	Turn left onto PONTYGWINDY ROAD
20	Т	Continue - Grit PONTYGWINDY ROAD
21	Т	Turn right onto CATNIC
22	Т	U-turn - Grit CATNIC
23	Т	Turn right onto PONTYGWINDY ROAD
24	Т	Continue - Grit PONTYGWINDY ROAD. End of salting
25	F	At roundabout take exit 3 to A469
26	F	Continue - Travel A469. Grit
27	Т	Enter roundabout gritting take exit 1 to COED-Y-BRAIN ROAD
28	Т	Continue - Grit COED-Y-BRAIN ROAD to HIGH STREET
29	Т	Continue - Grit HIGH STREET to GLENVIEW TERRACE
30	Т	Continue - Grit GLENVIEW TERRACE
31	Т	Turn right onto WINGFIELD TERRACE ACCESS ROAD
32	Т	At roundabout take exit 3 back to WINGFIELD TERRACE ACCESS ROAD
33	Т	Turn right onto WINGFIELD TERRACE
34	Т	Continue - Grit WINGFIELD TERRACE
35	Т	Continue - Grit WINGFIELD TERRACE to CAERPHILLY ROAD
36	Т	Continue - Grit CAERPHILLY ROAD
37	Т	Turn right onto DUFFRYN INDUSTRIAL ESTATE
38	T	Turn left onto DUFFRYN INDUSTRIAL ESTATE
39	T	At roundabout take exit 2 to A469 ACCESS ROAD
40	T	At roundabout take exit 4 back to A469 ACCESS ROAD
41	Т	At roundabout take exit 3 to TWYN ROAD
42	Т	Turn left onto CAERPHILLY ROAD
43	T	At roundabout take exit 1 to CAERPHILLY ROAD
44	Т	Continue - Grit CAERPHILLY ROAD. End of salting
45	F	Turn left - Travel DUFFRYN INDUSTRIAL ESTATE
46	F	Turn left - Travel DUFFRYN INDUSTRIAL ESTATE
47	F	At roundabout take exit 2 to A469 ACCESS ROAD
48 40	F	At roundabout take exit 3 to A469
49 50	F	At roundabout take exit 1 to A469
50	F	At roundabout take exit 2 to A469. Grit
51 52	T	Enter roundabout gritting take exit 4 to A468
52	Т	At roundabout complete a circuit and take exit 2 to A468
53 54	T T	At roundabout complete a circuit and take exit 5 to A468
54	I	At roundabout take exit 2 to A468

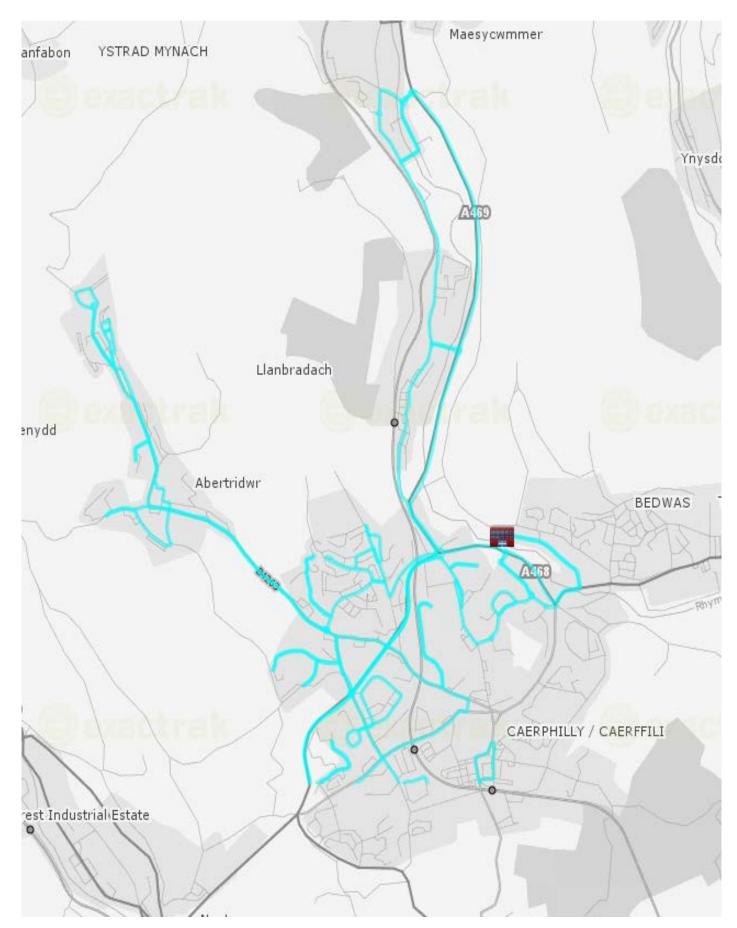
EE	т	At roundebout take exit 1 to HEQL DW/LLVDANT
55 56	T T	At roundabout take exit 1 to HEOL PWLLYPANT
56		Continue - Grit HEOL PWLLYPANT
57 59	T T	Turn right onto HEOL LAS
58	T	Turn left onto Y CILGANT
59 60	T	At mini roundabout take exit 2 onto HEOL ANEURIN
60	T	Continue - Grit HEOL ANEURIN to BUS TERMINAL
61	Т	
62	Т	Turn left onto HEOL-Y-GOGLEDD
63	Т	Bear right - Grit PEN-Y-BRYN
64	Т	Turn right onto HEOL LAS
65	Т	Turn left onto HENDRE
66	Т	Continue - Grit HENDRE
67	T	Turn right onto HEOL LAS
68	Т	Continue - Grit HEOL LAS to HEOL CWARREL CLARK
69	T	U-turn - Grit HEOL LAS
70	Т	Turn right onto Y CILGANT
71	Т	At mini roundabout take exit 1 to HEOL ANURIN
72	Т	Continue - Grit HEOL ANEURIN
73	Т	Turn right on CALEDFRYN WAY
74	Т	Continue - Grit CALEDFRYN WAY to HEOL CWM IFOR
75	Т	At roundabout take exit 4 to HEOL CWM IFOR. End of salting.
76	F	Travel HEOL CWM IFOR
77	F	Travel CALEDFRYN WAY. Grit
78	Т	Turn right - Grit HEOL ANEURIN
79	Т	Bear left onto HEOL ANEURIN & complete a circuit of TRAFFIC ISLAND
80	Т	Turn right onto B4263
81	Т	Continue - Grit B4263 to THOMS STREET
82	Т	Continue - Grit THOMAS STREET to HIGH STREET
83	Т	Continue - Grit HIGH STREET to COMMERCIAL STREET
84	Т	Continue - Grit COMMERCIAL STREET to BUS TERMINUS.
85	Т	Continue - Grit BUS TERMINUS to CENYDD TERRACE LINK ROAD
		Continue - Grit CENYDD TERRACE LINK ROAD to BUS TERMINUS. End of
86	Т	salting.
87	F	Travel BUS TERMINUS to COMMERCIAL STREET. Grit
88	Т	Turn left - Grit HIGH STREET
89	Т	Continue - Grit HIGH STREET
90	Т	Turn right onto SCHOOL STREET
91	Т	Turn left onto UPPER BRYNHYFRYD TERRACE
92	Т	Turn left onto YSGOL IFOR BACH ACCESS ROAD
93	Т	Turn left onto HIGH STREET
94	Т	Turn left onto SCHOOL STREET
95	Т	Turn right onto LOWER BRYNHYFRYD TERRACE
96	Т	Bear right onto LOWER BRYNHYFRYD TERRACE
97	Т	Turn left onto HIGH STREET
98	Т	Turn left onto B4263
99	Т	Turn left onto CAERPHILLY ROAD
100	Т	Continue - Grit CAERPHILLY ROAD. End of salting
101	F	Turn left onto B4263
102	F	Travel B4263. Grit
103	Т	Turn right - Grit WINDSOR COLLIERY ACCESS
104	Т	Continue - Grit to YSGOL IFOR BACH. End of salting.
105	F	U-turn - Travel WINDSOR COLLIERY ACCESS
106	F	Turn right - Travel B4263
107	F	Continue - Travel B4263 to HIGH STREET. Grit
108	Т	Turn left - Grit BROOK STREET
109	Т	Continue - Grit BROOK STREET to BRYNHAFOD ROAD
110	Т	Continue - Grit BRYNHAFOD ROAD

