

ABERDEEN CITY COUNCIL Roads Winter Service Plan 2023 – 2024



Specification &

Operational Plan



OPERATIONS & PROTECTIVE SERVICES

ROAD SERVICES

WINTER SERVICE PLAN

2023-2024

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ABERDEEN CITY COUNCIL OPERATIONS AND PROTECTIVE SERVICES

ROADS OPERATIONS

WINTER SERVICE PLAN

2023 - 2024

PART 1 SPECIFICATION

WINTER SERVICE PLAN

PART 1 SPECIFICATION DOCUMENT

1. Policy

- 1.1 The City Council's policy is stated in the report submitted to the Roads Sub-Committee of the Policy and Resources Committee on 19th September 1996 and Policy & Strategy Committee of 5th June 2008.
- 1.2 The Council's policy objectives in relation to winter service is defined as the reduction, as far as practicable, of the effects of adverse weather conditions on the movement of people and vehicles to facilitate safe travel on the higher priority roads in the City.

2. **Priorities and Standards**

2.1 **General**

The Committee agreed that the priorities for treatment and standards of treatment be determined in accordance with the relative importance of any particular road in the Road network, and that the relevant Corporate Director be requested to endeavour to curtail the level of expenditure within the sum provided in the annual budget, bearing in mind the conditions which pertain and the policies set down in the report.

- 2.1.1 Priority 1 routes will be principal roads or other classified roads serving as the main routes of major traffic distributors. Priority 1 routes should also carry heavy traffic flows or serve as major public service bus routes or give access to public service or emergency facilities providing an essential public service. In special circumstances a road which does not meet the above definition may be considered a priority 1 route if it is regularly used and presents special hazards because it is habitually liable to drifting snow or freezing because of altitude or exposure etc. A road need not be considered a priority route at all times.
- 2.1.2 Priority 1 routes shall be separated into two levels those of strategic importance (Strategic Roads and Main Distributor Roads and access roads to emergency services facilities in addition to the detrunked sections of the A92 and A96) and Priority 1 Silver, those of less than strategic importance (Historic Priority 1 routes less Priority 1 Gold routes and Link Roads and Local Access Roads that do not have any special circumstance such as steep slopes, etc. These routes are identified in Appendix C.
- 2.1.3 The standard to be aimed at on Priority 1 routes is that:

For the Priority 1 Gold routes for 24 hours 7 days a week during the winter. For the Priority 1 Silver routes between the hours of 04.45 and 21.00 7 days a week.

These routes should never become impassable to traffic, during the times indicated, unless there are abnormal conditions. Snow and ice clearance should be started as soon as practical when the need for it becomes apparent. Equipment and resources should be provided and should be capable of being deployed sufficiently quickly to be able to

- salt for ice or clear a moderate snowfall of up to 50 millimetres depth (2 inches) within two and a half hours of the physical start of operations.
- 2.1.4 There should be, for these routes an availability of crews and equipment with the Response crews and standby arrangements being such that the response time for an instruction from a responsible officer of the authority to commence winter service operations to the start of snow or ice clearing on site should not be greater than one hour, during the times indicated in clause 2.1.3.
- 2.1.5 Consideration will be given to the pre-salting of priority 1 routes on receipt of an adverse weather forecast to prevent the formation of ice, or to make the clearing of snow or ice from the surface of the road less difficult.
- 2.1.6 A list of priority 1 Gold and Silver routes should be drawn up. The routes will be collated into convenient lengths to be dealt with by one or more salt stores and the need to keep mileage, which is run empty for reloading to an absolute minimum.
- 2.1.7 The priority 1 Gold and Silver routes should be reviewed annually in the late summer/autumn months to take account of changes in the road layout e.g. change from single to dual carriageway or in the light of new development and particularly the opening of new community facilities e.g. hospitals or similar, or in the light of changes in the road network and amendments to the routing of Public Transport.
- 2.1.8 Priority 2 routes will be principal and other classified roads not included in the priority 1 routes but which serve as main roads or as traffic distributors and which carry medium traffic flows or give access to community or public facilities of a non-essential nature. These routes will contain the (Category 3b Secondary Distributor routes 4a Link Roads).
- 2.1.9 In order to provide an efficient and effective use of labour and plant several of the Priority 2 Routes may be included in the Priority 1 Gold and Silver routes, the remaining Priority 2 routes will only be treated once the combined Priority 1 & 2 routes have been opened to traffic. The remaining Priority 2 roads will be dealt with on an "Area Response" basis with the allocation of resources to the defined areas being subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity. Additional resources from external Contractors may be employed to assist in the operation.
- 2.1.10 Priority 3 locations (Category 4b Link Roads) such as access roads, service roads, cul de sacs and minor roads where it could be expected that residents and employees etc could make their way with some difficulty in all but abnormal conditions to the nearest higher priority route.
- 2.1.11 The standard for Priority 3 locations would be that they would not normally be treated unless conditions were severe enough to prevent the passage of emergency vehicles, where it was considered in the light of prevailing weather forecasts that the conditions might be expected to persist for some time or that there was an exceptional depth of snow packed snow or ice. In the case of a medical emergency or an event such as a funeral the location in question would be treated. Priority 3 locations due to width of access, or they are dead ends will not always be accessible with normal winter

- maintenance plant and would not be treated until all routes of a higher priority had been opened to traffic.
- 2.1.12 Non-Aberdeen City Council maintained roads and roads or lanes providing a secondary means of access for service vehicles together with roads on which there are no direct accesses to any habitations would not be treated except in the case of a medical emergency.
- 2.1.13 In extreme weather conditions only, Priority 1 routes will be treated. Should salt stock levels diminish, salt treatment of Areas will be stopped, then Priority 2 routes, until only priority 1 routes are being treated.

2.2 Priorities and Standards – Footways & Cycle Ways

- 2.2.1 The priority with regard to the treatment of footways is that, precedence will be given to those footways and cycleways in the City for which the Council is responsible and which carry the greatest number of pedestrians. This means the central areas of the City where the shopping and commercial facilities etc are concentrated. Precedence will also be given to footways and gradients, which are so steep, that they would be dangerous when covered with ice or hard packed snow. This may be altered by the duty supervisor or the duty officer depending on the circumstances that are being encountered.
- 2.2.2 The standard to be aimed at for footways on the Priority 1 list is that, these footways should be kept in a safe condition for pedestrians. In "normal" conditions snow or ice clearance should be started as soon as practicable when the need for such treatment becomes apparent. Equipment and resources should be provided and should be capable of being deployed sufficiently quickly to be able to begin treatment of a moderate snowfall between the hours of 04.45 and 15.45 Monday to Sunday. At weekends the duty supervisor or the duty officer will determine if additional resources can be sourced.
- 2.2.3 All other footways and cycleways in the city will be considered to have a lower priority although again precedence will be given to the more heavily trafficked routes; footways in the vicinity of major public services, medical or community facilities providing an essential public service and where numbers of infirm, elderly, accompanied infants and young children are likely to congregate. These footways and cycleways will be treated only when the Priority 1 routes have been treated and made safe for pedestrian movement and will be dealt with on an Area Response basis with the allocation of resources to the defined areas being subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity.

During forecasts of snow or ice or for periods of snow or ice council employees will be deployed to treat Priority 1 footways and then continue into the Areas. Additional resources from external Contractors may be employed to assist in the operation.

- 2.2.4 Other equipment and resources should be deployed to deal with particular situations as conditions dictate, particularly where treatment has not been carried out and there is a public need for such treatment at individual locations, e.g. bus stops, pedestrian crossings, traffic islands and the like.
- 2.2.5 Privately maintained footways will not normally be treated.

2.2.6 Cycle ways in the city will be considered to have the same priority as lower priority footways. These cycle ways will be treated only when the Priority 2 routes have been treated and will be dealt with on an Area Response basis in conjunction with the footways in that area. The allocation of resources to the defined areas will be subject to the prevailing weather conditions. Treatment of an Area is not subject to a time for completion due to their size and complexity. In keeping with Priority 3 carriageways, it would be expected that cyclists could make their way with some difficulty in all but abnormal conditions to the nearest higher priority route. A list of the cycle ways to be treated was approved at the EP & I Committee on 12 November 2013 and is included in Appendix C.

2.3 Self Help

- 2.3.1 On lower priority routes both on carriageways, lay-bys and footways, grit bins should be provided where they can be sited without inconvenience or danger to residents and road users. Due to the demand on resources to fill grit bins, it has been decided not to increase the number of grit bins. Alternatively, 1 Tonne salt bags will be made available for community use (see 2.3.4). The location of the grit bins can be viewed on the council's web site at: https://www.aberdeencity.gov.uk/services/people-and-communities/get-ready-winter/find-grit-bin
- 2.3.2 Grit bins are maintained and kept filled by the Council so that the salt, salt/sand mixtures are readily available to Council employees, local residents or any other road user should they choose to use the facility. The locations and condition of all grit bins should be reviewed annually in late summer/autumn. It should be noted that whilst making use of grit bins, care should be taken as it is common for them to be used by some members of the public for the disposal of rubbish, such as glass, sharp metal and, in some instances, syringes which could result in injury to the user should they inadvertently come into contact with this material. Hazard warnings should be positioned on the lid of the grit bin.
- 2.3.3 It is recommended that all grit bins be highlighted for public use with a telephone number to call allowing members of the public to inform on the location of the empty grit bin.
- 2.3.4 1 Tonne bags of salt will be issued on application to individual residents on behalf of their community for self help winter treatment. These bags will be issued and replenished on condition that they are situated in a secure location which is accessible to the Council delivery lorry. A communal area such as a car park would not be acceptable as the bags will be susceptible to theft and vandalism.

To receive a bag, the following criteria must be met:*

- A named individual must take responsibility for the salt bag
- Contact details of that named individual (phone no. or email address) must be supplied
- A location within the boundaries of the individuals private property must be provided for the bag to be placed (we regret that we are unable to deliver bags to locations that are on Council owned or adopted assets. **)
- The location requires 1.5m² space for bag to be dropped
- 3m width access for our delivery lorry, with room to turn (we are unable to deliver bags to locations where HGV access is not possible. All applications will be checked for access prior to approval being given)
- The location should be within 5m of public road or carriageway, where possible
- The bag must be accessible to members of the community, i.e. not behind locked gates, or out of sight. The scheme is for community benefit and not just for the

- benefit of the applicant and applicants who attempt to prevent access to bag may have their bag removed without notice.
- Applicants must sign our disclaimer removing Aberdeen City Council's liability for damage caused to vegetation by the salt bags. Salt can kill vegetation and we cannot accept any responsibility for such loss as a result of participation in the scheme. We ask applicants to consider this when selecting a location for their bag.
- Bags must be a reasonable distance apart i.e. we will not deliver bags to closely proximate locations. We will also reject applications where the location already has a permanent grit bin in close proximity.
- Applications after the closing date will not be considered and will be automatically rejected.
- * Please note that that having been approved for a bag in years does not guarantee an application will be successful this year. Council officers have the final say on whether an application is successful and may consider any relevant factor when dealing with requests. ACC reserve the right to close the scheme should demand outstrip service delivery capacity.
- ** Exception may be made where a location is on a recently adopted road where the developer has left a grit bin which has not been adopted but does have space beside it for a bag to be placed. This must not encroach onto the adopted footway in such a way as to restrict the footway width to below 1.5m. Locations at the very end of a footway or carriageway may be considered where the location is not a thoroughfare, and the placement of the bag would not hinder access to property or for services such as refuse collection. A named contact would still be required for the bag.
- 2.3.5 Large Community Grit Bins have been located throughout the city these are specifically located to allow rapid replenishment from small lorries during storm conditions. The locations are listed in Appendix (D,a)

3. <u>Treatments of Conditions</u>

3.1 <u>Precautionary Salting - Priority 1 routes and locations of particular hazard.</u>

Precautionary treatments should be carried out to as per Appendix (D,b) Column C. This table is based on guidance issued by the Society of Chief Officers of Transportation in Scotland (SCOTS) Winter Service Subgroup.

Column C is appropriate when the Salt Cover is Poor, Traffic Levels are Low/Medium and the Salt Loss due to traffic is Normal.

Precautionary Treatment for Hoar Frost and Ice.

3.1.1 If the road temperature is at or above -2C and the road is damp, salt at a rate of 10g per square metre. If the temperature falls between -2C and -5C and the road is damp, salt at 15/20g per square metre. If the road is damp and the temperature is below -5C, salt at 20g per square metre, monitor conditions and retreat if required.

If the road temperature is at or above -2C and the road is wet, salt at a rate of 15g per square metre. If the temperature falls between -2C and -5C and the road is wet, salt at 15/20g per square metre. If the Road is wet and the temperature is below -5C, salt at 20g per square metre, monitor conditions and retreat if required.