444	-	
111	T	Turn left onto KING STREET
112	T	Turn right onto ACCESS ROAD
113	Т	Continue - Grit ABERFAWR ROAD
114	Т	Turn right onto ILAN ROAD
115	Т	Continue - Grit ILAN ROAD to TRIDWR ROAD
116	Т	Turn left onto CHURCH ROAD
117	Т	Continue - Grit CHURCH ROAD to WOODLAND TERRACE
118	Т	U-turn - at junction WOODLAND TERRACE and HENDRE ROAD
119	Т	Continue - Grit WOODLAND TERRACE to CHURCH ROAD
120	Т	Continue - Grit CHURCH ROAD. End of salting.
121	F	Turn right onto B4263
122	F	Travel - B4263 THOMAS STREET. Grit
123	T	Enter roundabout gritting take exit 3 to STATION TERRACE
124	Ť	Continue - Grit STATION TERRACE
125	Ť	Turn right onto HENDREDENNY DRIVE
125	T	Continue - Grit HENDREDENNY DRIVE. End of salting
		-
127	F	U-turn Travel HENDREDENNY DRIVE. Grit
128	Т	Turn right - Grit GROESWEN DRIVE. End of salting
129	F	U-turn at PEMBROKE COURT
130	F	Travel GROESWEN DRIVE
131	F	Turn right - Travel HENDREDENNY DRIVE. Grit
132	Т	Turn right - Grit ST CENYDD ROAD
133	Т	At roundabout take exit 4 back to ST CENYDD ROAD. End of salting
134	F	Travel ST CENYDD ROAD
135	F	Travel ST CENYDD ROAD to STATION TERRACE
136	F	Travel STATION TERRACE. Grit
137	Т	Enter roundabout gritting take exit 3 to MILL ROAD
138	т	Continue - Grit MILL ROAD
139	Т	Turn left onto CAENANT ROAD
140	Ť	Continue - Grit CAENANT ROAD to LEWIS DRIVE
141	Ť	Continue - Grit LEWIS DRIVE. End of salting
142	F	U-turn - Travel LEWIS DRIVE. Grit
143	, T	Turn left - Grit MILL ROAD
143	T	
144	T	Bear right onto TAFWYS WALK
		Turn right onto NANTGARW ROAD
146	T	Continue - Grit NANTGARW ROAD
147	T	At roundabout complete a circuit and take exit 3 to HEOL TYWYSOG DU
148	T	At roundabout complete a circuit and take exit 3 to HEOL TYWYSOG DU
149	Т	Continue - Grit HEOL TYWYSOG DU to FFORD PEHRHOS. End of salting
150	F	U-turn - Travel FFORD PENRHOD
151	F	Continue - Travel HEOL TYWYSOG DU
152	F	At roundabout take exit 1 to HEOL TYWYSOG DU. Grit
153	Т	Enter roundabout salting take exit 2 to FFORD TRAWS CWM
154	Т	At roundabout complete a circuit and take exit 2 to FFORD TRAWS CWM
155	Т	At roundabout complete a circuit and take exit 3 to CAE CROES HEOL
156	Т	Turn left onto A469
157	Т	Turn left onto FFORD TRAWS CWM
158	Т	At roundabout take exit 2 to FFORD TRAWS CWM
159	т	At roundabout take exit 3 to FFORD TRAWS CWM
160	Ť	At roundabout take exit 2 to FFORD TRAWS CWM
161	Ť	At roundabout take exit 1 to NANTGARW ROAD
162	Ť	At roundabout take exit 1 to A469
163	Ť	Continue - Grit A469
164	T	Turn left onto WATFORD ROAD
165	T	
165	T	Turn right onto TURNING AREA U-turn in TURNING AREA
167	Т	Turn right onto WATFORD ROAD

## **APPENDIX 1**

400	-	
168	T T	Turn right onto ST MARTINS ROAD. Grit TRAFFIC ISLAND
169	T	Continue - Grit ST MARTINS ROAD. End of salting
170	F	Turn left - Travel CARDIFF ROAD
171	F	Continue - Travel CARDIFF ROAD to CASTLE STREET
172	F	Turn right - Travel MARKET STREET
173	F	Continue - Travel WHITE STREET. Grit
174	T	Turn right - Grit BARTLETT STREET
175	Т	Turn left - Grit MOUNTAIN ROAD
176	Т	Continue - Grit MOUNTAIN ROAD
177	Т	Turn left onto A469
178	Т	Continue - Grit A469
179	Т	U-turn - Grit A469
180	Т	Continue - Grit A469
181	Т	Turn left onto BLACKBROOK ROAD
182	Т	Turn right onto WAUNWAELOD WAY
183	Т	Continue - Grit WAUNWAELOD WAY
184	Т	U-turn - Grit WAUNWAELOD WAY
185	Т	Continue - Grit WAUNWAELOD WAY. End of salting
186	F	Turn left - Travel A469
187	F	Turn right - Travel WATFORD ROAD. Grit
188	Т	Continue - Grit WATFORD ROAD to LON-Y-LLYN
189	Т	Turn right onto ST CHRISTOPHERS DRIVE
190	Т	Turn left onto ST CHRISTOPHERS DRIVE
191	Т	Continue - Grit ST CHRISTOPHERS DRIVE
192	Т	Turn left onto ST CHRISTOPHERS DRIVE
193	Т	Turn right onto LON-Y-LLYN
194	Т	Continue - Grit LON-Y-LLYN to ST CENYDD ROAD
195	Т	Continue - Grit ST CENYDD ROAD
196	Т	Turn left onto CAER FFERM
197	т	Continue - Grit CAER FFERM
198	т	Turn right onto CAER FFERM
199	т	Continue - Grit FIRST AVENUE
200	Т	Turn left - Grit EAST AVENUE
201	Т	Continue - Grit EAST AVENUE to THE CRESCENT
202	Т	At roundabout take exit 1 to THE CRESCENT
203	T	Continue - Grit THE CRESCENT to WEST AVENUE
204	T	Turn right onto FIRST AVENUE
205	T	Turn right onto ST CENYDD ROAD
206	Ť	Continue - Grit ST CENYDD ROAD. End of salting
200	F	Travel - At roundabout take exit 3 to A468
208	F	Travel - At roundabout take exit 4 to A468
209	F	Travel - At roundabout take exit 1 to A468
209 210	F	Travel - At roundabout take exit 1 to A468
210	F	Turn left into GREENWAY INDUSTRIAL ESTATE
211	F	Continue - Travel GREENWAY INDUSTRIAL ESTATE
	F	
213	Г	Turn left into DEPOT

# Pre-salting Route 7 (Bedwas)



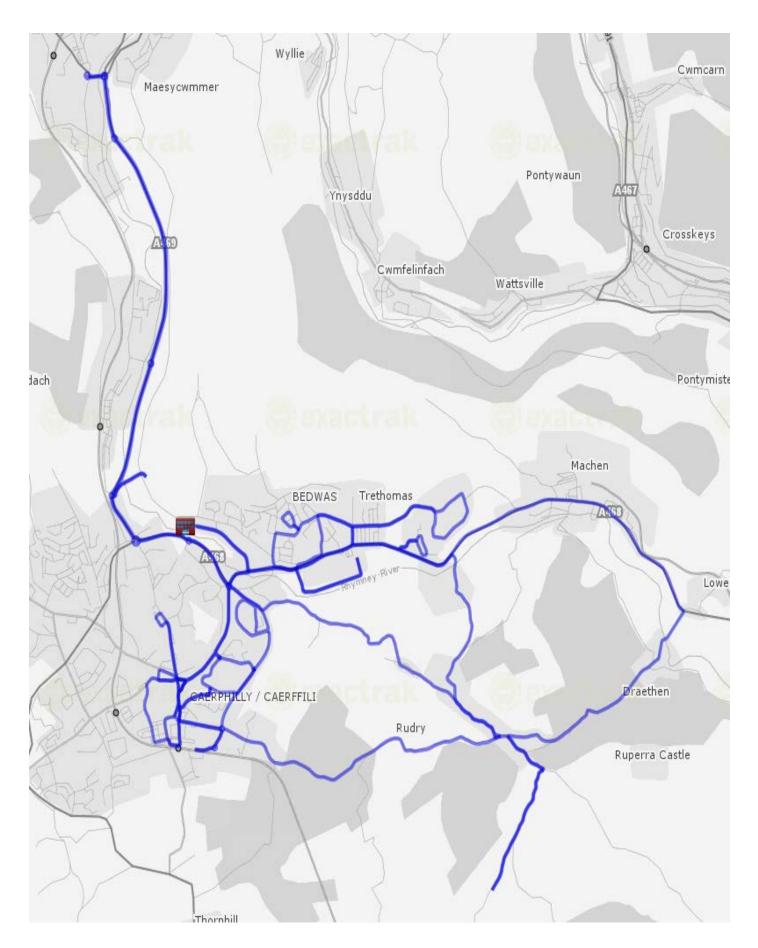
# Pre-salting Route 8 (Bedwas)

No	GRITTING	ROUTE_CARD
1	F	Leave yard - Travel GREENWAY INDUSTRIAL ESTATE. Grit
2	Т	Turn right onto A468
3	Т	Enter roundabout gritting complete a circuit and take exit 4 to A468
4	Т	At roundabout complete a circuit and take exit 2 to A468
5	Т	At roundabout complete a circuit and take exit 4 to A469
6	Т	At roundabout complete a circuit and take exit 2 to A469
7	Т	At roundabout complete a circuit and take exit 2 to A469
8	Т	At roundabout complete a circuit and take exit 2 to A469
9	Т	At roundabout complete a circuit and take exit 1 to A472
10	Т	At roundabout take exit 4 to A472
11	Т	At roundabout take exit 3 to A469
12	Т	At roundabout take exit 2 to A469
13	Т	At roundabout take exit 1 to A469
14	Т	At roundabout take exit 1 to TRE-HIR TIP
15	Т	Continue - Grit TIP ACCESS ROAD. End of salting
16	F	U-turn - Travel to roundabout. Grit
17	Т	Enter roundabout salting and take exit 1 to A469
18	Т	At roundabout take exit 2 to A468
19	Т	At roundabout take exit 1 to A468
20	Т	At roundabout take exit 1 to A468
21	Т	Continue - Grit A468
22	Т	Turn right into PANT GLAS INDUSTRIAL ESTATE
23	Т	Continue - Grit PANT GLAS INDUSTRIAL ESTATE. End of salting
24	F	U-Turn - Travel PANT GLAS INDUSTRIAL ESTATE. Grit
25	Т	Turn right - Grit A468
26	Т	Turn left onto NAVIGATION ROAD
27	Т	Turn left onto LLANFABON DRIVE
28	Т	At roundabout take exit 2 to LLANFABON DRIVE
29	Т	Continue - Grit LLANFABON DRIVE to BRYNFEDW
30	Т	Turn right onto BRYN GLAS
31	Т	Continue - Grit BRYN GLAS
32	Т	Turn left onto BRYN GOLAU
33	Т	Turn Left onto BRYN TIRION
34	Т	Turn right onto BRYN GLAS
35	Т	Turn right onto BRYNFEDW
36	Т	Continue - Grit BRYNFEDW to HILLSIDE TERRACE
37	Т	Continue - Grit HILLSIDE TERRACE
38	Т	Turn left onto CHURCH STREET
39	Т	Turn left onto A468
40	Т	Turn left onto NEWPORT ROAD
41	Т	Turn right onto NEWPORT ROAD
42	Т	Continue - Grit NEWPORT ROAD to THE BRYN
43	Т	Continue - Grit THE BRYN. End of salting
44	F	At roundabout take exit 3 to LLANFABON DRIVE
45	F	Continue - Travel LLANFABON DRIVE. Grit
46	Т	Continue - Grit STANDARD STREET
47	Т	Continue - Grit ADDISON WAY. End of salting
48	F	Turn right - Travel ADDISON WAY.
49	F	Continue - Travel STANDARD STREET
50	F	Turn left onto NAVIGATION STREET. Grit
51	Т	Turn left - Grit A468
52	Т	Turn left - Grit RIDGEWAY
53	Т	Turn right onto ST DAVIDS DRIVE
54	Т	Turn left onto SUMMERFIELD LANE