When rain is forecast prior to frost/ice, treatment should be timed to commence at the cessation of rainfall subject to being completed within the council's hours of coverage.

3.2 **Precautionary Treatment for Snow.**

- 3.2.2 When continuous snow/freezing rain is forecast precautionary salting rates are to be 20 g/sq. m according to the anticipated severity of the snowfall as per Appendix (D,c)
- 3.2.3 The maximum salt spreading rate recommended for melting up to 50mm of fresh snow is 40 g/sq.m. Repeated applications of salt can remove heavy accumulations of snow, however, this approach is not recommended and ploughing should be undertaken as the depth of snow starts to exceeds 10mm. 20g per square metre of salt should be applied in advance of a snowfall to allow the formation of a debonding layer and assist subsequent ploughing. Where more than 50mm of snow has accumulated, compaction by traffic is likely to become problematic.
- 3.2.4 These spread rates are dependent on available salt stocks, during periods of sustained snow salt availability may be restricted due to availability or instructions from outwith the council, and periods of salt conservation may be necessary as per section 7.0)

3.3 <u>Treatment for Ice and Compacted Snow Conditions</u>

When ice or compacted snow has already formed the surface should be treated as be the guidance in Appendix (D,d).

3.3.1 When temperatures drop below -5 degrees Celsius grit or salt/grit mixtures may be used. The grit used in these circumstances should be single particle size 6mm – 2mm having low fine content. The particles should be angular suitable for an abrasive. **Grit shall only be used when absolutely necessary** due to additional problems arising, such as sweeping and gully emptying and the subsequent additional costs for waste disposal.

3.4 Updated guidelines on salt spread rates

3.4.1 The Society of Chief Officers of Transportation in Scotland (SCOTS) have produced recommendations on the most appropriate and practical approach to implementing salt spread rates. Following consultation with the National Winter Service Research Group (NWSRG), concerning the implementation of Well Managed Highways, the SCOTS Winter Subgroup have suggested a number of developments and those relevant to salt spread rates.

Minimum spread rates of unmodified salt are suggested in Appendix (D,b) treatment matrix for different operational scenarios out-with resilience situations.

Detailed below is the justification provided by the SCOTS Winter Service Subgroup for advising these variations and this is supported by Aberdeen City Council officers.

- Review conclusions based on significant experience of delivering winter service by Scottish local Authorities.
- Review conclusions based on developed best practice within Scottish local Authorities.
- Recognition that going forward that these variations to Well Managed Highways and the successor document, need to be monitored in relation to the development of equipment, research undertaken and revisions to recommended salt spread rates.
- These variations to salt spread rates need to be kept under review by the SCOTS Roads Group/SCOTS Winter Service Subgroup to continue to inform the most appropriate approach to Winter Service to be taken by Scottish Roads Authorities.
- The treatment matrix developed through the SCOTS Winter Sub group is being adopted by Aberdeen City Council and is detailed in Appendix (D,b) along with associated notes.

4. Winter Service Plant

To be effective, salt must be spread evenly at rates to suit prevailing conditions. The spreading equipment supplied should be to BS 1622:1989. The controls of spreading machines are to be calibrated annually and clearly marked for distinct spread rates up to 40g/sq.m.

5. Salt and Grit

- 5.1.1 Salt supplied to various locations throughout the City shall be to BS 3247.
- 5.1.2 Grit for use either neat or in mixtures shall be single sized abrasive or particle size 6mm 2mm having a low fine content. The particles should be angular in shape suitable for an abrasive.
- 5.1.3 Chemical de-icing treatment may to be used at selected locations including the city centre and cycleways.
- 5.1.4 Salt is purchased to restock the storage areas to their maximum stock levels in advance of the season, salt stocks are closely monitored, and restocking orders placed to maintain suitable levels.
- 5.1.5 Salt at storage areas are currently stored uncovered.
- 5.1.6 A guide to appropriate maximum and minimum and resilience stock levels are included in Appendix (D,e).
- 5.1.7 Salt stocks are monitored weekly by Transport Scotland for all 32 Local Authorities, and have an emergency stock for any authority running short during severe winter conditions.

6. Communications

6.1.1 Work has been carried out with the Corporate Communications Team and the Service Design and Development team to provide up to date information on the Council Web Site and social media channels. The information provided will enable members of the public to check on expected road conditions, confirm main gritting routes and check action currently underway. There is also a section to check the weather and road conditions.

7. Resilience

- 7.1.1 If salt stock levels fall close to the resilience stock levels indicated in Appendix (D,e) the Roads Operations Manager will consider and implement the actions required to maintain traffic flow along the strategic network.
- 7.1.2 In extreme circumstances including but not limited to national salt shortages, pandemic circumstances, fuel shortages, that may have a major adverse impact on the provision of the winter service the Roads Operations Manager after consultation with the Roads Infrastructure Manager may implement the actions required to maintain traffic flow along the strategic network these may include but are not restricted to:
 - Reduce salt spread rates.
 - Restrict salt spreading to the Priority 1 Gold or Gold/Silver routes.
 - Move to using salt/grit mixes.
 - Move to using grit only on Secondary routes

- Grit only to be used on hard packed snow on priority/secondary/cul de sac routes
- Replenish Grit Bins with grit only
- Move to using grit only on priority and secondary footway routes
- Restrict treatment to the resilience network consisting of Priority 1 Gold or Gold/ Silver routes and city centre footways.
- Restrict the level of service to the capacity of the available resources.
- Dedicate further available resources to the service delivery.
- 7.1.3 The resilience network consists of the Priority 1 Gold and Silver routes and the City Centre footways. The normal Minimum Winter Network being treated would be the resilience networks. In extreme circumstances when resources are not available to treat this network either as a result of illness or due to restrictions applied by the Scottish or UK governments the minimum network being treated could be reduced to the Priority 1 Gold network.
- 7.1.4 The trigger points for considering activation of the Minimum Winter Network treatment is any one of the following

Salt Levels

All depots	Non-Winter stock	Non-Core Winter Period	Core Winter Period
Tonnes	N/A	2690	4485

ABERDEEN CITY COUNCIL OPERATIONS & PROTECTIVE SERVICES ROADS OPERATIONS

WINTER SERVICE PLAN
2023-2024

PART 2 - OPERATIONAL PLAN

WINTER SERVICE DOCUMENT

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WINTER SERVICE PLAN - STANDING ORDERS

PART 2 - OPERATIONAL PLAN

1. Introduction

1.1 Outline

The Operational Plan is designed to provide for a twenty-four hour a day, seven days a week service. The plan, which is designed to be flexible enough to cover all foreseeable weather conditions normally experienced in this part of the country, will operate in various phases according to the time of day and weather conditions.

The plan consists of an emergency standby service out with normal working hours, regular routine patrols by specialist gritting and snow clearing vehicles in the early hours of the morning augmented, as necessary, by the use of the Council's normal heavy goods vehicles fitted with demountable snowploughs and/or gritter bodies as appropriate. The Council's own resources can be augmented by hired labour and vehicles and plant from local contractors.

1.2 Stages of the Plan

In deploying the Council's resources and resources from other Services, Supervisors will take into account the priorities drawn up to cover all weather conditions, will seek to ensure that the road network is dealt with in the sequence and to the standards set out in Part 1, Section 2 headed "Priorities and Standards".

Supervisors in planning and executing the Winter Service Operations must give consideration to the needs of all employees to have reasonable periods of rest between periods of duty, however, in extreme and prolonged weather conditions Aberdeen City Council can declare the event an emergency to continue with winter service operations.

1.3 <u>Delegation of Responsibilities</u>

- 1.3.1 The Roads Infrastructure Manager is responsible for the work of the Roads Services throughout the City. The Roads Infrastructure Manager is responsible for formulating the policy objectives with regard to Winter Service operations and ensuring that adequate resources are allocated to meet the objectives and standards set in the Specification Document. The Roads Infrastructure Manager is also responsible for ensuring that the Specification and Operational Plan are continually reviewed in the light of experience and changing circumstances.
- 1.3.2 The Roads Infrastructure Manager in conjunction with the Road Operations Manager will be wholly responsible for ensuring that Winter Service operations are carried out in accordance with the policy of the Council and in accordance with accreditation in Winter Maintenance Quality Assurance under ISO 9001. They will ensure that the Duty Officers and the Supervisors and operators are conversant with the Winter Service Plan and will ensure that the standard of training, etc. of the operatives is sufficiently high to enable them to carry out their allotted tasks. The day to day responsibility for producing the daily Winter Maintenance Advice Sheet may be delegated to the Duty Officer. The

Supervisors shall be provided with the physical resources to enable them to carry out the work within the limitations of the budget and shall have the authority to utilise all the resources available to them on normal works in the event of adverse weather conditions. The day to day responsibility for the organisation and supervision of Winter Service operations may be delegated to the Supervisors.

1.3.3 The Supervisors are wholly responsible to the Roads Infrastructure Manager/Road Operations Manager for the day to day organisation and execution of the Winter Service operations and will take immediate action to implement the Winter Service Plan on receipt of adverse weather advice or in the event of sudden frost or snowfall. The Supervisors have complete authority to set the plan in action without reference to the Roads Infrastructure Manager or Road Operations Manager but shall at all times keep the Management fully advised of the prevailing circumstances with regard to the progress of Winter Service operations and shall seek the advice and assistance of Management in dealing with any augmented work undertaken or conditions outwith the scope of the Winter Service Plan.

2. Working Arrangements

2.1 Operating period

The winter operating period will run from October to April each year.

The core period for continual monitoring will run from early November until Late March. Additional support staff and assistance from other services will run from mid-November until late March, the exact dates will be as detailed below, these dates are subject to change depending on the forecast weather conditions.

2.2 Standby Service - 30/10/2023 to 31/03/2024

A weekly duty rota for drivers and plant operators for both the standby service and for the early morning patrols will be prepared to ensure that all specialist Winter Service vehicles can be manned on a twenty-four hour, seven days a week basis in accordance with the Winter Service Plan.

Specialist Winter Service vehicles will be stationed at appropriate depots for immediate use outwith normal working hours. The vehicles will be loaded with neat salt and drivers will be contactable to receive instructions from the Supervisor. A Supervisor will be available to receive telephone calls from the Police or other responsible Officers of the Council, assess road conditions and initiate emergency actions.

On receipt of an emergency call, the Supervisor will assess the situation and, if necessary, will call out the standby crews to treat roads as required, he may at his discretion, alert other Supervisors, as it may be necessary to call out additional drivers and vehicles.

The Supervisors will advise the Lead Response Operative or the Duty Officer what resources are deployed and the route/areas being treated to allow the Council's web site to be updated.

The standby drivers will report to the Supervisor the road conditions at the area of the particular hazard and in the area generally. The Supervisor will log the telephone call seeking assistance together with the details of any action taken in response to it and any action by way of treating other locations so that there is a permanent record, for inspection, of the extent of Winter Service operations carried out.

2.3 <u>Early Morning Patrols – 13/11/2023 to 17/03/2024</u>

The specialist Winter Service vehicles will be operated on early morning patrol service during the winter period. Each vehicle will be driven on a prescribed priority route and treatment will be carried out as instructed for the conditions encountered.

The Supervisor will advise the Lead Response Operative or the Duty Officer what resources are deployed, and the route/areas being treated to allow the Council's web site to be updated.

Special attention will be given to those locations, which are designated as areas of particular hazard; drivers will report the road conditions on their prescribed route to the Supervisor/Lead Response Operative both during and on completion of their patrols.

Additionally, the Supervisors may at their discretion, if adverse weather conditions are expected, detail additional operatives to make themselves available for standby duties/early action.

2.4 Service Within Working Hours

2.4.1 If road or weather conditions warrant it, Winter Service operations utilising the specialist vehicles will continue during the course of the working day. In addition to the specialist vehicles, the Supervisors can instruct the use of the Councils normal heavy goods vehicles on Winter Service operations. The vehicles will be fitted with snowploughs and/or gritter bodies according to the road conditions.

The Supervisors will advise the Lead Response Operative or the Duty Officer what resources are deployed, and the route/areas being treated to allow the Council's web site to be updated.

2.4.2 Daytime 07:45 a.m. - 15:45 p.m. Monday - Friday

The ice detection equipment will be monitored by the Road Services staff. When a change in conditions is displayed at any of the ice detection locations in his area, the Road Operations Manager or his staff will advise the Supervisors who, taking account of all factors known to him, will dispatch a gritting vehicle to inspect and treat conditions at the location as necessary and thereafter proceed to such other locations the Supervisors considers may require treatment.

2.5 Service out with Normal Working Hours 13/11/2024 to 17/03/2024

2.5.1 Response will provide an emergency all night service and specialist Winter Service vehicles will be ready for immediate use throughout the winter season.

The vehicles will be loaded with neat salt and drivers will be in attendance at the depot. In addition to the drivers the depot will be manned by a Duty Lead Response Operative who will receive telephone calls from the Met Office, Police or other responsible Officers of the Council initiating emergency action.

The Duty Officer will continue to monitor the ice detection equipment and forecast and will remain the point of contact for Winter Service until after the evening forecast is received (approximately 1830).

On receipt of an emergency call, the Duty Lead Response Operative will dispatch a driver to investigate and, if necessary, treat the road surface. Immediately after the driver has dealt with the specific complaint, he will travel to those locations designated as areas of particular hazard in the vicinity of the locus of the complaint and, if necessary, treat the road surface at these locations. He will report to the Duty Lead Response Operative the road conditions at the areas of particular hazard and in the area generally. The Lead Response Operative will log the telephone call seeking assistance together with the details of any locations so that there is a permanent record for inspection by the Duty Supervisor of the extent of Winter Service operations carried out during the night.

Should it appear to the Duty Lead Response Operative from the number of telephone calls received requesting assistance or from the reports received from drivers that the road conditions are so bad as to require the deployment of more resources than provided by the all night service, he will immediately telephone the Duty Supervisor advising him of the conditions so that the Duty Supervisor may, at his discretion, instruct the call out of additional drivers and vehicles.

- 2.5.2 When an adverse change of conditions is displayed at any of the ice detection locations in the City, the Lead Response Operative will dispatch a loaded gritter to inspect and treat conditions at the location as necessary and thereafter, taking account of all other known factors, proceed to treat as necessary areas of special hazard. The Duty Lead Response Operative will log the change in road temperatures together with his actions and details of any locations actioned so that there is a permanent record for inspection by the Duty Supervisor of the extent of Winter Service operations carried out during the night.
- 2.5.3 Over Christmas and New Year a stand by crew will only be available to treat priority 1 carriageways and footways on the days of the 25 26 December and 31 December 2 January inclusive.

2.6 Footway Treatment

The Priority 1 footways for treatment are listed in Appendix C (e).

The standard practice for treating footways will be to use neat salt although discretion is given to Supervisors to use salt/grit mixtures when weather conditions warrant it, and especially when dealing with ice that has formed as a result of the re-freezing of partially thawed snow as per Appendix D, (d)

In clearing a passage for pedestrians, any cleared snow will be left piled at the edge of the footway until resources are available for its removal. Special attention will be given at pedestrian crossings, road junctions where large number of pedestrians cross, bus stops etc where gaps should be left at these locations to allow pedestrians to cross without having to negotiate the heaped snow.

Special care will also be taken to ensure that street gullies are not blocked by piled snow, as this would prevent water draining away at the onset of a thaw.

2.7 Footway Readiness

Recourses for footway treatment are to be allocated on a three-level readiness basis. The readiness level shall be implemented and recorded following discussions between the duty officer and the Roads Operations/Roads Infrastructure Manager.

Green:

Forecast conditions to be below zero for up to 5 consecutive days.

City centre routes to be check by Supervisor each morning with treatment undertaken if required, no other routes to be treated.

Amber:

Forecast conditions of prolonged freezing extending beyond 5 days, snowfall or extensive ice forecast. Frontline staff to be made available for prolonged treatment, assistance from other departments requested as required. If other departments assistance required, they are to be notified when Amber condition is identified.

Grit bins and Community Bins, checked and filled in advance, Footway plant and equipment checked for readiness in advance, Priority 1 Footways and sheltered housing areas considered for treatment.

Additional back office staff requirement to respond to public enquiries.

Red:

Forecast conditions as Amber but with continued heavy snowfall or extreme ice in forecast resulting in a risk to infrastructure.

Action as per Amber, additionally external and supplementary resources from other departments to be mobilised as available.

Treatment to be extended to area footway treatment beyond Priority 1 routes as resources allow.

Full reporting system to be implemented, availability of resources to respond to repair to infrastructure to assessed. Additional back office staff requirement to respond to public enquiries regarding infrastructure damage after thaw develops.

2.8 Thawing

During the thaw, the first responsibility of the Supervisors will be to ensure, as far as practicable, that road channels and verges are cleared in the area of street gullies and cross grips to allow melted snow to drain away. Only after the channels and cross grips have been cleared should an attempt be made to clear the stockpiled snow.

2.9 Lifting of Snow from Roads etc

In extreme conditions after heavy snow falls it may be necessary to lift snow from streets. Snow cleared from the road will only be uplifted in exceptional circumstances, e.g. where existing piled snow is preventing further snow clearance from the road.

3. Information

3.1 Communications

<u>During Office Hours</u> - Mondays to Fridays inclusive, telephone messages will be received by the contact centre and passed to the duty officer as appropriate.

Out with Office Hours – All out of office calls will be received through the call centre and passed to the lead response officer or Duty officer as appropriate.

3.2 Weather Forecasts

The Council's meteorological advisors will provide information for the duration of the winter period including:-

- a) General Forecasts for the following 36 hours
- b) 2-5-day outlook forecast
- c) Air and road temperatures and a predicted forecast graph

During Office Hours

The Forecast data information is assessed and entered into an advice sheet prepared by the Duty Officer in conjunction with the Duty Supervisor and submitted to the Roads Operations Manager for discussion and a decision made as to the required treatment. Roads Operations Manager to be advised of daily action.

The information will also be passed to the Standby Supervisor by the Duty Officer.

Out with Office Hours and Holidays

It will be the responsibility of the Duty Officer to obtain the weather forecast, review and confirm action. Roads Operations Manager to be advised of daily action.

Emergency Weather Forecasts

The Council's meteorological advisors will inform the Duty Officer from 0800 to 1830 or the Lead Response Operative from 1830 to 0800 to advise on changes in forecast information.

Additional phone numbers should be supplied to the Met Office in case there is difficulty in contacting the Duty Officer or the Lead Response Operative. The Duty Officer or the Lead Response Operative will advise the Duty Supervisor of changes to the weather forecast which may alter the proposed winter treatment.

3.3 Advice Sheets

3.3.1 Winter Maintenance Advice Sheets

Forecast information and the Winter Maintenance Advice Sheet will be used to assist in decision making. In the absence of any indication or information to the contrary the advice recommendation given on the Advice Sheets should be followed.

3.3.2 Interpretation of Advice Sheets

The Advice Sheets recommendations may be deviated from in the event of any of the following situations:

- (a) A clear emergency exists which requires immediate action.
- (b) The Road Operations Manager advises differently.
- (c) The actual weather (e.g. as measured by Ice Outstations) is at variance from the forecast such that action taken would need to be significantly different from that advised, e.g. the stepping up of salting from 10 to 20 g/sq. m or equivalent in mixtures, or if the forecast of snow turns out to be rain then reducing or changing the treatment. Whilst officers may treat at a level above that recommended based on the forecast, they will not treat at a level below the forecast recommendation. In this case the meteorological advisors should be contacted, advised of actual weather conditions and new forecast information requested.

3.3.3 Variation from Advice Sheets

A record will be kept of all variations of action from the advised action on the advice sheet. The reason for such a variation will be noted on the advice sheet for record purposes.

3.3.4 General Note

The Council's meteorological advisers are available 24 hours a day and can be contacted at any time by Supervisors or staff for advice. They are contracted to supply new weather information when a significant change is forecast and to give advice over the telephone on all meteorological matters. If in any doubt about the actual weather and/or the forecast the rule is contact the meteorological advisers.

4. Plant

4.1 Availability and Maintenance of Vehicles, Plant etc

All specialist Winter Service vehicles, plant and footway snowploughs require to be maintained and overhauled prior to the commencement of Winter Service operations. All items of Winter Service equipment overhauled shall be on station not later than the end of September.

All vehicles, plant and equipment shall be checked to ensure they are fully operational on return to station.

A standby mechanic will be available at all times during the winter period.

4.2 **Operation of Vehicles**

While it is acknowledged that the drivers of vehicles engaged in Winter Service operations do not operate under normal circumstances, it is nevertheless the driver's duty to take every precaution to avoid accidents.

Once the vehicles are on station and Winter Service operations have begun, it will be the duty of the driver and/or operator for each vehicle and item of plant to check his vehicle daily before starting duty. The inspection shall cover the fuel, oil and water levels and the lights, brakes and tyres, together with all bolts and couplings fixing ploughs, spinners and safety rails.

Any fault revealed by the check shall be immediately reported to the Supervisor who will call out the stand by mechanic to determine whether or not the vehicle is in a fit state to continue with Winter Service operations or whether the vehicle should be withdrawn from service for immediate repair at the Depot or transported to Kittybrewster.

The amber flashing lights fitted to each vehicle must be kept in operation during gritting and snow clearing operations. In poor visibility, the vehicle's horn should be sounded as necessary, but its use should be kept to a minimum consistent with safe driving and the need to cause as little inconvenience as is possible to residents, particularly during early morning and late night working. A "SPREADING" sign is to be fitted and kept clean on rear of gritting and large snow plough vehicles.

Snow ploughs and scrapers must always be raised above the road surface when passing over sections of road which are clear of snow and ice and drivers should constantly be on the lookout for manhole covers, street tobies or other obstructions such as traffic calming measures which may be standing proud of the road surface.

It is the responsibility of the driver of any vehicle to ensure that the hopper or the platform of this vehicle is not left loaded with salt or salt/sand mixture for more than forty-eight hours. If the salt or salt/sand mixture has not been used for this period of time, the hopper and/or platform should be emptied and immediately refilled with fresh material.

If the vehicle has been driven during heavy rain, the driver should check the salt or salt/sand mixture to ensure that caking has not taken place. If it has, the vehicle should be emptied and immediately refilled with fresh material.

Where mobile phone communication is used the driver must not under any circumstance answer the phone until parked safely and the engine is turned off as per the Council's

mobile phone policy. Drivers will be issued with a two-way radio for communication purposes.

5. Materials and Equipment

5.1 Salt and Salt/Sand Stocks

Salt

Stocks of salt will maximised before the start of the winter period. It will be the responsibility of the Duty Supervisor and Duty Officer to make a daily update on salt usage and a weekly return of salt receipts and issues to the Road Operation Manager.

Salt/Sand mixtures

Although not routinely used, sand will be kept available to be mixed with salt in accordance with the instructions of the Roads Operations Manager and will generally consist of one parts sand to one part salt by weight but this mixture may be varied at the discretion of the Supervisors depending upon road and weather conditions.

5.2 Use of Materials

In general, neat salt will be used on all roads. The use of neat salt or of the salt/sand mixture may be varied at the discretion of the Roads Operations Manager depending upon road and weather conditions.

It shall be the responsibility of the Supervisors to ensure that all salt stores are allocated a loading shovel and that the stores are manned continuously during periods of extreme weather or when general Winter Service operations are being carried out.

During the spreading of salt, especially in built-up areas, care must be taken to keep salt clear of trees, hedges, shrubs, lawns etc.

6. <u>Assistance from Third Parties</u>

6.1 <u>Local Authority Services</u>

Other Local Authority Services may undertake the gritting/salting, and/or snow clearing of footways and/or roads in designated areas, by arrangement agreed prior to the onset of winter.

6.2 Education

Winter Service within the City's educational establishments are dealt with under separate arrangements within the Council

6.3 Parks, Cemetery accesses, Crematoria access, Sheltered Housing accesses, Unadopted Footways through Council Housing Areas and Other Council Property accesses

Winter Service within the above establishments are dealt with under separate arrangements within the Council.

7. Road Closures

7.1 Road Closures

The closure of a road under severe winter conditions can be authorised by the Police or Duty Supervisor. It is absolutely essential that there is consultation and co-operation between the two bodies in the issue of closure signage e.g. for a closure instigated by the Police during the night, the Duty Supervisor should be informed as soon as possible and where the closure initiative came from the Roads Staff the Police should be contacted immediately. Duty Officer will be informed by 08:00 of any road closures and openings. If a road is closed signing should be maintained until the road is reopened. Roads Operations Manager or a duty representative will be required to inform Roadworks Coordination and Communications of any road closures.

8 Road Treatment Logs

A "Road Treatment Log" will be kept by each gritter driver to show the times of treatment and the approximate tonnage of the material used. These sheets are to be completed daily by the gritter drivers and returned to the Supervisors each day.