<b>FF</b>	-	Turn left anto BIDOEMAN		
55	T	Turn left onto RIDGEWAY		
56	T	Turn left onto A468		
57	T	Continue - Grit A468		
58	Т	Turn right onto DRAETHEN ROAD		
59	Т	Continue - Grit MAENLLWYD		
60	Т	Turn left onto RUDRY ROAD		
61	Т	Continue - Grit RUDRY ROAD. End of salting.		
62	F	U-Turn - Travel RUDRY ROAD. Grit		
63	Т	Turn left at MAENLLWYD		
64	Т	Continue - Grit VAN ROAD		
65	Т	At roundabout complete a circuit and take exit 1 to PARK & RIDE		
66	Т	At roundabout complete a circuit and take exit 2 to PARK & RIDE		
67	Т	Continue - Grit PARK & RIDE		
68	T	U-turn - Travel PARK & RIDE		
69	Ť	At roundabout take exit 1 to VAN ROAD		
70	T	At roundabout take exit 1 to VAN ROAD		
70	T	Continue - Grit THE TWYN		
72	T	Turn right onto CASTLE STREET		
73	T	Continue - Grit CASTLE STREET to PICCADILLY		
74	Т	Turn right onto TON-Y-FELIN ROAD		
75	Т	Turn right onto CASTLE STREET LINK ROAD		
76	Т	Turn left - Grit CASTLE STREET		
77	Т	Continue - Grit MARKET STREET		
78	Т	Continue - Grit WHITE STREET		
79	Т	Turn right - Grit BUS STATION		
80	Т	Bear left onto STATION TERRACE		
81	Т	Turn right onto CARDIFF ROAD		
82	Т	Continue - Grit CARDIFF ROAD to CASTLE STREET. End of salting		
83	F	Turn right - Travel MARKET STREET		
84	F	Continue - Travel WHITE STREET. Grit		
85	T	Turn right - Grit STATION TERRACE.		
86	Ť	Continue - Grit CLIVE STREET		
87	Ť	Turn right - Grit LUDLOW STREET		
88	Ť	Continue - Grit LUDLOW STREET to CRESCENT ROAD		
89	T	Turn right onto NANTGARW ROAD		
	T	Turn left onto PONTYGWINDY ROAD		
90	T	Turn left onto MILL ROAD		
91 00				
92	T	Turn left onto TAFWYS WALK		
93	T	Turn left onto NANTGARW ROAD		
94	T	Turn left onto PONTYGWINDY ROAD		
95	Т	Continue - Grit PONTYGWINDY ROAD		
96	Т	Turn left onto RHOS STREET		
97	Т	Turn left onto WAUN FACH STREET		
98	Т	Turn left onto WAUN GANOL STREET		
99	Т	Continue - Grit WAUN GANOL STREET. End of salting		
100	F	Turn right- Travel PONTYGWINDY ROAD. Grit		
101	Т	Turn left - Grit TON-Y-FELIN ROAD		
102	Т	Turn right - Grit CASTLE STREET LINK ROAD		
103	Т	Turn left - Grit CASTLE STREET		
104	Т	Turn left onto NORTH VIEW TERRACE		
105	T	Continue - Grit BRYNAU ROAD		
106	Ť	Turn left onto CASTLE PARK LINK ROAD		
100	Ť	At roundabout take exit 3 back to CASTLE PARK. End of salting.		
107	F	Turn right - Travel BRYNAU ROAD		
		Continue - Travel NORTH VIEW TERRACE.		
109	F			
110	F	Turn left - Travel MARKET STREET		
111	F	Turn left - Travel VAN ROAD. Grit		

- 112 T Enter roundabout gritting take exit 1 to LANSBURYPARK DISTRIBUTOR ROAD
- 113 T Continue Grit LANSBURY PARK DISTRIBUTOR ROAD
- 114 T Turn left onto PEN-Y-CAE
- 115 T Continue Grit PEN-Y-CAE
- 116 T Turn left Grit LANSBURY PARK DISTRIBUTOR ROAD
- 117 T At roundabout take exit 1 to BEDWAS ROAD
- 118 T Continue Grit BEDWAS ROAD
- 119 T Take 2nd left onto LANSBURY PARK
- 120 T At junction near MAXTON COURT Grit TRAFFIC ISLAND
- 121 T Continue Grit MAXTON COURT to HALDANE COURT
- 122 T At junction near HALDANE COURT Grit TRAFFIC ISLAND
- 123 T Turn right onto LANSBURY PARK DISTRIBUTOR ROAD
- 124 T Turn right onto LANSBURY PARK
- 125 T Continue Grit WEDGEWOOD COURT to MAXTON COURT
- 126 T Turn left onto BEDWAS RAOD
- 127 T Bear left onto CASTLE STREET LINK ROAD
- 128 T Turn right onto MARKET STREET
- 129 T Turn right onto TON-Y-FELIN ROAD. End of salting
- 130 F Continue Travel TON-Y-FELIN ROAD
- 131 F Continue Travel BEDWAS ROAD
- 132 F At roundabout take exit 4 to LANSBURY PARK DISTRIBUTOR ROAD
- 133 F Continue Travel LANSBURY PARK DISTRIBUTOR ROAD. Grit
- 134 T Turn left Grit RUDRY ROAD
- 135 T Continue Grit RUDRY ROAD to STARBUCK STREET
- 136 T Continue Grit STARBUCK STREET to MAENLLWYD
- 137 T U-turn around the junction. End of salting.
- 138 F Travel to RUDRY PRIMARY SCHOOL. Grit
- 139 T Turn right Grit WATERLOO ROAD
- 140 T Continue Grit WATERLOO ROW. End of salting.
- 141 F Turn left onto A468
- 142 F Continue travel A468. Grit
- 143 T Turn right onto GREENWAY INDUSTRIAL ESTATE. End of salting.
- 144 F Continue Travel GREENWAY INDUSTRIAL ESTATE
- 145 F Turn left into DEPOT

# Pre-salting Route 8 (Bedwas)



#### Appendix B.

#### Pre-salting Routes (above 300m) 10 & 11.

#### Route 10

- 1. Not Salting. Leave Penmaen Deopt and travel along the Oak Terrace by pass, the A4049 and the A469 to Pontlottyn Police Station.
- 2. Start salting, turn left and proceed to the junction of Brynhyfryd. Turn right and proceed through Brynhyfryd to the junction with Hill Rd. Turn left and proceed up Hill Rd to the junction. At the junction turn left, and proceed back down the hill to the junction with Brynhyfryd. Stop salting.
- 3. Not salting, proceed to the junction with the A469. Turn left and proceed to the junction of the B4257 and Moriah Street.
- 4. Start salting, turn right onto Moriah Street, and proceed to the junction of Hill Street. Turn right and proceed to the junction of Tan-Y-Bryn. Turn right and complete a loop through Tan-Y-Bryn and Garden City back onto Hill Street, and continue through to the county boundary by Rhymney Golf Course. Stop salting.
- 5. Not salting, turn the vehicle and proceed back to the junction of Hill Street and Moriah Street.
- 6. Start salting, proceed back along hill Street to its junction by Lady Tyler Terrace. Turn right and continue through High St and Upper High Street to the junction with Carno Street. Turn left onto Carno Street and proceed to "Skinners" roundabout. Stop salting.
- 7. Not salting, proceed back along Carno Street to its junction with Upper High St.
- 8. Start salting, turn left onto Upper High St and proceed to the junction with Merthyr Road. At the junction, turn right and proceed along Merthyr Rd to the county boundary at Princetown. Stop salting.
- 9. Not salting, turn the vehicle and proceed back along Merthyr Rd to its junction with Upper High Street.
- 10. Start salting, and proceed to the roundabout by Butetown. At the roundabout proceed south along the A469 to the junction with the old "Mid Glamorgan" yard at Pontlottyn, making a complete circuit of all roundabouts on route. Stop salting.
- 11. Not salting, turn the vehicle and proceed back along the A469 to the roundabout by Butetown.
- 12. Start salting and proceed along the common road to the county boundary with Merthyr, completing a circuit of all roundabouts on route. Stop salting.
- 13. Not salting, turn the vehicle and proceed to the junction of the Common Rd and Trecatti Tip road.

- 14. Start salting, turn right and proceed past Trecatti Tip to the junction at Glenview Terrace, Pentwyn. At the junction, turn left and proceed through Fochriw to the junction with Hill Road Pontlottyn, completing a circuit of the Glan-Y-Nant estate on route. Stop salting.
- 15. Not salting, turn the vehicle and return to the junction with South Tunnel Road.
- 16. Start salting, turn right and proceed along South Tunnel Road to its junction by the "Tunnel Tavern" stop salting.
- 17. Not salting, turn left and proceed again to the junction at Glenview Terrace.
- 18. Start salting, and proceed through Glenview Terrace past Parc Cwm Darran to the junction of Hillside Terrace, Deri. Stop salting.
- 19. Not salting turn the vehicle and return to Glenview Terrace, Fochriw and the mountain road.
- 20. Start salting, turn left onto the mountain road and proceed south past Gelligaer Quarry and Heolddu School to the junction with Moorland Road. Turn right onto Moorland Road and continue through Western Drive to its junction with Oak Place. Stop salting.
- 21. Not salting return to Penmaen Depot.