ABERDEEN CITY COUNCIL

OPERATIONAL PLAN APPENDICES

EMERGENCY CONTACTS
DUTIES OF PERSONNEL
GRITTING ROUTES
STOCK & TREATMENT GUIDANCE.
FLOODING GUIDANCE

OPERATIONAL PLAN APPENDIX A - EMERGENCY CONTACTS

Call Centre Number 03000 200292

OPERATIONAL PLAN APPENDIX B - PERSONNEL 1 - DUTIES OF PERSONNEL

Duties of the Gritter Drivers

1. Duty Period: Monday – Sunday (including Public Holidays)

In addition, when on standby during period of duty, make themselves available for callout by request, during emergency.

Maximum duty period will be 11 hours (10 hours driving unless a declared emergency and driver fit to drive).

2. Location: At Depot detailed by Duty Supervisor

3. Communication Radio

4. Responsible to the Duty Supervisor

5. Responsibilities

- a) To carry out a First Use Vehicle Check.
- b) Drive gritting vehicle along route as detailed on the route card or to verbal instructions of Duty Supervisor/Lead Response Operative, ensuring that carriageways are adequately gritted for the conditions prevailing.
- c) Maintain communication with the Duty Supervisor/Lead Response Operative advising when treatment of a route/area is started and completed.
 - 1) Provide an update of road and footway conditions when requested
 - 2) Advise duty Supervisor/Lead Response Operative when required to deviate from programmed route.
- d) During actual gritting and snow clearing operations, the amber flashing beacon must be used. Speeds in excess of 40mph (64kph) are prohibited.
- e) In the event of a breakdown of his vehicle or any incident, which prevents him carrying out his allocated duty, he will advise the Duty Supervisor/Lead Response Operative by radio and await further instructions.
- f) Complete daily winter maintenance treatment log and other such relevant documentation and pass to the Duty Supervisor/Lead Response Operative by the end of the next working day
- g) To wash down gritter/spinner after use, clean and tidy the cab and top up fuel.

Duties of the Response Drivers

- 1. Duty period: 04:00 to 15:30 & 15:30 to 03:00
- 2. Location: Tullos Depot and work locations detailed by Supervisor
- 3. Communication Radio
- 4. Responsible to the Duty Supervisor
- 5. Responsibilities
 - a) Complete a First Use Vehicle Check before leaving the depot.
 - b) While he may be involved in routine maintenance work, he must be prepared to react immediately to a call-out request which will be initiated by a radio instruction from the Lead Response Operative/Duty Supervisor.
 - c) On receipt of a call-out he will proceed to location and deal with the condition, maintaining communication with the Lead Response Operative/Duty Supervisor advising him when the matter has been dealt with.
 - d) Drive gritting vehicle along route as detailed on satellite navigation system or to verbal instructions of Duty Supervisor, ensuring that carriageways are adequately gritted for the conditions prevailing.
 - e) Relay information back to the Lead Response Operative/Duty Supervisor on any action taken at the locations, the state of the roads and any action taken at any other locations.
 - f) Deal with all requests from the Lead Response Operative/Duty Supervisor until return to Depot when he will again resume his other allocated duties.
 - 1) Provide an update of road and footway conditions when requested.
 - Advise Duty Supervisor/Lead Response Operative when required to deviate from programmed route.
 - g) In the event of a general call-out he will operate in the location advised by the Duty Supervisor/Lead Response Operative.
 - h) In the event of a breakdown of his vehicle or any incident, which prevents him, carrying out this allotted duty, he will advise the Lead Response Operative/Duty Supervisor by radio and await further instructions.
 - Complete daily winter maintenance treatment log and other such relevant documentation and pass to the Duty Supervisor/Lead Response Operative at the end of the shift.
 - j) To wash down gritter/spinner after use and clean and tidy the cab and top up of fluids also required.

<u>Duties of the Duty Supervisor/Standby Supervisor</u>

1. Duty Period: Duty Supervisor 04:45 – 15:45

Standby Supervisor 15:45 – 04:45

2. Location: West Tullos Depot

3. <u>Communication</u>

The Supervisor will be equipped with a mobile phone and a radio for communication.

4. Responsible to the Roads Operations Manager.

5. Responsibilities

Overall responsibility for the day to day operations of the Winter Service function.

- On receipt of Winter Maintenance Advice Sheet, initiate appropriate action, utilising Lead Response Operative as necessary, including advising drivers on spread rates to be applied.
- b) Ensure that gritters, lorries, plant and ancillary equipment are maintained in operational condition and located at the appropriate Depots and that adequate supplies of salt and sand are available.
- c) Ensure that drivers and operators are conversant with operational details.
- d) In the event of severe conditions, which exhaust the capacity of his resources, advise the Road Operations Manager of the short fall in resources.
- e) To react to outside agency's requests and advise them, as necessary, when adverse conditions require their action and render support in plant and labour resources as necessary. Discuss with Roads Operations Manager or Duty Officer where this compromises treatment in the road network.
- f) In the event of the breakdown of a vehicle, report defect to the appropriate workshop.
- g) Complete a daily log of vehicles and plant breakdowns.
- h) To ensure all call-out requests are logged in Log Book indicating time received and time incident delt with.
- i) Ensure that drivers logs are maintained, and to ensure that the treatment and spread rates comply with his instruction on a daily or weekly basis.

- j) To advise the Road Operations Manager or the Duty Officer each day not later than 07:00 on the road conditions prevailing and the action taken and to compile a morning stat report each day no later than 07:00 (08:00 on Sundays and public holidays).
- k) If continuing action maintain and complete Continuing Action Form
- During all operations the Supervisor must keep either the Lead Response Operative or the Duty Officer advised when action is taken on each route/area and also when action ceases. Total resources deployed on each route/area must also be communicated. It is vital that this information is accurate and given timeously in order that the Council's website reflects exactly the action being undertaken on the ground.

Duties of the Duty Officer

- 1. Duty Period: 1 week commencing with issue of midday forecast on Monday morning to completion of morning treatment the following Monday midday
- 2. Location: Duty Officer's Office or Residence as necessary.

3. Communication

The Duty Officer will be equipped with a mobile phone and radio for communication.

4. Responsible to the Road Operations Manager.

5. Responsibilities

Responsibility for interpreting the daily forecast to produce the daily Winter Maintenance Advice Sheet and ensuring that relevant parties are informed of the proposed action.

- a) On receipt of weather forecast, and telephone contact with Met Office if necessary, decide on appropriate winter treatment and spread rates for the coming afternoon, night shift and following morning. Check updated forecast at 18:00 and amend action plan as necessary with stand by Supervisor.
- b) Complete Winter Maintenance Advice Sheet and issue to Duty Supervisor. Duty Supervisor to be contacted by telephone/radio if not available in West Tullos Depot.
- c) Issue Winter Maintenance Advice Sheet to Lead Response Operative.
- d) As necessary issue Winter Maintenance Advice Sheet to appropriate parties.
- e) Update Weather Conditions on Council Website on a daily basis.
- Update Council Website at the start of each treatment and on completion of each treatment.
- g) Complete the Winter Maintenance Advice Sheet after the following morning's treatment, detailing any change from the proposed action and recording actual temperatures and conditions from the previous 24 hours.
- h) Advise Roads Operations Manager of salt tonnage used on a daily basis.
- i) Consult Roads Operations Manager concerning current salt stock levels and the impact this may have on limiting proposed winter action.

<u>Duties of the Lead Response Operative</u>

1. Duty period: 8:30 pm to 8.00am

2. Location: West Tullos Depot

3. Communication Telephone and radio

4. Responsible to Duty Supervisor/Stand-by Supervisor

Responsibilities

- a) To accept by telephone, all call-out requests from Police Scotland
- b) To log all calls in Log Book indicating time received, time incident dealt with and by which vehicle.
- c) To dispatch drivers, who are in attendance to the requested locations.
- d) In the event of demand significantly exceeding capability, telephone Standby/Duty Supervisor who will assume control and instruct as necessary.
- e) In the event of a report that a vehicle is out of commission,
 - 1) he will use alternative standby vehicle or driver if available
 - 2) if not available, advise Stand-by/Duty Supervisor who will assume responsibility.
- f) Ensure that he receives information and immediately updates the Council's website to reflect the current position on the ground
- g) Monitor weather forecast and graphs and recording actions taken
- h) From 06:30 compile morning status report by 07:00 and distribute to Roads Operations Manager, Duty Supervisor and Duty Officer.

<u>Duties of the Road Operations Manager</u>

1. Duty period: Flexible.

2. Location: Office/Residence.

3. Communication: Telephone and radio

4. Responsible to Roads Infrastructure Manager.

5. Responsibilities

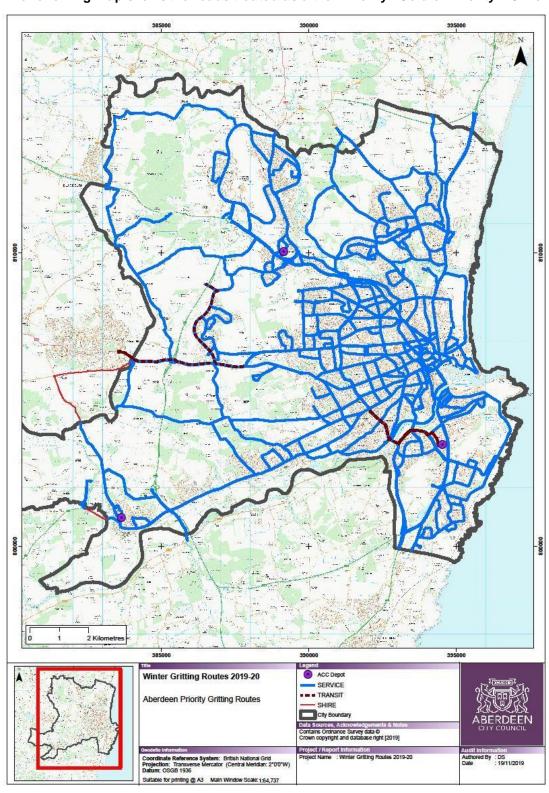
- a) Wholly responsible for ensuring that the Supervisors and Operatives are conversant with Winter Maintenance Operations and shall provide the Supervisors with the physical resources to enable them to carry out the objectives and meet the standard set.
- b) Shall have the authority to utilise all the resources of his area, however, deployed on normal works, in the event of extreme conditions.
- c) During working hours, responsible for ensuring the Supervisors are advised of weather forecasts.
- d) Ensuring that stocks of sand and salt are maintained at a sufficient level during the operation period.
- e) Responsible for checking that all Winter Service equipment is overhauled and on station by the end of September each year and reporting omissions, if any.
- f) Responsible for preparing a duty rota for Supervisor and Operatives to ensure that adequate supervision for day to day operations is provided.
- g) Ensure compliance with the Specification Document.

In Roads Operations Manager absence, this role will be taken over by the Team Leader – Operations.

OPERATIONAL PLAN APPENDIX C - GRITTING ROUTES

Priority Routes

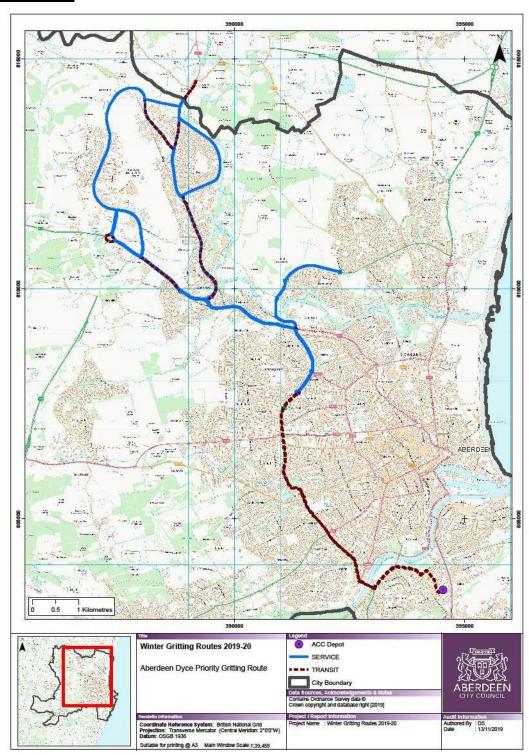
The following map shows the roads treated as either Priority1 Gold or Priority 1 Silver.



(a) Priority 1 Gold Routes

The following routes (Gold 1-4) are to be treated 24 hours 7 days during the winter.