Approximate Salting Distance: 28.15 Km (17.6 miles) Approximate Distance Not Salted: 40.2 Km (25.1 miles) Route Efficiency 41.2 %

#### Route 11.

- 1. Not salting, leave Penmaen Depot and travel to Glanshon Court, Pantside.
- 2. Start salting, turn left onto the unnamed mountain road and proceed along this road to its junction with the A472 at Hafodyrynys. Stop salting.
- 3. Not salting, turn left and proceed down the hill to the traffic signals. Turn right at the signals then left onto the Kendon Hill. Proceed up the hill and through Trinant to the junction with Christchurch Road.
- 4. Start salting, turn left and proceed to the roundabout on Pen-Y-Fan Ind Est. At this roundabout, take the Manmoel turnoff and proceed through Manmoel Village to the bus depot. Stop salting.
- 5. Not salting, turn the vehicle and proceed back through the village, the roundabout on the ind est, the SEW Chartist Bridge the A4048 and Maes Manor Lane to the entrance to the Maes Manor.
- 6. Start salting, and proceed from this junction to the junction by Bedwellty Church. Turn right at this junction and proceed through to the mini roundabout at Markham. At this roundabout, turn left and left again, completing a circuit back to the "New Inn P.H." at Bedwellty. Stop salting.
- 7. Not salting, turn left and again proceed to the mini roundabout at Markham.
- 8. Start salting, proceed along the mountain road towards New Tredegar. At the junction with Jubilee Rd. New Tredegar, stop salting.
- 9. Not salting travel via Bedwellty Road and Bedlwyn Road, Philipstown to its junction with Dafalog Terrace.
- 10. Start salting, proceed through Bedlwyn Road to the start of Fothergills Road. Stop salting.
- 11. Not salting, proceed to the mini roundabout at Markham.
- 12. Start salting, proceed along Pantycefn Road to its junction with Heol Pen-Rhiwr-Eglwys. Stop salting.
- 13. Not salting, turn right and proceed along Heol Pen-Rhiwr-Eglwys to its junction by the "New Inn P.H." At this junction turn left and proceed to the junction with Maes Manor Lane.
- 14. Start salting at this junction and proceed along Heol Y Bedw-Hirion and Heol Y Cefn to the junction with Harrys Hill. Stop salting.
- 15. Not salting, return to Penmaen Depot.

Approximate Salting Distance: 19.45 Km (12.1 miles) Approximate Distance Not Salted: 41.72 Km (26 miles) Route Efficiency 31.8 %

## Appendix C.

#### Strategic Salting Routes.

Route A. (PENMAEN)

- Leave Penmaen Depot along SEW to Pentwymawr roundabout and back to Penmaen Rbt then up to Chartist Bridge looping all SEW roundabouts.
- Up to Hollybush boundary. Return to Chartist Bridge (not salting)
- Cross Chartist Bridge up to Penyfan Industrial Estate and across to traffic lights (top Kendon Hill)
- Turn down through Oakdale to Woodfieldside Rbt. Loop Rbt and back to traffic lights (top Kendon Hill) (Not Salting)
- Down Kendon Hill and up Hafodyrynys Hill to Boundary. Turn around and return (Not Salting)
- At lights turn left and Follow A467 down Risca bypass (loop Rbts) past boundary turn at Morrisons Rbt and back up Bypass still salting
- At Fullmoon Rbt head up through Wattsville and continue to Wyllie Rbt A472
- Follow A472 Bypass to Newbridge Rbt looping all Rbts. At Newbridge Rbt turn and head back to Wyllie Rbt along A472 Bypass.
- Continue up to Crown Rbt. Through Maesycymmer to Ty Penallta and Tredomen Offices.
- Come out of offices and then follow A472 to Nelson (Loop Rbts) and on to boundary (towards A470). Turn back to Nelson (Not Salting).
- Salt through Nelson and on through Gelligaer B4254 to Pengam lights.
- Straight through lights across Valley and onto A4049, Turn right and down to council offices Hawtin Park. Back to A4049 and continue to Crown roundabout.
- Head for Brynmeadows Rbt and then down hill to Wyllie Rbt on A472.
- At Wyllie Rbt turn left past Switchgear, then up past Tredegar Arms and Blackwood Civic Centre.
- From Civic Centre head up to Blackwood Bus Station and then to Cefn Fforest Fire Station.

**ROUTE FINISHED**. Travel back to Depot not salting.

Route B. (PENMAEN)

- Leave Penmaen depot up to Libanus lights.
- Turn left head for Crown Rbt and then Bryn Meadows Rbt.
- Head to Dance Centre Rbt (Not Salting)
- Dance Centre Rbt start salting and head towards Tir y Birth on A469
- Clear Rd into Tir y Birth Depot then continue to Gilfach on A469
- Go into Bargoed Fire Station, Bus Station and Social Services offices then through High Street onto New Bargoed Bypass.
- Run along whole of bypass loop Rbts only salt in One Direction, finish at Bargoed Railway Station.
- Head up through Deri, through Fochriw to Pontlottyn.
- From Pontlottyn head south then across top road Brithdir and back towards Bargoed Ambulance Station.
- Cross to Aberbargoed side and then head north A4049 through New Tredegar to Pontlottyn.
- Keep on A4049 / A469 to Heads of the Valleys Road loop Rbts and come back down through Rhymney High Street.
- Turn across into Abertysswg do not salt on return.
- Salt down to Pontlottyn Viaduct. Stop salting
- Travel down to lights in Aberbargoed, start salting through Aberbargoed to Capels Garage. Stop salting.

**ROUTE FINISHED**. Travel back to Depot not salting.

Route C. (BEDWAS)

- Leave Bedwas Depot onto A468 through Bedwas, Machen and to County Boundary.
- Turn around and return to Peters Pies only salt where road is separated by island or is four lane.
- Salt from Peters Pies up to Caerphilly Town via Bedwas Road.
- Loop town centre and include Bus Depot then head up Caerphilly Mtn to Burger van.
- Turn left over to Travellers Rest. Turn around and return to Burger van.
- Continue straight past Burger van to Penrhos Rbt.
- At Penrhoes Rbt turn to Trecenydd Rbt
- Turn up to Sengenydd. Salt right up to bus turning area by Saw Mills. Stop salting and return to Trecenydd Rbt.
- Turn Left to Cedar Tree Rbt and then up Llanbradach Bypass, Loop Rbts and Ysbyty Ystrad Fawr
- Turn into Duffryn Industrial Estate and Duffryn House Offices.
- Continue to Dance Centre Rbt.
- Come back down bypass to Cedar Tree Rbt. Stop salting.

**ROUTE FINISHED.** Travel back to Depot.

## Appendix D.

## Footbridge Locations.

#### Footbridge Locations

#### <u>Area 1</u>

- A4049, Tirphil Square.
- A4049, White Rose Primary School, New Tredegar.
- Over railway, Brithdir to White Rose Primary School, New Tredegar.
- Over river, Pontlottyn to Rhymney Comprehensive School.

## <u>Area 4</u>

- A467, Old Swan Inn, Abercarn.
- A467, High Meadow, Abercarn. (2 number)
- A467, Pantside, Newbridge.
- Calzaghe Footbridge, Newbridge.

### <u>Area 5</u>

• A468, Trecenydd, Caerphilly.

#### <u>Area 7</u>

- A468, Court Road, Energlyn.
- Groeswen Road, Hendredenny.

# <u>Appendix E.</u>

## Contact Details.

# Highway Operations Group. Key Contact Details

NAME	DESIGNATION	TELEPHONE	MOBILE	HOME
Graham Parry	Highway Operations Group Manager	01495 235748		
Gareth Richards	Maintenance Team Manager	01495 235723	07901 712353	01443 832454
Chris Adams	Construction Team Manager	01495 235740	07901 712354	
Steve Hodges	Network Management Team Manager	01495 235738	07768 288362	029 20883247
Michelle Johnson	Senior Engineer	01495 235797	07770 508098	
Tom Llewelyn	Senior Engineer	01495 235785	07768 507944	
Joe Williams	Senior Engineer	01495 235788	07901712360	07545 123972
Dean Clarke	Senior Assistant Engineer	01495 235704	07768 701099	01443 836032
Gavin Barry	Senior Assistant Engineer	01495 235718	07766 418867	01685 842553
Rhodri Powell	Senior Assistant Engineer	01495 235794	07770 508097	
Andrew Gould	Assistant Engineer	01495 235716	07766 406412	01443 833896
Vicky Conlon	Assistant Engineer	01495 235756	07717 871515	
lan Shephard	Assistant Engineer	01495 235703	07919 415399	01443 440235
Lloyd Jones	Assistant Engineer	01495 235787	07768 701095	
Glyn Gibbs	Assistant Engineer	01495 235706	07808 251579	
Barrie King	Assistant Engineer	01495 235794	07808 251582	
Gethin Jones	Assistant Engineer	01495 235796	07768 507948	
Darren Jones	Inspector	01495 235757	07768 701092	
Sue Morgan	Inspector	01495 235757	07786 730947	
Darren Jones	Inspector	01495 235757	07768701094	07967 441416
Nicola Tiley	Inspector	01495 235757	07768 701093	01495 200272
Paul Roberts	Inspector	01495 235757	07770 508099	
David Haines	Inspector	01495 235757	07768 701098	01495 226813
Darren Bilton	Inspector	01495 235757	07901 713357	07854 621061
Julie Gambold	NRSWA Inspector	01495 235733	07768 507943	
Jonathan Day	NRSWA Inspector	01495 235784	07768 507945	
Chris Williams	Technician	01495 235737		
Max Nebe	Technician (Drainage)	01495 235746		
Gary Yates	Technician (Street lighting)	01495 235783	07768 507946	
Steve Matthews	H & S Officer	01495 235791	07901 712358	
Jeff Witts	Supervisor	01495 235704	07901 712356	01495 228963
Gareth Jones	Supervisor	2	07733 368142	
Nathan Jones	Supervisor	01495 235705	07768 701096	01443 833293
Penmaen Depot		01495 235724	Fax	01495 235751
Bedwas Depot		02920 852331	Fax	01222 880860
Winter		24 hour line		Rota held by
Emergency Officer				T-Y-B control room.
Out of Hours	Tir-Y-Berth control room	01443 875500		

#### Other Service Contacts.

POLICE.