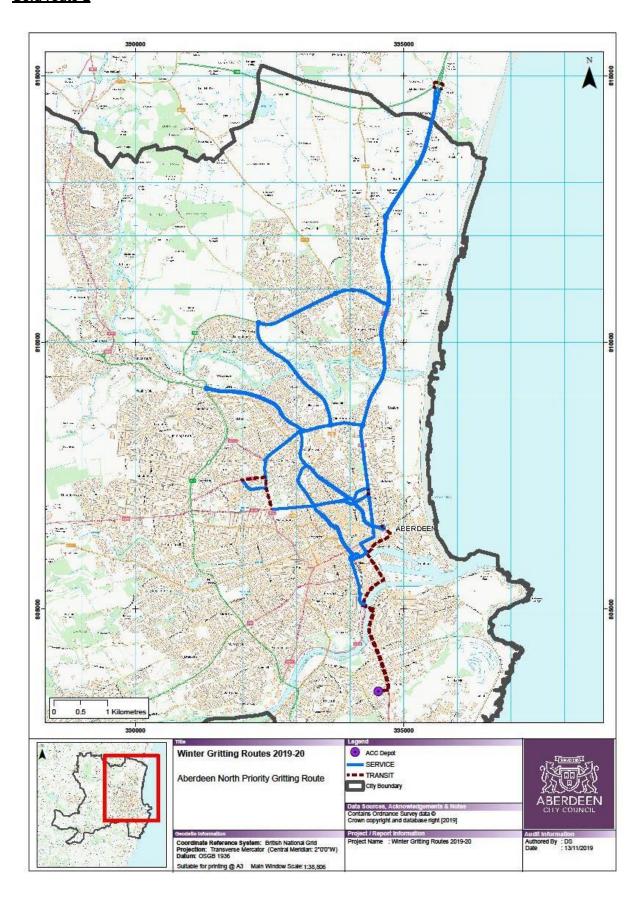
Bold Text - Treat Italic - Run Traffic Calming



GOLD ROUTE 1		
STREET	то	DIRECTION
WEST TULLOS ROAD DEPOT	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	ABBOTSWELL ROAD	LEFT
ABBOTSWELL ROAD	ABBOTSWELL ROUNDABOUT	RIGHT - 2ND EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	STRAIGHT - 2ND EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	BRIDGE OF DEE ROUNDABOUT	RIGHT - 3RD EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	GARTHDEE ROUNDABOUT	STRAIGHT - 2ND EXIT
GARTHDEE ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	ANDERSON DRIVE	FOLLOW ON TO
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT - 2ND EXIT
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	KEPPLESTONE ROUNDABOUT	STRAIGHT - 2ND EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	KINGSGATE ROUNDABOUT	STRAIGHT - 2ND EXIT
KINGSGATE ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	"MURDO'S ROUNDABOUT"	COMPLETE - 2ND EXIT
"MURDO'S ROUNDABOUT"	NORTH ANDERSON DRIVE	COMPLETE - 2ND EXIT
NORTH ANDERSON DRIVE	ROSEHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
ROSEHILL ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	HAUDAGAIN ROUNDABOUT	STRAIGHT - 2ND EXIT
HAUDAGAIN ROUNDABOUT	MUGIEMOSS ROAD	
MUGIEMOSS ROAD	MUGIEMOSS ROUNDABOUT	RIGHT - 2ND EXIT
MUGIEMOSS ROUNDABOUT	PARKWAY	
PARKWAY	"TESCO" ROUNDABOUT	STRAIGHT - 2ND EXIT
"TESCO" ROUNDABOUT	PARKWAY	
PARKWAY	DANESTONE ROUNDABOUT	COMPLETE - 4TH EXIT
DANESTONE ROUNDABOUT	PARKWAY	
PARKWAY	"TESCO" ROUNDABOUT	STRAIGHT - 2ND EXIT
"TESCO" ROUNDABOUT	PARKWAY	
PARKWAY	MUGIEMOSS ROUNDABOUT	LEFT - 1ST EXIT

MUGIEMOSS ROUNDABOUT	MUGIEMOSS ROAD	
MUGIEMOSS ROAD	HAUDAGAIN ROUNDABOUT	RIGHT - 3RD EXIT
		- RIGHT - SKD EXIT
HAUDAGAIN ROUNDABOUT	AUCHMILL ROAD	5011011101170
AUCHMILL ROAD	INVERURIE ROAD	FOLLOW ON TO
INVERURIE ROAD	BUCKSBURN ROUNDABOUT	KEEP LEFT SLIP
BUCKSBURN ROUNDABOUT	INVERURIE ROAD	
INVERURIE ROAD	SCLATTIE ROUNDABOUT	ROUND - 4TH EXIT
SCLATTIE ROUNDABOUT	INVERURIE ROAD	ROUND - 4TH EXIT
INVERURIE ROAD	BUCKSBURN ROUNDABOUT	LEFT - 1ST EXIT
BUCKSBURN ROUNDABOUT	NEW STONEYWOOD ROAD	
NEW STONEYWOOD ROAD	STONEYWOOD ROAD	FOLLOW ON TO
STONEYWOOD ROAD	"BP" ROUNDABOUT	LEFT - 1ST EXIT
"BP" ROUNDABOUT	VICTORIA STREET	
VICTORIA STREET	"KWIKFIT" ROUNDABOUT	LEFT - 1ST EXIT
"KWIKFIT" ROUNDABOUT	OLD MELDRUM ROAD	
OLD MELDRUM ROAD	DYCE DRIVE	LEFT
DYCE DRIVE	PITMEDDEN ROAD	LEFT
PITMEDDEN ROAD	VICTORIA STREET	LEFT
VICTORIA STREET	"KWIKFIT" ROUNDABOUT	LEFT - 1ST EXIT
"KWIKFIT" ROUNDABOUT	OLD MELDRUM ROAD	
OLD MELDRUM ROAD	OLD MELDRUM ROAD	FOLLOW ON TO
OLD MELDRUM ROAD	OLD MELDRUM ROAD	TURN AT LIGHTS
OLD MELDRUM ROAD	"KWIKFIT" ROUNDABOUT	LEFT - 1ST EXIT
"KWIKFIT" ROUNDABOUT	RIVERVIEW DRIVE	
RIVERVIEW DRIVE	"BP" ROUNDABOUT	LEFT - 1ST EXIT
"BP" ROUNDABOUT	STONEYWOOD ROAD	
STONEYWOOD ROAD	NEW STONEYWOOD ROAD	FOLLOW ON TO
NEW STONEYWOOD ROAD	BUCKSBURN ROUNDABOUT	ROUND - 2ND EXIT
BUCKSBURN ROUNDABOUT	INVERURIE ROAD	_
INVERURIE ROAD	SCLATTIE ROUNDABOUT	STRAIGHT - 2ND EXIT
SCLATTIE ROUNDABOUT	INVERURIE ROAD	STRAIGHT - 2ND EXIT
INVERURIE ROAD	AIRPORT ROUNDABOUT	ROUND - 4TH EXIT
AIRPORT ROUNDABOUT	INVERURIE ROAD	ROUND - 4TH EXIT
INVERURIE ROAD	DYCE DRIVE	LEFT
DYCE DRIVE	AGYLL ROAD	LEFT
AGYLL ROAD	AIRPORT ROUNDABOUT	ROUND - 4TH EXIT
AIRPORT ROUNDABOUT	AGYLL ROAD	

AGYLL ROAD	DYCE DRIVE	RIGHT
DYCE DRIVE	INVERURIE ROAD	LEFT
INVERURIE ROAD	SCLATTIE ROUNDABOUT	ROUND - 4TH EXIT
SCLATTIE ROUNDABOUT	INVERURIE ROAD	
INVERURIE ROAD	DYCE DRIVE	RIGHT
DYCE DRIVE	PITMEDDEN ROAD	FOLLOW ON TO
PITMEDDEN ROAD	VICTORIA STREET	RIGHT
VICTORIA STREET	"BP" ROUNDABOUT	STRAIGHT - 2ND EXIT
"BP" ROUNDABOUT	STONEYWOOD ROAD	1
STONEYWOOD ROAD	NEW STONEYWOOD ROAD	FOLLOW ON TO
NEW STONEYWOOD ROAD	BUCKSBURN ROUNDABOUT	LEFT - 1ST EXIT
BUCKSBURN ROUNDABOUT	INVERURIE ROAD	1
INVERURIE ROAD	AUCHMILL ROAD	LEFT - 1ST EXIT
AUCHMILL ROAD	GREAT NORTHERN ROAD	FOLLOW ON TO
GREAT NORTHERN ROAD	HAUDAGAIN ROUNDABOUT	RIGHT - 3RD EXIT
HAUDAGAIN ROUNDABOUT	NORTH ANDERSON DRIVE	RIGHT - 3RD EXIT
NORTH ANDERSON DRIVE	ROSEHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
ROSEHILL ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	"MURDO'S ROUNDABOUT"	STRAIGHT - 3RD EXIT
"MURDO'S ROUNDABOUT"	NORTH ANDERSON DRIVE	STRAIGHT - 3RD EXIT
NORTH ANDERSON DRIVE	KINGS CROSS ROUNDABOUT	STRAIGHT - 2ND EXIT
KINGS CROSS ROUNDABOUT	ANDERSON DRIVE	STRAIGHT - 2ND EXIT
ANDERSON DRIVE	KEPPLESTONE ROUNDABOUT	STRAIGHT - 2ND EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT - 2ND EXIT
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SOUTH ANDERSON DRIVE	FOLLOW ON TO
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	GARTHDEE ROUNDABOUT	STRAIGHT - 2ND EXIT
GARTHDEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	GREAT SOUTHERN ROAD	LEFT - 1ST EXIT
GREAT SOUTHERN ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	STRAIGHT - 2ND EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROAD	LEFT - 1ST EXIT
ABBOTSWELL ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WEST TULLOS ROADS DEPOT	LEFT

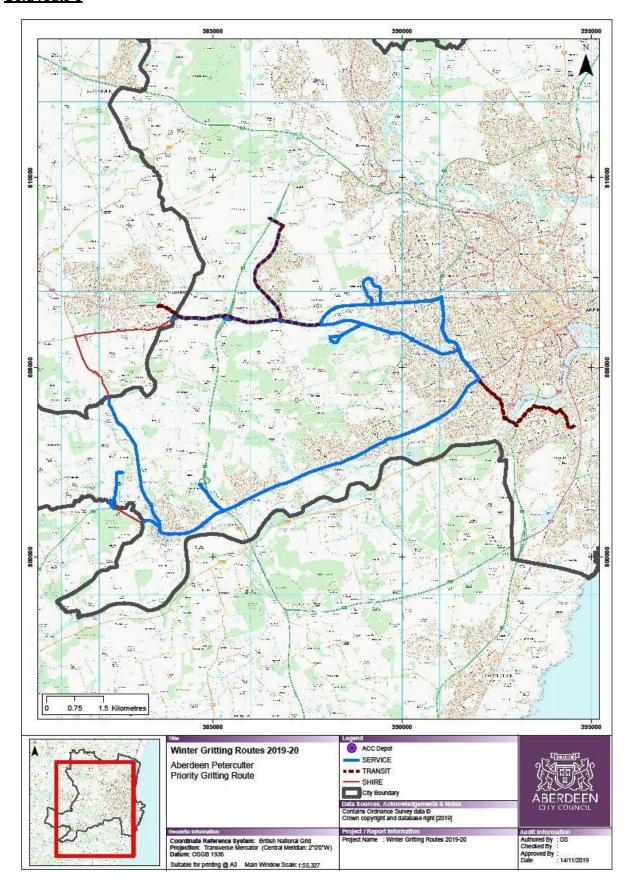


GOLD ROUTE 2		
STREET	то	DIRECTION
WEST TULLOS DEPOT	CRAIGSHAW DRIVE	LEFT
CRAIGSHAW DRIVE	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	QUEEN ELIZABETH BRIDGE	LEFT - 1ST EXIT
QUEEN ELIZABETH BRIDGE	NORTH ESPLANADE WEST	RIGHT - 3RD EXIT
NORTH ESPLANADE WEST	MARKET STREET	LEFT
MARKET STREET	MARKET STREET	FOLLOW ON TO
MARKET STREET	UNION STREET	RIGHT
UNION STREET	CASTLE STREET	FOLLOW ON TO
CASTLE STREET	KING STREET	LEFT
KING STREET	ELLON ROAD	FOLLOW ON TO
ELLON ROAD	ELLON ROAD	CITY LIMIT
ELLON ROAD	ELLON ROAD	LEFT - OFF SLIP ROAD
ELLON ROAD	ELLON ROAD	ROUND - 5TH EXIT
ELLON ROAD	ELLON ROAD	ON SLIP ROAD
ELLON ROAD	MURCAR ROUNDBOUT	STRAIGHT ON - 2ND EXIT
MURCAR ROUNDABOUT	ELLON ROAD	
ELLON ROAD	AECC ROUNDABOUT	RIGHT - 3RD EXIT
AECC ROUNDABOUT	PARKWAY	
PARKWAY	SCOTSTOWN ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SCOTSTOWN ROUNDABOUT	PARKWAY	
PARKWAY	DANESTONE ROUNDABOUT	ROUND - 4TH EXIT
STREET	то	DIRECTION
DANESTONE ROUNDABOUT	PARKWAY	ROUND - 4TH EXIT
PARKWAY	SCOTSTOWN ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SCOTSTOWN ROUNDABOUT	PARKWAY	STRAIGHT ON - 2ND EXIT
PARKWAY	AECC ROUNDABOUT	RIGHT - 3RD EXIT
AECC ROUNDABOUT	KING STREET	
KING STREET	EAST NORTH STREET	LEFT
EAST NORTH STREET	BEACH BOULEVARD ROUNDABOUT	STRAIGHT ON - 3RD EXIT
BEACH BOULEVARD ROUNDABOUT	COMMERCE STREET	
COMMERCE STREET	VIRGINIA STREET	RIGHT
VIRGINIA STREET	GUILD STREET	FOLLOW ON TO
GUILD STREET	BRIDGE STREET	RIGHT