Gwent (Cwmbran)	01633 838111
South Wales (Bridgend)	01656 655555

**GWENT POLICE - Main Police Stations** Blackwood 01495 223673 Caerphilly 02920 852999 Cwmbran 01633 838999 Pontypool 01495 764711 Risca 01633 612391 01495 723161 Tredegar

SOUTH WALES FIRE AND RESCUE SERVICE •

HQ

01443 232000

WELSH AMBULANCE SERVICES NHS TRUST. •

Divisional Headquarters	01495 765401 (Office Hours)
Mamhilad Park Estate	01495 769834 (Control Centre)

All ambulance station locations listed in appendix J

#### EMERGENCY PLANNING ٠

Caerphilly County Borough Council. During Office Hours via Emergency Planning Officer 01495 235009

01495 235321

Out of hours via the Councils 24 hours Control Centre on 01443 875500 who will contact the Environmental Health Duty Officer on your behalf.

#### NEIGHBOURING AUTHORITIES

#### **BLAENAU GWENT COUNTY BOROUGH COUNCIL** •

Office Hours Name	Designation	Telephone	Fax	
A Reed	Acting Highway &			
	Transport Manager	01495 355612	01495 312357	
Neil Hughes	(access to salt supplies)	01495 355629	07971 893377	
Outside Office Hours				
Emergency Service		01495 311556		

## <u>CITY of CARDIFF COUNCIL</u>

Office Hours Name	Designation	Telephone	Fax
Chris Mitchell	Engineer	029 20785200	029 20785218

#### <u>NEWPORT CITY COUNCIL</u>

Office Hours Name	Designation	Telephone	Fax
F. Powell R. Lloyd Out of Hours	Assistant Engineer Asst.Maint Manager	01633 232656 01633 232694 01633 253447	01633 233296 " (ex-directory)

#### TORFAEN COUNTY BOROUGH COUNCIL

Office Hours Name	Designation	Telephone	Fax
Andrew Pritchard	Structures and Network Officer	01495 766747	01495 766709
Outside Office Hours			
Duty Officer	(All Emergencies)	01495 762200	

#### • MERTHYR TYDFIL COUNTY BOROUGH COUNCIL

Office Hours Name	Designation	Telephone	Fax
J Morgan M Williams M. Thomas	Network Group Man. Team Leader Head of Env. Services	01685 724931 01685 724932 01685 725345	01443 693872 01685 693872
Lifeline Outside Office Hours	s -Duty Officer	01685 725336 07800 708591	01685 387740

#### RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

Name	Designation	Telephone	Fax
Dan Bond	Sen. Eng. Roads.	01443 494793	01443 494705
Howard Thomas	H/w Infrastructure & Asset Manger	01443 494801	01443 494705
Out of Hours-Duty Officer		0831 141900	

# SOUTH WALES TRUNK ROAD AGENT

Neath Port Talbot (South Wales Trunk Road Agency)					
Name	Designation	Telephone	Fax		
Rodry Paul	Network Resilience	01792 325927	01792 325905		
	Engineer				
Out of Hours-Duty Officer		02920 629421			

# • MONMOUTHSHIRE COUNTY COUNCIL.

Name	Designation	Telephone	Fax		
Glyn Edmunds	Highway & Waste Operations Manager	01600 712354	01600 712293		
Outside Office Hours Emergency Service 01633 873274					

# Appendix F.

## Social Service Locations.

SOCIAL SERVICES				
OFFICES				
OFFICES				
Bargoed	Ty Gilfach			
Blackwood	Penmaen House			
Blackwood	Woodfieldside			
Caerphilly, Mill Road Office	Mill Road			
Caerphilly SS Facilities	Ty Pontygwindy			
Oakdale	Foxes Lane			
RESIDENTIAL ACCOMMODATION				
Beatrice Webb HFE, Blackwood	Bloomfield Road, Blackwood, NP2 1QB			
Brodawel HFE, Caerphilly	Court Road, Energlyn, Caerphilly, CF83 2QW			
Castle View HFE, Caerphilly	Claude Road, Caerphilly, CF83 1UZ			
Hengoed Group Home	14 Graig Road, Hengoed, CF82 7SJ			
Ty Ni	Caledfryn Way, Penyrheol, Caerphilly.			
Min-y-Mynydd HFE, Rhymney	Eglwys Fan, Hill Street, Rhymney, NP22 5JJ			
Montclaire Avenue Residential Home	65, Montclaire Avenue, Blackwood, NP2 1EF			
Ty Clyd HFE, Bargoed	Heol Fargoed, Bargoed, CF81 8PP			
Ty Clyd bungalow - CHAD	Heol Fargoed, Bargoed, CF81 8PP			
Ty Iscoed HFE,	Woodland Drive, Newbridge, NP1 5FQ			
Ty Gwilym Residential Home, Caerphilly	Court Road, Energlyn, Caerphilly, CF83 2LU			
DAY/FAMILY CENTRES				
Brondeg Day Centre, Blackwood	Bloomfield Road, Blackwood, NP12 1QB			
Brooklands Risca Adult Day Centre, Risca	Brooklands Road, Risca, NP1 6BU			
Brooklands Risca Family Centre	Brooklands Road, Risca, NP1 6BU			
Energlyn Day Centre	Court Road, Energlyn, Caerphilly, CF83 2QW			
Markham Resource Unit	Pantycefn Road, Markham, NP2 0RX			
Pentrebane Drop-in Centre	18 Pentrebane Street, Caerphilly, CF83 1FR			
Springfield Adult Day Centre,	Glanynant, Pengam, NP12 2XG			
Ystrad Mynach Day Care Centre	Caerphilly Road, Ystrad Mynach, CF82 7EP			

# <u>Appendix G.</u>

## Major / Minor Shopping Areas.

Major Shopping Centres	No. of Staff Req	Minor Shopping Centres	No. of Staff Req
Bargoed	8	Aberbargoed	2
Bedwas	8	Abercarn	2
Blackwood	8	Abertridwr	2
Caerphilly	8	Cefn Fforest	2
Nelson	4	Cross Keys	2
Newbridge	8	Crumlin	2
Rhymney	4	Cwmfelinfach	2
Risca	8	Deri	2
Ystrad Mynach	8	Fleur-De-Lys	2
	<u>64</u>	Fochriw	2
		Gelligaer	2
		Glan-y-nant	2
		Graig-Y-Rhacca	2
		Lansbury Park	2
		Llanbradach	2
		Maesycwmmer	2
		Markham	2
		New Tredegar	2
		Oakdale	2
		Pantside	2
		Penllwyn	2
		Penpedairheol	2
		Pentwynmawr	2
		Pontlottyn	2
		Senghenydd	2
		Trethomas	2
		Trinant	2
		Ty-Sign	2
			<u>56</u>

# <u>Appendix H.</u>

## **Doctors Surgeries.**

Name	Address		
Aber Medical Practice (Abertridwr)	30 Thomas Street		Abertridwr
Bedwas Surgery	East Avenue		Bedwas
Llan Aber Practice (Llanbradach)	Rear Of Church Street		Llanbradach
Avicenna Medical Centre (Pontlanfraith)	Blackwood Road		Pontllanfraith
Dakdale Medical Centre	The Square		Oakdale
Bargoed Hall Family Health Centre	Cardiff Road		Bargoed
The Surgery (Cefn Fforest)	Bryn Road		Cefn Fforest
Bryntirion Surgery (Bargoed)	West Street		Bargoed
The Surgery (Aberbargoed)	Pant Street		Aberbargoed
Clinic Premises (Nelson)	Bryncelyn		Nelson
Court House Medical Practice (Caerphilly)	Heol Bro Wen		Caerphilly
Lansbury Surgery	Wedgewood Court	Lansbury Park	Caerphilly
Troedybryn Surgery (Penyrheol)	16 Shopping Parade	Troedybryn	Penyrheol
The Lawn Medical Practice (Rhymney)	Rhymney Integrated Health and Social Care Centre	Unit 22 The Lawn Ind Est	Rhymney
Markham Medical Centre	James Street		Markham
Meddygfa Cwm Rhymni Practice (Victoria Surgery)	Rhymney Integrated Health and Social Care Centre	Unit 22 The Lawn Ind Est	Rhymney
Meddygfa Cwm Rhymni Practice (Deri Surgery)	Deri Surgery	5 Riverside Walk	Deri
Meddygfa Cwm Rhymni Practice (White Rose Medical Centre)	White Rose Medical Centre	White Rose Way	New Tredegar
Meddygfa Gelligaer Surgery	Heol Hen Ysgol		Gelligaer
Gilfach Surgery	Cardiff Rad		Bargoed
Nantgarw Road Medical Centre (Caerphilly)	4 Beddau Way		Caerphilly
Senghenydd Health Centre	Parc Place		Senghenydd
North Celynen Practice (Crumlin)	Crown Street		Crumlin
North Celynen Practice (Newbridge)	Ashfield Road		Newbridge
Dakfield Surgery (Ystrad Mynach)	Oakfield Street		Ystrad Mynach
/strad Mynach Health and Education Centre	16 Bedwlwyn Road		Ystrad Mynach
Pengam Health Centre	Glan yr Afon Lane		Fleur De Lis
Pontllanfraith Health Centre	Blackwood Road		Pontllanfraith
Risca Surgery	Church House Field	St Mary's Street	Risca
Castell Clinic (Cwmfelinfach)	Stanley Street		Cwmfelinfach
South Street Surgery (Bargoed)	South Street		Bargoed
Bryn Surgery	Bryn Road		Cefn Fforest
St Luke's Surgery (Abercarn)	Off Gwyddon Road		Abercarn
Sunnybank Health Centre (Cefn Fforest)	Bryn Road		Cefn Fforest
Tonyfelin Medical Centre (Caerphilly)	Tonyfelin Surgery	Bedwas Road	Caerphilly
Ty Bryn Surgery (Trethomas)	The Bryn		Trethomas
Graig y Rhacca Surgery	Graig y Rhacca Resource Centre	59 - 71 Grays Gardens	Machen
Machen Surgery	The Crescent		Machen
The Village Surgery (Llanbradach)	2 - 3 Lewis Terrace		Llanbradach
Wellspring Medical Centre (Risca)	Park Road		Risca
Castle View Surgery	Unit 6B	6 Cae Meillion	Caerphilly

# <u>Appendix I.</u>

## **School Locations**

Area	SCHOOLS
4	Abercarn Primary - Chapel of Ease, Abercarn, NP11 5LH
1	Abertysswg Primary - Walter Street, Abertysswg, NP22 5AQ
7	Bedwas High School - Newport Road, Bedwas, CF83 8BJ
7	Bedwas Infants - St Mary's Street, Bedwas, CF83 8EE
7	Bedwas Junior - Church Street, Bedwas, CF83 8EB
2	Blackwood Comprehensive - Ty Isha Terrace, Blackwood, NP12 1ER
2	Blackwood Primary - Apollo Way, Blackwood, NP12 1WA
2	Bryn Primary - Forest Hill, The Bryn, Pontllanfraith, NP12 2PL
1	Bryn Awel Primary - Eglwys Fan, Rhymney, NP22 5JJ
2	Cefn Fforest Primary - Cefn Fforest Avenue, Cefn Fforest, NP12 3JX
3	Coed Y Brain Primary - School Street, Llanbradach, CF83 3LD
4	Crumlin High Level Primary - Commercial Road, Crumlin, NP11 4PX
3	Cwm Glas Infants - Pant Glas, Llanbradach, CF83 3PD
5	Cwm Ifor Primary - Heol Aneurin, Penyrheol, Caerphilly, CF83 2PG
7	Cwmaber Infants - Bryngelli Terrace, Abertirdwr, CF83 4FF
7	Cwmaber Junior - Brynhafod Road, Abertridwr, CF83 4BH
4	Cwmcarn High School - Chapel Farm, Cwmcarn, NP11 7NG
4	Cwmcarn Primary - Newport Road, Cwmcarn, NP11 7LZ
6	Cwmfelinfach Primary - King Street, Cwmfelinfach, NP11 7HL
5	Cwrt Rawlin Primary - Cae Meillion, Caerphilly, CF83 1SN
1	Deri Primary - Glynmarch Street, Deri, CF81 9HZ
3	Derwendeg Primary - Hengoed Road, Cefn Hengoed, CF82 7HP
2	Fleur-de-Lys Primary - School Street, Fleur-de-Lys, NP12 3UX
1	Fochriw Primary - Pontlottyn Road, Fochriw, CF81 9LL
3	Gilfach Fargoed Primary - Vere Street, Gilfach, Bargoed, CF81 8LB
3	Glyngaer Primary - Oxford Street, Glyngaer, Gelligaer, CF82 8FF
5	Graig y Rhacca Primary and Nursery Community School - Machen, CF83 8WW
3	Greenhill Primary - Penywrlod, Gelligaer, CF82 8EU
5	Hendre Infants - St Cenydd Road, Trecenydd, Caerphilly, CF83 2RP
5	Hendre Junior - St Cenydd Road, Trecenydd, Caerphilly, CF83 2RP
5	Hendredenny Park Primary, White Cross Lane, Hendredenny, Caerphilly, CF83 2RL
3	Hengoed Primary - Chapel Terrace, Hengoed, CF82 7JU
3	Heolddu Comprehensive - Mountain Road, Bargoed ,CF81 8XL
3	Lewis Girls Comprehensive - Oakfield Street, Ystrad Mynach, CF82 7WW
3	Lewis School Pengam - Gilfach, Bargoed, CF81 8LJ

2	Libanus Primary - Libanus Road, Blackwood, NP12 1EH
7	Llancaeach Junior - Commercial Street, Nelson, CF46 6NF
7	Llanfabon Infants - Bryncelyn Avenue, Nelson, CF46 6HL
5	Machen Primary - Commercial Road, Machen, CF83 8NA
6	Maesycwmmer Primary - Tabor Road, Maesycwmmer, CF82 7PU
2	Markham Primary - Pantycefn Road, Markham, NP12 0QD
7	Nant y Parc Primary - Universal Site, Senghenydd, CF83 4GL
4	Newbridge Comprehensive - Bridge Street, Newbridge, NP11 5FE
4	Oakdale Comprehensive - Penmaen Road, Blackwood, NP12 0DT
4	Pantside Primary - Old Pant Road, Newbridge, NP11 5DE
2	Park Primary - Park Crecsent, Bargoed, CF81 8PN
2	Pengam Primary - Commercial Street, Pengam, NP12 3ST
2	Penllwyn Primary - Fleur De Lys Avenue, Pontllanfraith, NP12 2NT
4	Pentwynmawr Primary - Tonypistill Road, Newbridge, NP11 4HJ
1	Phillipstown Primary - Cefn Rhychdir Road, Phillipstown, NP24 6XE
5	Plasyfelin Primary - Lewis Drive, Churchill Park, Caerphilly, CF83 3FT
2	Pontllanfraith Comprehensive - Coed Cae Du Road, Pontllanfriath, NP12 2DA
4	Pontllanfraith Primary - Penmaen Road, Pontllanfraith, NP12 2DN
1	Pontlottyn Primary - Fochriw Road, Pontlottyn, CF81 9RG
5	Rhydri Primary - Rudry, Caerphilly, CF83 3DF
1	Rhymmey Comprehensive - Mill Field, Abertysswg, NP22 5XF
6	Risca Comprehensive - Pontymason Lane, Rogerstone, NP11 6YY
6	Risca Primary - Danygraig Road, Risca, NP11 6DB
5	St Cenydd Comprehensive - St Cenydd Road, Trecenydd, Caerphilly, CF83 2RP
3	St Gwladys Bargoed School - Church Place, Bargoed, CF81 8RN
5	St Helens Catholic Primary - Lansbury Park, Caerphilly, CF83 1QH
5	St James' Primary School - Lansbury Park, Caerphilly, CF83 1QH
5	St Martins Comprehensive - Hillside, Caerphilly, CF83 1UW
3	Tir-Y-Berth Primary - New Road, Tir-Y-Berth, Hengoed, CF82 8AU
4	Trinant Primary - Conway Road, Pentwyn, Crumlin, NP1 4JN
3	Trinity Fields Special School - Caerphilly Road, Ystrad Mynach, CF82 7DT
5	The Twyn School - East View, Caerphilly, CF83 1UT
6	Ty Isaf Infants - Mill Street, Risca, NP11 6EF
6	Ty Sign Primary - Elm Drive, Risca, NP11 6HJ
4	Tynewydd Primary - Greenfields, Newbridge, NP11 4QZ
7	Tyn-Y-Wern Primary - Heol yr Ysgol, Trethomas, CF83 3BR
. 1	Upper Rhymney Primary - Oakland Terrace, Rhymney, NP22 5EP
6	Waunfawr Primary - Waunfawr Road, Cross Keys, NP11 7PG
1	White Rose Primary - School Street, Elliotstown, NP24 6DW
· ·	

6	Ynysddu Primary - High Street, Ynysddu, NP11 7HL
1	Ysgol Bro Sannan - Ty Fry Road, Aberbargoed, CF81 9FN
2	Ysgol Gyfun Cwm Rhymni - Fleur De Lys, Blackwood, NP12 3JQ
3	Ysgol Gymraeg Bro Allta - Central Street, Ystrad Mynach, CF82 7XQ
4	Ysgol Gymraeg Cwm Derwen - Beech Grove, Oakdale, NP12 0JL
2	Ysgol Gymraeg Gilfach Fargoed - Commercial Street, Gilfach, Bargoed, CF81 8JG
4	Ysgol Gymraeg Trelyn - Commercial Street, Pengam, NP12 3ST
5	Ysgol Gynradd Gymraeg Caerffili - Parcfelin Street, Caerphilly, CF83 3AH
4	Ysgol Gymraeg Cwm Gwyddon - Gwyddon Road, Abercarn, NP11 6GX
7	Ysgol Ifor Bach - Upper Brynhyfryd Terrace, Senghenydd, CF83 4GL
5	Ysgol Gynradd Gymraeg Y Castell - Crescent Road, Caerphilly, CF83 1WH
1	Ysgol y Lawnt - Surgery Hill, Station Road, Rhymney, NP22 5LS
3	Ystrad Mynach Primary - Lewis Street, Ystrad Mynach, CF82 7AQ
4	Rhiw-Syr-Dafydd Primary - Maes y Garn Road, Oakdale, NP12 0NA
3	Ysgol Penalltau – Cwm Calon Road, Hengoed, CF82 7QX
3	The Learning Centre – Hanbury Street, Glan y Nant, NP12 3XP

# Appendix J.

## Fire / Ambulance Station Locations.

# Fire Stations

Rhymney	Havard's Row, Rhymney, NP22 5PA
Caerphilly	Waunfach Street, Caerphilly, CF83 3HL
Abercarn	Darren Drive, Prince of Wales Industrial Estate, Abercarn
Risca	New Park Road, Risca, NP11 7AE
Aberbargoed	Angel Way, Aberbargoed. CF81 9FX

# Ambulance Locations.

Bargoed	Bedwellty Road, Aberbargoed, CF81 9AW
Nelson	Bryncelyn, Nelson, CF46 6HR
Blackwood	Lon Pennant, Cwmgelli, Blackwood, NP12 1YR

## Appendix K.

## Weather Forecast (example)

# 24 Hour Domain Forecast for Capita Gwent Consultancy

Valid from noon on Tuesday 23 Feb 2012 to noon on Wednesday 24 Feb 2012

Minimum Temperature and Hazard Summary										
DomainReadiness ColourMin RSTTime Below ZeroMin AirIceHoar Frost						Snow	Fog	Strong Wind	Rain	
Monmouthshire under 300m	AMBER	PS01	N/A	PS02	N/L	N/H	Y/L	N/L	Y/L	N/L
Monmouthshire over 300m	RED	PS00	N/A	MS02	N/L	N/H	Y/H	N/L	Y/L	N/L
Caerphilly, Torfaen, Blaenau Gwent under 300m	AMBER	PS01	N/A	PS02	N/L	N/H	Y/L	N/L	Y/L	Y/L
Caerphilly, Torfaen, Blaenau Gwent over 300m	RED	MS01	1200- 1500	MS02	Y/L	N/H	Y/H	N/L	Y/L	Y/L

Details				
Wind (mph)	E 10-15 gusting up to 25, becoming E 5 by midnight.			
Ice / Hoar Frost	Some ice likely in Caerphilly, Torfaen and Blaenau Gwent this afternoon as some roads may still be below freezing, but road surface temperatures are slowly rising. No frost expected.			
Snow	Snow 1200-2000, with temporary accumulations of 1-3 cm at low levels, and as much as 10-15 cm above 300 m.			