BRIDGE STREET	WAPPING STREET	RIGHT
WAPPING STREET	DENBURN ROAD	LEFT
DENBURN ROAD	WOOLMANHILL ROUNDABOUT	STRAIGHT ON - 2ND EXIT
WOOLMANHILL ROUNDABOUT	GILCOMSTON STEPS	
GILCOMSTON STEPS	SKENE SQUARE	FOLLOW ON TO
SKENE SQUARE	ROSEMOUNT ROUNDABOUT	STRAIGHT ON - 2ND EXIT
ROSEMOUNT ROUNDABOUT	SKENE SQUARE	
SKENE SQUARE	CAROLINE PLACE	FOLLOW ON TO
CAROLINE PLACE	BERRYDEN ROAD	STRAIGHT ON
BERRYDEN ROAD	BERRYDEN ROOUNDABOUT	STRAIGHT ON - 2ND EXIT
BERRYDEN ROOUNDABOUT	BERRYDEN ROAD	
BERRYDEN ROAD	BELMONT ROAD	FOLLOW ON TO
BELMONT ROAD	POWIS TERRACE	RIGHT
POWIS TERRACE	POWIS PLACE	KEEP LEFT
POWIS PLACE	CAUSEWAYEND	FOLLOW ON TO
CAUSEWAYEND	MOUNTHOOLY ROUNDABOUT	STRAIGHT ON - 2ND EXIT
MOUNTHOOLY ROUNDABOUT	NELSON STREET	STRAIGHT ON - 2ND EXIT THEN 1ST LEFT
NELSON STREET	KING STREET	LEFT
KING STREET	MOUNTHOOLY WAY	LEFT
MOUNTHOOLY WAY	MOUNTHOOLY ROUNDABOUT	FOLLOW ON TO
MOUNTHOOLY ROUNDABOUT	WEST NORTH STREET	LEFT - 1ST EXIT
WEST NORTH STREET	EAST NORTH STRREET	STRAIGHT ON
EAST NORTH STRREET	JUSTICE PORT ROUNDABOUT	ROUND - 5TH EXIT
JUSTICE PORT ROUNDABOUT	EAST NORTH STRREET	
EAST NORTH STRREET	WEST NORTH STREET	STRAIGHT ON
WEST NORTH STREET	MOUNTHOOLY ROUNDABOUT	STRAIGHT ON - 3RD EXIT
MOUNTHOOLY ROUNDABOUT	CAUSEWAYEND	STRAIGHT ON - 3RD EXIT
CAUSEWAYEND	POWIS PLACE	FOLLOW ON TO
POWIS PLACE	POWIS TERRACE	STRAIGHT ON
POWIS TERRACE	GREAT NORTHERN ROAD	FOLLOW ON TO
GREAT NORTHERN ROAD	ST MACHAR ROUNDABOUT	STRAIGHT ON - 2ND EXIT
ST MACHAR ROUNDABOUT	GREAT NORTHERN ROAD	
GREAT NORTHERN ROAD	HAUDAGAIN ROUNDABOUT	ROUND - 4TH EXIT
HAUDAGAIN ROUNDABOUT	GREAT NORTHERN ROAD	
GREAT NORTHERN ROAD	ST MACHAR ROUNDABOUT	LEFT - 2ND EXIT
ST MACHAR ROUNDABOUT	ST MACHAR DRIVE	

FOLLOW ON TO FOLLOW ON TO FOLLOW ON TO ROUND - 4TH EXIT FOLLOW ON TO JE FOLLOW ON TO LEFT OUT ROUND - 4TH EXIT ROUND - 4TH EXIT
DABOUT FOLLOW ON TO ROUND - 4TH EXIT FOLLOW ON TO JE FOLLOW ON TO LEFT DUT ROUND - 4TH EXIT
ROUND - 4TH EXIT AD FOLLOW ON TO JE FOLLOW ON TO LEFT OUT ROUND - 4TH EXIT
FOLLOW ON TO JE FOLLOW ON TO LEFT OUT ROUND - 4TH EXIT
DE FOLLOW ON TO LEFT DUT ROUND - 4TH EXIT
DUT ROUND - 4TH EXIT
DUT ROUND - 4TH EXIT
DABOUT STRAIGHT ON - 2ND EXIT
DABOUT STRAIGHT ON - 2ND EXIT
STRAIGHT ON - 2ND EXIT
STRAIGHT ON
ABOUT STRAIGHT ON - 2ND EXIT
RIGHT
VEST RIGHT
RIGHT
LEFT
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT LEFT
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT LEFT FOLLOW ON TO
STRAIGHT ON JNDABOUT ROUND - 5TH EXIT LEFT FOLLOW ON TO
STRAIGHT ON ROUND - 5TH EXIT LEFT FOLLOW ON TO IDABOUT STRAIGHT ON - 2ND EXIT
Т

DENBURN ROAD	WAPPING STREET	LEFT
STREET	то	DIRECTION
WAPPING STREET	CARMELITE STREET	RIGHT
CARMELITE STREET	GUILD STREET	RIGHT
GUILD STREET	COLLEGE STREET	LEFT
COLLEGE STREET	SOUTH COLLEGE STREET	STRAIGHT ON TO
SOUTH COLLEGE STREET	QUEEN ELIZABETH BRIDGE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
QUEEN ELIZABETH BRIDGE ROUNDABOUT	QUEEN ELIZABETH BRIDGE	
QUEEN ELIZABETH BRIDGE	CRAIGINCHES ROUNDABOUT	STRAIGHT - 3RD EXIT
CRAIGINCHES ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WELLINGTON ROAD	RIGHT - DEPOT

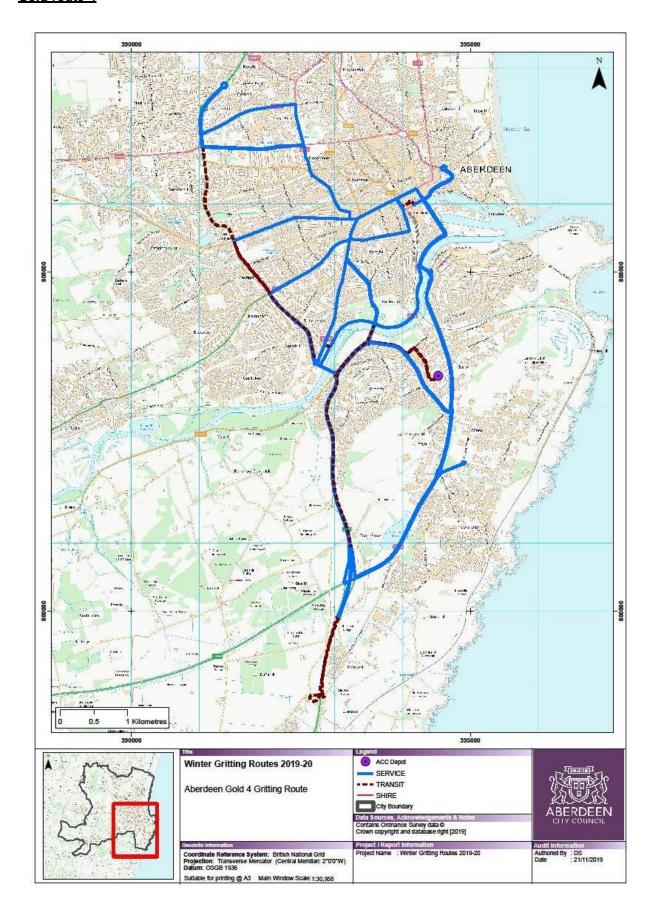


GOLD ROUTE 3		
STREET	ТО	DIRECTION
WEST TULLOS DEPOT	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	ABBOTSWELL ROAD	LEFT
ABBOTSWELL ROAD	ABBOTSWELL ROUNDABOUT	RIGHT - 2ND EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	STRAIGHT - 2ND EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	BRIDGE OF DEE ROUNDABOUT	RIGHT - 3RD EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	GARTHDEE ROUNDABOUT	STRAIGHT - 2ND EXIT
GARTHDEE ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	ANDERSON DRIVE	FOLLOW ON TO
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT - 2ND EXIT
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	KEPPLESTONE ROUNDABOUT	STRAIGHT - 2ND EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	KINGSGATE	STRAIGHT - 2ND EXIT
KINGSGATE	NORTH ANDERSON DRIVE	_
NORTH ANDERSON DRIVE	LANG STRACHT	LEFT
LANG STRACHT	MIDDENCRAIG ROUNDABOUT	ROUND - 3RD EXIT
MIDDENCRAIG ROUNDABOUT	LANG STRACHT	
LANG STRACHT	SKYE ROAD	LEFT
SKYE ROAD	ARRAN AVENUE	LEFT
ARRAN AVENUE	LEWIS ROAD	FOLLOW ON TO
LEWIS ROAD	LANG STRACHT	LEFT
LANG STRACHT	NORTH ANDERSON DRIVE	RIGHT
NORTH ANDERSON DRIVE	KINGS CROSS ROUNDABOUT	STRAIGHT - 2ND EXIT
KINGS CROSS ROUNDABOUT	ANDERSON DRIVE	

ANDERSON DRIVE	KEPPLESTONE ROUNDABOUT	STRAIGHT - 2ND EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT - 2ND EXIT
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	GREAT WESTERN ROAD	RIGHT
GREAT WESTERN ROAD	ST JOHNS TERRACE	FOLLOW ON TO
ST JOHNS TERRACE	NORTH DEESIDE ROAD	FOLLOW ON TO
NORTH DEESIDE ROAD	NORTH DEESIDE ROAD	TO CITY LIMIT
NORTH DEESIDE ROAD	ANGUSTON ROAD	TURN RIGHT
ANGUSTON ROAD	LINN MOOR ROAD	TURN RIGHT
LINN MOOR ROAD	LINN MOOR ROAD	FOLLOW LEFT
LINN MOOR ROAD	LINN MOOR SCHOOL	TURN AROUND
LINN MOOR SCHOOL	LINN MOOR ROAD	TURN LEFT
LINN MOOR ROAD	LINN MOOR ROAD	FOLLOW RIGHT
LINN MOOR ROAD	ANGUSTON ROAD	TURN LEFT
ANGUSTON ROAD	NORTH DEESIDE ROAD	TURN LEFT
NORTH DEESIDE ROAD	NORTH DEESIDE ROAD	TO CITY LIMIT
NORTH DEESIDE ROAD	AWPR	LEFT
AWPR	AWPR	ROUND - 3RD EXIT
AWPR	NORTH DEESIDE ROAD	RIGHT
NORTH DEESIDE ROAD	MALCOLM ROAD	RIGHT
MALCOLM ROAD	PETERCULTER - KIRKTON OF SKENE ROAD	FOLLOW ON TO
PETERCULTER - KIRKTON OF SKENE ROAD	B979	TO CITY LIMIT
B979	CARNIE ROUNDABOUT	ROUND - 3RD EXIT
CARNIE ROUNDABOUT	B9119	
B9119	"TOTAL" ROUNDABOUT	STRAIGHT - 3RD EXIT
"TOTAL" ROUNDABOUT	B9119	
B9119	B9119 ROUNDABOUT 'TAQA'	STRAIGHT - 2ND EXIT
B9119 ROUNDABOUT 'TAQA'	B9119	
B9119	B9119 ROUNDABOUT AT PROSPECT ROAD	STRAIGHT - 2ND EXIT
B9119 ROUNDABOUT AT PROSPECT ROAD	B9119 TO CITY BOUNDARY	
B9119 TO CITY BOUNDARY	TARLAND ROAD	TO CITY LIMIT
TARLAND ROAD	SKENE ROAD TO CITY BOUNDARY	LEFT
SKENE ROAD TO CITY BOUNDARY	A944	FOLLOW ON TO