24 Hour Weather Summary				
Monmouthshiro	Rain and sleet will turn to snow this afternoon. This will last until mid- evening when it will tend to turn back to rain before fading over the coming hours. It will never completely dry up over night, staying cloudy and damp, and continuing so into Wednesday morning.			
Caerphilly, Torfaen, Blaenau Gwent	As Monmouthshire			

OpenRoad Forecaster: Dan Grey, Tel: 01392 XXXXXX Transmitted by the Met Office on 23 February 2012 at 12:00 UTC

# <u>Appendix L.</u>

## Fleet Details.

Front Line vehicles.

ROUTE	VEHICLE	REG. NO.	FLEET NO.	DEPOT	CAPACITY
1	Mercedes	CN63BYG	9234	PENMAEN	6 m <sup>3</sup>
2	Mercedes	CN12CWR	9231	PENMAEN	6 m <sup>3</sup>
3	Mercedes	CN61BPK	9228	PENMAEN	6 m <sup>3</sup>
4	Mercedes	CN12CWP	9230	PENMAEN	6 m <sup>3</sup>
5	Mercedes	CN60AMK	9224	PENMAEN	6 m <sup>3</sup>
6	Mercedes	CN61BPO	9229	PENMAEN	6 m <sup>3</sup>
7	Mercedes	CN12CWT	9232	BEDWAS	6 m <sup>3</sup>
8	Mercedes	CE63KZY	9233	BEDWAS	6 m <sup>3</sup>

# Reserve / Backup Vehicles.

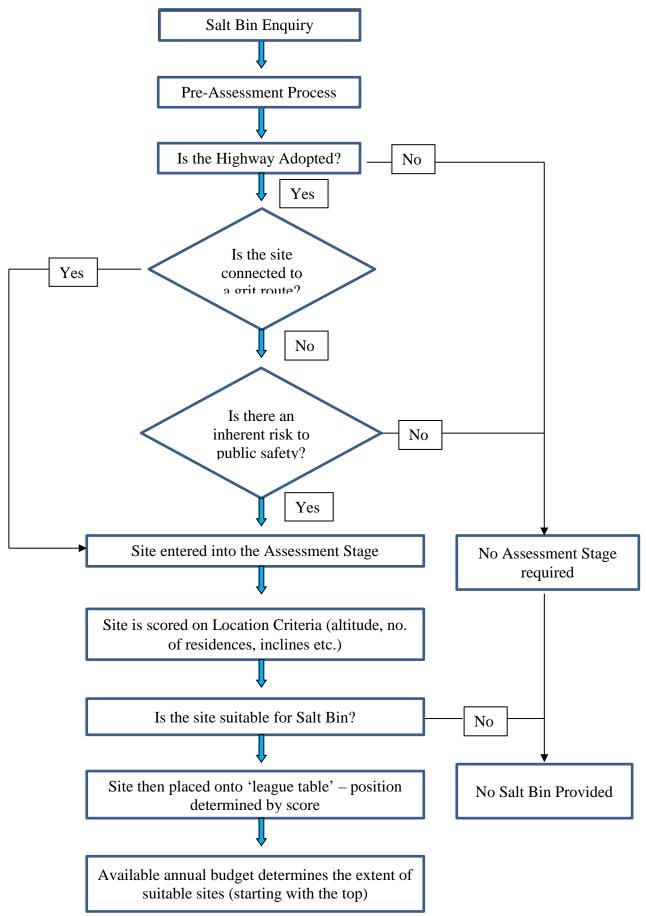
ROUTE	VEHICLE	REG. NO.	FLEET NO.	DEPOT	CAPACITY
N/A	Mercedes	CN08BOU	9220	PENMAEN	6 m <sup>3</sup>
N/A	Mercedes	CN08BOJ	9221	PENMAEN	6 m <sup>3</sup>
N/A	Mercedes	CN60AMU	9226	PENMAEN	6 m <sup>3</sup>
N/A	Mercedes	CN60AMO	9225	PENMAEN	6 m <sup>3</sup>
N/A	Mercedes	CN61BPF	9227	BEDWAS	6 m <sup>3</sup>

Additional Vehicles.

ROUTE	VEHICLE	REG. NO.	FLEET NO.	DEPOT	CAPACITY
N/A	DAF	TBA	N/A	BEDWAS	1.5 m <sup>3</sup>
N/A	DAF	TBA	N/A	BEDWAS	1.5 m <sup>3</sup>
N/A	DAF	TBA	N/A	PENMAEN	1.5 m <sup>3</sup>
N/A	DAF	TBA	N/A	PENMAEN	1.5 m <sup>3</sup>
N/A	DAF	TBA	N/A	PENMAEN	1.5 m <sup>3</sup>
N/A	DAF	TBA	N/A	PENMAEN	1.5 m <sup>3</sup>
N/A	ΤΟΥΟΤΑ	FG61SBO	N/A	PENMAEN	N/A
N/A	ΤΟΥΟΤΑ	FG61SBU	N/A	PENMAEN	N/A
N/A	ΤΟΥΟΤΑ	FG61SBV	N/A	BEDWAS	N/A

#### Appendix M.

#### Salt Bins - Decision Flow Chart.



# **Grit/Salt Bin Assessment Form**

Location Details					
Proposed Placement De	etails				
Is location connecting onto an existing salt route?	Yes	No	C	Details	
Is there a risk to public safety?	Yes	No	No Details		
Assessment Criteria (use this if Yes to connect	ting ont	to a Salti	ing l	Route or Risk to Public safety)	
Criteria		Score Point	-	Details	
Altitude					
Number of residences affected (appoint per residence if maximum score)					
Highway Gradient ( appoint per degree if maximum score)					
Specific circumstances for this location. (nearby school / doctor`s surgery, residential care home Dialysis patients etc.)					
Total					

Assessment Officer:..... Date:....

## Criteria Explanations overleaf

# Form Explanations.

Risk to Public Safety – inherent risks at this location such as high trafficked roads/ footpaths, presence of vulnerable adults/ children, exposed to the elements, predominantly in the shade (especially in the mornings) etc.

The scoring is as follows for each criteria:

#### Altitude.

- 400 350m score 7
- 350 300m score 6
- 300 250m score 5
- 250 200m score 4
- 200 150m score 3
- 150 100m score 2
- 100 50m score 1
- 50m 0m score zero

#### Number of properties affected.

- 5 points for a single property,
- 10 points for a street
- 15 points for an estate.

#### Gradient of slope.

- 0 points for a flat road,
- 5 points for a slight gradient up to 10% (1 in 10)
- 10 points for medium gradient up to 25% (1 in 4)
- 15 for a steep gradient over 25% (1 in 4+)

#### Specific Circumstances.

0 - 10 - These are judged on a case by case basis, e.g. locations in shade, junctions, school crossings; as well as the siting of schools, hospitals, residential homes etc.

#### Weighting.

Each score is taken as set out, any weighting has already been considered in the existing figure range.

# <u>Appendix N.</u>

Document Distribution List.

To Whom Sent. Type of Copy & Nr. E = Electronic copy, H = Hard printed copy, CD = Compact Disc	
Head of Environmental Services, Torfaen County Borough Council.1CChief Engineer, Newport City Council.1CEngineering Manager, Merthyr Tydfil County Borough Council.1CChief Engineer, City of Cardiff Council .1CChief Engineer, City of Cardiff Council .1CChief Constable, Gwent Police.1CChief Fire Officer.1CChief Ambulance Officer.1CMeteorological Contractor .1CNational Farmers Union.1CFarmers Union of Wales.1CAber Valley Community Council.1CBargoed Community Council.1CBlackwood Community Council.1CBlackwood Community Council.1CDarran Valley Community Council.1CDarran Valley Community Council.1C	

Llaphradach Community	Council	1CD			
Llanbradach Community Council.					
Maesycwmmer Community Council.					
New Tredegar Community Council.					
Nelson Community Centre.					
Penyrheol, Trecenydd & E	Energlyn Community Council.	1CD			
Rhymney Community Co	uncil.	1CD			
Rudry Community Council.					
Van Community Council.		1CD			
Councillor T. Davies,	Chair Regeneration & Environment				
	Scrutiny Committee	1CD			
Councillor E. Aldworth, Vi	ce Chair Regeneration & Environment				
	Scrutiny Committee	1CD			
Councillor T. Williams, Ca	binet Member Highways, Transportation &				
	Engineering	1CD			
Councillor K James,	Cabinet Member Regeneration, Planning				
	& Sustainable Development	1CD			
Sirhowy Enterprise Way Limited.					
Sirhowy Enterprise Way CCBC Nominee.					
All elected members, 1 cc		1 E			
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## Appendix O.

#### **Document Amendment Record.**

#### Amendment Record

NB Issue status of any page within the manual indicated by 'footer' at bottom left hand side of each individual page of the manual.