A944	A944 ROUNDABOUT AT WESTHILL DRIVE	ROUND - 4TH EXIT
A944 ROUNDABOUT AT WESTHILL DRIVE	A944 TO CITY BOUNDARY	
A944 TO CITY BOUNDARY	SKENE ROAD	FOLLOW ON TO
SKENE ROAD	AWPR ROUNDABOUT	STRAIGHT - 3RD EXIT
AWPR ROUNDABOUT	SKENE ROAD	
SKENE ROAD	KINGSWELLS ROUNDABOUT	LEFT - 1ST EXIT
KINGSWELLS ROUNDABOUT	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	AWPR ROUNDABOUT	LEFT - 1ST EXIT
AWPR ROUNDABOUT	AWPR ACCESS ROAD	
AWPR ACCESS ROAD	AWPR ACCESS ROAD	TURN
AWPR ACCESS ROAD	AWPR ROUNDABOUT	RIGHT - 2ND EXIT
AWPR ROUNDABOUT	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	KINGSWELLS ROUNDABOUT	LEFT - 1ST EXIT
KINGSWELLS ROUNDABOUT	SKENE ROAD	LEFT - 1ST EXIT
SKENE ROAD	MIDDENCRAIG ROUNDABOUT	ROUND - 3RD EXIT
MIDDENCRAIG ROUNDABOUT	SKENE ROAD	
SKENE ROAD	KINGSWELLS ROUNDABOUT	STRAIGHT - 2ND EXIT
KINGSWELLS ROUNDABOUT	SKENE ROAD	
SKENE ROAD	AWPR ROUNDABOUT	STRAIGHT - 2ND EXIT
AWPR ROUNDABOUT	SKENE ROAD	
SKENE ROAD	SKENE ROAD TO CITY BOUNDARY	FOLLOW ON TO
SKENE ROAD TO CITY BOUNDARY	A944	FOLLOW ON TO
A944	A944 ROUNDABOUT AT WESTHILL DRIVE	ROUND - 4TH EXIT
A944 ROUNDABOUT AT WESTHILL DRIVE	A944 TO CITY BOUNDARY	
A944 TO CITY BOUNDARY	SKENE ROAD	FOLLOW ON TO
SKENE ROAD	AWPR ROUNDABOUT	STRAIGHT - 3RD EXIT
AWPR ROUNDABOUT	SKENE ROAD	
SKENE ROAD	KINGSWELL ROUNDABOUT	STRAIGHT - 2ND EXIT
KINGSWELL ROUNDABOUT	SKENE ROAD	
SKENE ROAD	MIDDENCRAIG ROUNDABOUT	STRAIGHT - 2ND EXIT
MIDDENCRAIG ROUNDABOUT	SKENE ROAD	
SKENE ROAD	CREMATORIUM LOOP	RIGHT

CREMATORIUM LOOP	SKENE ROAD	RIGHT
SKENE ROAD	QUEENS ROAD	FOLLOW ON TO
QUEENS ROAD	PROVOST GRAHAM AVENUE BUS LOOP	RIGHT
PROVOST GRAHAM AVENUE BUS LOOP	QUEENS ROAD	RIGHT
QUEENS ROAD	HAZLEHEAD ROUNDABOUT	COMPLETE - 2ND EXIT
HAZLEHEAD ROUNDABOUT	QUEENS ROAD	
QUEENS ROAD	KEPPLESTONE ROUNDABOUT	RIGHT - 3RD EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	RIGHT - 3RD EXIT
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT - 2ND EXIT
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SOUTH ANDERSON DRIVE	FOLLOW ON TO
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	GARTHDEE ROUNDABOUT	STRAIGHT - 2ND EXIT
GARTHDEE ROUNDABOUT	STONEHAVEN ROAD	STRAIGHT - 2ND EXIT
STONEHAVEN ROAD	GREAT SOUTHERN ROAD	LEFT - 1ST EXIT
GREAT SOUTHERN ROAD	KING GEORVE VI BRIDGE ROUNDABOUT	STRAIGHT - 2ND EXIT
KING GEORVE VI BRIDGE ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROAD	LEFT - 1ST EXIT
ABBOTSWELL ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WEST TULLOS DEPOT	LEFT



GOLD ROUTE 4		
STREET	ТО	DIRECTION
WEST TULLOS DEPOT	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	ABBOTSWELL ROAD	LEFT
ABBOTSWELL ROAD	ABBOTSWELL ROUNDABOUT	LEFT - 1ST EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	NIGG ROUNDABOUT	LEFT - 1ST EXIT
NIGG ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	CRAIGINCHES ROUNDABOUT	LEFT - 1ST EXIT
CRAIGINCHES ROUNDABOUT	QUEEN ELIZABETH BRIDGE	
QUEEN ELIZABETH BRIDGE	QUEEN ELIZABETH BRIDGE ROUNDABOUT	RIGHT - 3RD EXIT
QUEEN ELIZABETH BRIDGE ROUNDABOUT	NORTH ESPLANADE WEST	
NORTH ESPLANADE WEST	MARKET STREET	LEFT
MARKET STREET	UNION STREET	LEFT
UNION STREET	BRIDGE STREET	LEFT
BRIDGE STREET	WAPPING STREET	LEFT
WAPPING STREET	CARMELITE STREET	RIGHT
CARMELITE STREET	GUILD STREET	LEFT
GUILD STREET	TRINITY QUAY	STRAIGHT ON
TRINITY QUAY	VIRGINIA STREET	STRAIGHT ON
VIRGINIA STREET	COMMERCE STREET	LEFT
COMMERCE STREET	BEACH BOULEVARD ROUNDABOUT	COMPLETE - 5TH EXIT
BEACH BOULEVARD ROUNDABOUT	COMMERCE STREET	
COMMERCE STREET	VIRGINIA STREET	RIGHT
VIRGINIA STREET	TRINITY QUAY	FOLLOW ON TO
TRINITY QUAY	MARKET STREET	LEFT
MARKET STREET	NORTH ESPLANADE WEST	RIGHT
NORTH ESPLANADE WEST	QUEEN ELIZABETH BRIDGE	LEFT - 1ST EXIT
QUEEN ELIZABETH BRIDGE	WELLINGTON ROAD	ROUND - 3RD EXIT
WELLINGTON ROAD	NIGG ROUNDABOUT	STRAIGHT ON - 2ND EXIT
NIGG ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	ALTENS ROUNDABOUT	LEFT - 1ST EXIT
ALTENS ROUNDABOUT	SOUTER HEAD ROAD	
SOUTER HEAD ROAD	ALTENS ROUNDABOUT	COMPLETE AND RETURN TO
ALTENS ROUNDABOUT	WELLINGTON ROAD	LEFT - 2ND EXIT

WELLINGTON ROAD	STONEHAVEN ROAD - A92 NORTH	RIGHT
STONEHAVEN ROAD - A92 NORTH	BRIDGE OF DEE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	GARTHDEE ROUNDABOUT	COMPLETE - 4TH EXIT
GARTHDEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	BRIDGE OF DEE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD - A92 SOUTH	
STONEHAVEN ROAD - A92 SOUTH	STONEHAVEN ROAD - A92 SOUTH	UNDER OVERPASS
STONEHAVEN ROAD - A92 SOUTH	STONEHAVEN ROAD - MARYWELL JUNCTION	TAKE SLIP ROAD AND RETURN ON NORTH CARRIAGEWAY
STONEHAVEN ROAD - A92 NORTH	BRIDGE OF DEE ROUNDABOUT	RIGHT LANE
STONEHAVEN ROAD - A92 NORTH	BRIDGE OF DEE ROUNDABOUT	ROUND - 4TH EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD - A92 SOUTH	ROUND - 4TH EXIT
STONEHAVEN ROAD - A92 SOUTH	STONEHAVEN ROAD - A92 SOUTH - OFF SLIP ROAD	LEAVE AT A92 SLIP ROAD
STONEHAVEN ROAD - A92	WELLINGTON ROAD	LEFT
SOUTH - OFF SLIP ROAD	ALTENS POLINDA POLIT	STRAIGHT ON - 2ND EXIT
WELLINGTON ROAD	ALTENS ROUNDABOUT	STRAIGHT ON - ZNDEXIT
ALTENS ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	NIGG ROUNDABOUT	LEFT - 1ST EXIT
NIGG ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROUNDABOUT	STRAIGHT ON - 1ST EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	KING GEORGE VI ROUNDABOUT	STRAIGHT ON - 2ND EXIT
KING GEORGE VI ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	BRIDGE OF DEE ROUNDABOUT	ROUND - 4TH EXIT
BRIDGE OF DEE ROUNDABOUT	GREAT SOUTHERN ROAD	ROUND - 4TH EXIT
GREAT SOUTHERN ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	LEFT - 1ST EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	KING GEORGE VI BRIDGE	
KING GEORGE VI BRIDGE	DUTHIE PARK ROUNDABOUT	COMPLETE - 4TH EXIT
DUTHIE PARK ROUNDABOUT	KING GEORGE VI BRIDGE	
KING GEORGE VI BRIDGE	KING GEORGE VI ROUNDABOUT	LEFT - 1ST EXIT

KING GEORGE VI ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROUNDABOUT	ROUND - 3RD EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROUNDABOUT	RIGHT - 3RD EXIT
ABBOTSWELL ROUNDABOUT	KING GEORGE VI BRIDGE	
KING GEORGE VI BRIDGE	DUTHIE PARK ROUNDABOUT	STRAIGHT ON - 2ND EXIT
DUTHIE PARK ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	WHINHILL ROUNDABOUT	LEFT - 1ST EXIT
WHINHILL ROUNDABOUT	GREAT SOUTHERN ROAD	-
GREAT SOUTHERN ROAD	HOLBURN ROUNDABOUT	COMPLETE - 4TH EXIT
HOLBURN ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	WHINHILL ROUNDABOUT	RIGHT - 2ND EXIT
WHINHILL ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	DUTHIE PARK ROUNDABOUT	LEFT - 1ST EXIT
DUTHIE PARK ROUNDABOUT	RIVERSIDE DRIVE	
RIVERSIDE DRIVE	QUEEN ELIZABETH BRIDGE ROUNDABOUT	ROUND - 4TH EXIT
QUEEN ELIZABETH BRIDGE ROUNDABOUT	RIVERSIDE DRIVE	
RIVERSIDE DRIVE	DUTHIE PARK ROUNDABOUT	STRAIGHT ON - 2ND EXIT
DUTHIE PARK ROUNDABOUT	RIVERSIDE DRIVE	
RIVERSIDE DRIVE	HOLBURN STREET	LEFT
HOLBURN STREET	GARTHDEE ROUNDABOUT	LEFT - 1ST EXIT
GARTHDEE ROUNDABOUT	RIVERSIDE DRIVE	LEFT - 1ST EXIT
RIVERSIDE DRIVE	RIVERSIDE DRIVE	LEFT
RIVERSIDE DRIVE	HOLBURN STREET	RIGHT
HOLBURN STREET	HOLBURN ROUNDABOUT	LEFT - 1ST EXIT
HOLBURN ROUNDABOUT	HOLBURN STREET	
HOLBURN STREET	ALFORD PLACE	LEFT
ALFORD PLACE	ALBYN PLACE	FOLLOW ON TO
ALBYN PLACE	QUEENS CROSS	STRAIGHT ON - 2ND EXIT
QUEENS CROSS	QUEENS ROAD	
QUEENS ROAD	QUEENS GATE	STRAIGHT ON - 2ND EXIT
QUEENS GATE	QUEENS ROAD	
QUEENS ROAD	KEPPLESTONE ROUNDABOUT	LEFT - 1ST EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT ON - 2ND EXIT

SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SOUTH ANDERSON DRIVE	FOLLOW ON TO
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT ON - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	GARTHDEE ROUNDABOUT	ROUND - 4TH EXIT
GARTHDEE ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT ON - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	GREAT WESTERN ROAD A93	RIGHT
GREAT WESTERN ROAD A93	WILLOWBANK ROAD	STRAIGHT ON
WILLOWBANK ROAD	SPRINGBANK TERRACE	FOLLOW ON TO
SPRINGBANK TERRACE	WELLINGTON PLACE	STRAIGHT ON
WELLINGTON PLACE	SOUTH COLLEGE STREET	LEFT
SOUTH COLLEGE STREET	COLLEGE STREET	FOLLOW ON TO
COLLEGE STREET	BRIDGE STREET	BEAR LEFT
BRIDGE STREET	UNION STREET	LEFT
UNION STREET	ALFORD PLACE	BEAR RIGHT
ALFORD PLACE	VICTORIA STREET	RIGHT
VICTORIA STREET	WAVERLEY PLACE	LEFT
WAVERLEY PLACE	ALBERT STREET	FOLLOW ON TO
ALBERT STREET	CRAIGIE LOANINGS	STRAIGHT ON
CRAIGIE LOANINGS	WESTFIELD ROAD	FOLLOW ON TO
WESTFIELD ROAD	ARGYLL PLACE	STRAIGHT ON
ARGYLL PLACE	WESTBURN ROAD	LEFT
WESTBURN ROAD	NORTH ANDERSON DRIVE	RIGHT
NORTH ANDERSON DRIVE	"MURDO'S" ROUNDABOUT	ROUND - 5TH EXIT
"MURDO'S" ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	WESTBURN ROAD	LEFT
STREET	то	DIRECTION
WESTBURN ROAD	WESTBURN DRIVE	LEFT
WESTBURN DRIVE	ASHGROVE ROAD WEST	LEFT
ASHGROVE ROAD WEST	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	KINGS CROSS	STRAIGHT ON - 2ND EXIT
KINGS CROSS	ANDERSON DRIVE	
ANDERSON DRIVE	KEPPLESTONE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
KEPPLESTONE ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SEAFIELD ROUNDABOUT	STRAIGHT ON - 2ND EXIT