AMENDMENT		DISCARD		INSERT	INSERT	
NO.	DATE	PAGE(S)	ISSUE NO.	PAGE(S)	ISSUE NO.	
Version 1	1/10/ 2010	ALL		ALL		
Version 2	1/10/ 2011	ALL		ALL		
Version 3	1/10/ 2012	ALL		ALL		
Version 4	1/10/ 2013	ALL		ALL		
Version 5	1/10/ 2014	ALL		ALL		
Version 6	1/10/ 2015	Removal of 9 salting routes (Appx A)		Retracing of 8 salting routes (Appx A)		
Version 7	1/10/ 2016			Additional matrix and flow chart – salt bin assessment (Appx M)		



# REGENERATION AND ENVIRONMENT SCRUTINY COMMITTEE – 28TH JUNE 2016

## SUBJECT: WINTER SERVICE PLAN ENDORSEMENT

#### **REPORT BY: CORPORATE DIRECTOR COMMUNITIES**

#### 1. PURPOSE OF REPORT

- 1.1 This report will outline the background and content of the Council's Winter Service Plan (WSP) (in Appendix A) and explain the process by which it is reviewed on an annual basis.
- 1.2 For Scrutiny members to review the Winter Service Plan's process and key areas and provide comment for consideration prior to seeking Cabinet endorsement.

#### 2. SUMMARY

- 2.1 Highways Operations has produced a Winter Service Plan since the inception of Caerphilly County Borough Council (CCBC).
- 2.2 The purpose of the plan is to explain the Council's responsibilities of maintaining the highway infrastructure network during the winter maintenance period (currently October to April).
- 2.3 The plan also provides guidance to elected councillors, council staff and the public on operational procedures and contact points during the winter maintenance period.
- 2.4 The content of the plan has been divided into the following sections:
  - Winter Service Policy
  - Roles & Responsibilities
  - Operation Plan Pre-salting
  - Operational Plan Snowing
  - Winter Emergency Flooding
  - Communications Plan
  - Weather Forecast
  - Salt Strategy
  - Resources
- 2.5 Members are asked to scrutinise the process and overall content, then to provide comment prior to seeking endorsement by Cabinet.

#### 3. LINKS TO STRATEGY

3.1 This report links directly to the regeneration of the county borough making Caerphilly County Borough a better place to live and work.

- 3.2 The report links directly to the Council's priority to improve accessibility throughout the county borough by improving the transport network, enabling individuals to move freely around Caerphilly.
- 3.3 There is also a link to ensuring communities are safer by maintaining a safety standards for the development of integrated, efficient local and regional transport system, on which public transport, private users, cycling and walking networks can operate.
- 3.4 The link to greener and cleaner objectives are centred around reducing our carbon footprint and improving sustainability, taking steps to adapt to the local effects of climate change (warmer and wetter weather patterns).
- 3.5 The Well-being of Future Generations (Wales) Act 2015 came into force this April, it sets out seven Well-Being Goals; the focus of this report supports a Sustainable Wales, A Prosperous wales, A Wales of Cohesive Communities and a Globally Responsible Wales

#### 4. THE REPORT

- 4.1 The Winter Service Plan has existed since the instigation of CCBC and in a more simplified format prior to this. The content has increased in complexity and quantity over the years, now culminating in an 85 page document outlining the Highway Operations' approach to Winter Maintenance Service for the coming season.
- 4.2 The purpose of the plan is to explain the Council's responsibilities of maintaining the highway infrastructure network during the winter maintenance period (currently October to April).
- 4.3 The plan also provides guidance to elected councillors, council staff and the public on operational procedures and contact points during the winter maintenance period; so clearly demonstrating the plans and contingencies that will be in place for the coming season.
- 4.4 To date the Winter Service Plan has been annually reviewed by Elected Councillors and key Council Officers, with a four week period dedicated to this process. The feedback comments and amendments are then incorporated into the final version, which is than posted to all appropriate parties and on to the Caerphilly internet site (in October). It is envisaged that this process will continue for 2016-17 winter season, after this Cabinet endorsement process has been completed.
- 4.5 The report also takes into account The Highways Act 1980 Section 41, which places a duty on the Local Authority 'to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice' and the 'Transport Resilience Review 2014 A review of the resilience of the transport network to extreme weather events' Department for Transport.
- 4.6 The Winter Maintenance Plan and arrangements can be found on the Caerphilly Council Internet site, on the following link:

http://www.caerphilly.gov.uk/Services/Roads-and-pavements/Gritting-and-snow-clearing

This gives access to the following information:

- Winter Service Plan
- Gritting procedures and process
- How gritting works
- Salt storage information
- Gritting Vehicles
- Grit Bin requests.

- 4.7 The Plan sets out the Winter Maintenance Policy for CCBC, with the prioritisation of routes, resources deployed with key post roles and responsibilities. The Plan is divided into nine sections:
- 4.7.1 Winter Service Preamble & Policy this gives the background and basis on which the plan is formulated.
- 4.7.2 Roles and Responsibilities this gives the required posts with their responsibilities and duties.
- 4.7.3 Operational Plan: Pre-salting this encompasses the procedures for salting prior to and post a freezing event, based on the Road Hierarchy which sets the order of prioritisation for the Routes throughout the Borough
- 4.7.4 Operational Plan: Snow Conditions this outlines processes and procedures in a 'white out' event with the activation of the Snow Plan (which includes Ploughing procedures and route prioritisation.
- 4.7.5 Winter Emergency: Flooding outlines the procedure to follow in a flooding event.
- 4.7.6 Communications Plan includes the processes to be followed in response to freezing, snow and flooding events.
- 4.7.7 Weather Forecast outlines the methods and procedures for forecasting freezing, snow and flooding events
- 4.7.8 Salt Stocks outlines the strategic storage of salt and restocking procedures
- 4.7.9 Resources gives an overview of fleet, plant and human resources deployed for the Winter Service Plan.
- 4.8 Of these sections there are a number that require review by Scrutiny members as they cover key issues within the Winter Service Plan, these being:
- 4.8.1 Gritting Route and Road Hierarchy This gives the prioritisation order to the route gritting and snow clearance throughout CCBC, for example clearing major routes, routes required for medical, remote communities before other parts of the network. A review of this section should assist in confirming the prioritisation order is appropriate and that key stakeholders have not been overlooked.
- 4.8.2 Salt Stocks and Location This gives the minimum amount of salt that needs to be held by CCBC for each winter season and their respective locations. A review will help clarify the amounts required for each season and whether the members consider the current deployment of salt stores are adequate for the needs of the highway network over the winter season.

The current locations for salt storage (with tonnage capacities) are:

Penmaen Depot	1,500T
Bedwas Depot	5,000T
Pontlottyn Depot	.1,500T
Strategic Salt Stocks (sited in Ebbw Vale)	2,000T

There is an initiative to enlarge the salt storage capacity in the Penmaen location, as it is more centrally located and is the centre of operations for the majority of Gritting routes. This will probably take the form of a larger salt storage barn and require an injection of capital funding to cover its purchase, design, construction and any associated enabling works.

4.8.3 Weather Forecasting – This outlines the methods and procedures used to make the appropriate decisions for a freezing or winter event. Reviewing this will assist in both informing the members of systems used and how decisions are made, with any useful contributions as to how this could be improved.

4.8.4 Salt Bin Request Process – This is outlined in Appendix B and includes a decision flow-chart and an assessment form to show how requested locations are scored, so forming a prioritised order of potential sites. This is a recent revision, so does not form part of the Winter Service Plan for last year (2015-16). It has been incorporated into the Winter Maintenance Procedures (2016-17) to help clarify the process followed when carrying out these assessments. A review of this section should both inform and invite further comment on the effectiveness of the process and possible improvements. This will then form part of the Winter Service Plan review process as outlined in 4.4.

#### 5. EQUALITIES IMPLICATIONS

- 5.1 A functional and correct Winter Service Plan will benefit the vulnerable, young and elderly, ensuring their services (including emergencies), remain robust throughout the winter period (October to April).
- 5.2 Taking steps to adapt to the local effects of climate change (warmer and wetter weather patterns), centred around reducing our carbon footprint, will also benefit the less mobile/ vulnerable members of the community.

#### 6. FINANCIAL IMPLICATIONS

6.1 The Winter Maintenance / Severe Weather budget has been held at £1.14M since agreed in 2014-15, protecting this fundamental service area from savings. In parallel an additional amount is being accrued in a separate safeguarded fund to be used for extreme weather events that are outside the Winter Maintenance / Severe Weather budget, this has been capped at £500k.

#### 7. PERSONNEL IMPLICATIONS

7.1 These proposals will not have any direct impact on CCBC personnel, though it should be noted that the Winter Services are resourced by Winter Standby staff draw from a voluntary pool of personnel mainly from Highways Operations and NSC (in-house contractor) with the support of drivers from Refuse & Cleansing.

#### 8. CONSULTATIONS

8.1 All comments received have been taken into consideration and are included in the report.

#### 9. **RECOMMENDATIONS**

- 9.1 For Scrutiny Members to comment on the process of compiling of an annual WSP, considering the key issues as outlined in 4.8
- 9.2 To consider and offer comments in relation to the draft Winter Service Plan, prior to consideration by Cabinet.

#### 10. REASONS FOR RECOMMENDATIONS

10.1 To provide comments and views with regards to the draft Winter Service Plan, prior to approval by Cabinet.

#### 11. STATUTORY POWER

11.1 Highway Act 1980. Well-being of Future Generations (Wales) Act 2016.

Graham Parry - Highway Operations Group Manager Author: Consultees: Cllr T Williams - Cabinet Member for Highways, Transportation & Engineering Cllr D T Davies – Chair of Regeneration and Environmental Scrutiny Committee Cllr E Aldworth - Vice Chair of Regeneration and Environmental Scrutiny Committee Chris Burns – Interim Chief Executive Christina Harrhy - Corporate Director - Communities Nicole Scammell - Acting Director of Corporate Services and S.151 Terry Shaw – Head of Engineering Services Gail Williams – Interim Head of Legal Services/Monitoring Officer Stephen Harris – Interim Head of Corporate Finance Rob Hartshorn – Head of Public Protection Mark S Williams - Head of Community and Leisure Services Mike Eedy – Finance Manager Trish Reardon – HR Manager David Thomas - Senior Policy Officer (Equalities and Welsh Language Steve Hodges - Network Management Manager

Background Papers:

'Transport Resilience Review 2014 – A review of the resilience of the transport network to extreme weather events' – Department for Transport.

Appendices: Appendix A – Winter Service Plan 2015-16 Appendix B – Grit-bin Decision Flow-chart and Assessment Form