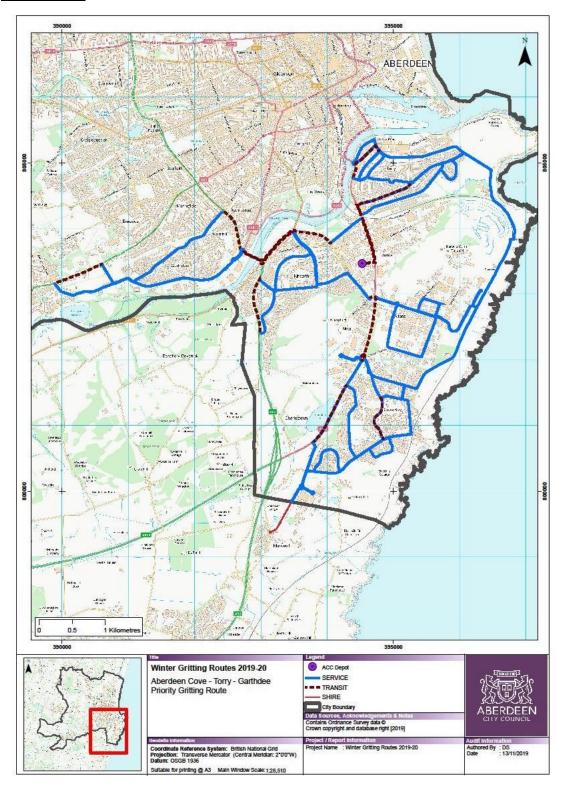
SEAFIELD ROUNDABOUT	ANDERSON DRIVE	
ANDERSON DRIVE	SOUTH ANDERSON DRIVE	FOLLOW ON TO
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	STRAIGHT ON - 2ND EXIT
BROOMHILL ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	GARTHDEE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
GARTHDEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	BRIDGE OF DEE ROUNDABOUT	LEFT - 1ST EXIT
BRIDGE OF DEE ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	KING GEORGE VI ROUNDABOUT	STRAIGHT ON - 2ND EXIT
KING GEORGE VI ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSWELL ROUNDABOUT	LEFT - 1ST EXIT
ABBOTSWELL ROUNDABOUT	ABBOTSWELL ROAD	
ABBOTSWELL ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WEST TULLOS DEPOT	LEFT

(b) Priority 1, Silver routes

The following described routes (numbered 5-10) cover Priority 1 Silver routes within the City and are to be treated between 04.45 and 21.00.

Bold Text - Treat	Italic - Run	Traffic Calming

Silver route 5



SILVER ROUTE 5		
STREET	то	DIRECTION
CRAIGSHAW DRIVE	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	ABBOTSWELL ROAD	LEFT
ABBOTSWELL ROAD	ABBOTSWELL ROUNDABOUT	RIGHT - 2ND EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	RIGHT - 2ND EXIT
WEST TULLOS ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	BRIDGE OF DEE ROUNDABOUT	RIGHT - 3RD EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD	_
STONEHAVEN ROAD	GARTHDEE ROUNDABOUT	LEFT - 1ST EXIT
GARTHDEE ROUNDABOUT	GARTHDEE ROAD	
GARTHDEE ROAD	ASDA ROUNDABOUT	COMPLETE -
ASDA ROUNDABOUT	GARTHDEE ROAD	3RD EXIT
GARTHDEE ROAD	GARTHDEE ROUNDABOUT	LEFT - 1ST EXIT
GARTHDEE ROUNDABOUT	SOUTH ANDERSON DRIVE	LEFT - 1ST EXIT
SOUTH ANDERSON DRIVE	BROOMHILL ROUNDABOUT	LEFT - 1ST EXIT
BROOMHILL ROUNDABOUT	AUCHINYELL ROAD	
AUCHINYELL ROAD	GARTHDEE ROAD	RIGHT
GARTHDEE ROAD	PITFODELS STATION ROAD	RIGHT
PITFODELS STATION ROAD	NORTH DEESIDE ROAD	LEFT
NORTH DEESIDE ROAD	WESTERTON ROAD	LEFT
WESTERTON ROAD	INCHGARTH ROAD	LEFT
INCHGARTH ROAD	GARTHDEE ROAD	STRAIGHT ON
GARTHDEE ROAD	SAINSBURYS ROUNDABOUT ROUNDABOUT	COMPLETE - 2ND EXIT
SAINSBURYS ROUNDABOUT ROUNDABOUT	GARTHDEE ROAD	
GARTHDEE ROAD	ASDA ROUNDABOUT	STRAIGHT ON - 2ND EXIT

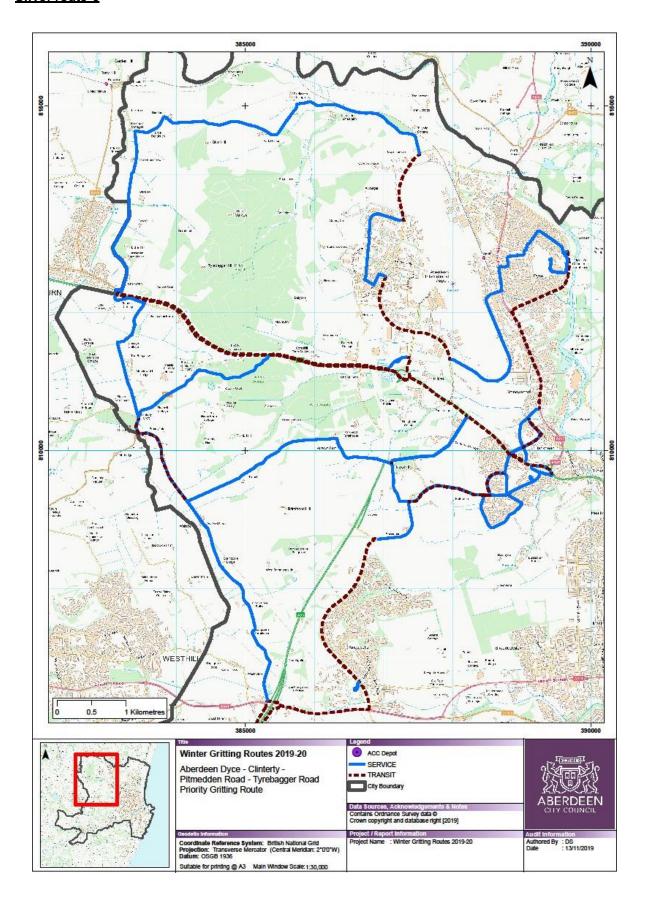
ASDA ROUNDABOUT	GARTHDEE ROAD	
GARTHDEE ROAD	GARTHDEE ROUNDABOUT	RIGHT - 3RD
GARTHDEE ROUNDABOUT	STONEHAVEN ROAD	EXIT
STONEHAVEN ROAD	BRIDGE OF DEE ROUNDABOUT	LEFT 1ST EXIT
BRIDGE OF DEE ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	KING GEORGE VI BRIDGE ROUNDABOUT	RIGHT - 3RD EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	PROVOST WATT DRIVE	
PROVOST WATT DRIVE	FAULDS GATE	RIGHT
FAULDS GATE	KINCORTH ROUNDABOUT	RIGHT - 3RD
KINCORTH ROUNDABOUT	CAIRNGORM ROAD	EXIT
CAIRNGORM ROAD	STONEHAVEN ROAD	LEFT
STONEHAVEN ROAD	NIGG WAY	LEFT
NIGG WAY	GARDNER DRIVE	LEFT
GARDNER DRIVE	KINCORTH ROUNDABOUT	RIGHT - 3RD EXIT
KINCORTH ROUNDABOUT	CAIRNGORM DRIVE	RIGHT - 3RD EXIT
CAIRNGORM DRIVE	PROVOST WATT DRIVE	LEFT
PROVOST WATT DRIVE	KING GEORGE VI BRIDGE ROUNDABOUT	ROUND - 4TH EXIT
KING GEORGE VI BRIDGE ROUNDABOUT	PROVOST WATT DRIVE	ROUND - 4TH EXIT
PROVOST WATT DRIVE	ARBROATH WAY	LEFT
ARBROATH WAY	ABBOTSWELL CRESCENT	RIGHT
ABBOTSWELL CRESCENT	REDMOSS ROAD	LEFT
REDMOSS ROAD	WEST TULLOS ROAD	RIGHT
WEST TULLOS ROAD	NIGG ROUNDABOUT	STRAIGHT ON - 2ND EXIT
NIGG ROUNDABOUT	HARENESS ROAD	
HARENESS ROAD	CRAWPEEL ROUNDABOUT	RIGHT - 3RD
CRAWPEEL ROUNDABOUT	CRAWPEEL ROAD	EXIT
CRAWPEEL ROAD	SOUTERHEAD ROUNDABOUT	LEFT - 1ST EXIT

SOUTERHEAD ROUNDABOUT	SOUTERHEAD ROAD	
SOUTERHEAD ROAD	BLACKNESS ROAD	LEFT
BLACKNESS ROAD	HARENESS ROUNDABOUT	STRAIGHT ON - 2ND EXIT
HARENESS ROUNDABOUT	MINTO ROAD	
MINTO ROAD	MINTO DRIVE	LEFT
MINTO DRIVE	MINTO AVENUE	LEFT
MINTO AVENUE	HARENESS ROAD	LEFT
STREET	то	DIRECTION
HARENESS ROAD	HARENESS ROUNDABOUT	ROUND - 4TH
HARENESS ROUNDABOUT	HARENESS ROAD	EXIT
HARENESS ROAD	CRAWPEEL ROUNDABOUT	STRAIGHT ON -
CRAWPEEL ROUNDABOUT	HARENESS ROAD	2ND EXIT
HARENESS ROAD	NIGG ROUNDABOUT	LEFT - 1ST EXIT
NIGG ROUNDABOUT	WELLINGTON ROAD	LEFT - 1ST EXIT
WELLINGTON ROAD	ALTENS ROUNDABOUT	RIGHT - 4TH
ALTENS ROUNDABOUT	WELLINGTON CIRCLE	EXIT
WELLINGTON CIRCLE	WELLINGTON CIRCLE	LEFT
WELLINGTON CIRCLE	WELLINGTON CIRCLE IKEA ROUNDABOUT	RIGHT - 4TH EXIT
WELLINGTON CIRCLE IKEA ROUNDABOUT	WELLINGTON CIRCLE	
WELLINGTON CIRCLE	WELLINGTON CIRCLE	RIGHT
WELLINGTON CIRCLE	ALTENS ROUNDABOUT	RIGHT - 4TH EXIT
ALTENS ROUNDABOUT	WELLINGTON ROAD	RIGHT - 4TH EXIT
WELLINGTON ROAD	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	COVE ROAD	LEFT
COVE ROAD	CHARLESTON DRIVE	LEFT
CHARLESTON DRIVE	COVE ROAD	LEFT
COVE ROAD	CHARLESTON ROAD	LEFT
CHARLESTON ROAD	CHARLESTON ROAD NORTH	LEFT
CHARLESTON ROAD NORTH	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	GATEWAY ROUNDABOUT	LEFT 1ST EXIT
GATEWAY ROUNDABOUT	GATEWAY DRIVE	
GATEWAY DRIVE	CHARLESTON MOSS ROUNDABOUT	COMPLETE - 4TH EXIT

CHARLESTON MOSS ROUNDABOUT	GATEWAY DRIVE	
GATEWAY DRIVE	GATEWAY ROUNDABOUT	LEFT - 1ST EXIT
GATEWAY ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	WELLINGTON ROAD	CITY LIMIT
WELLINGTON ROAD	ROUNDABOUT	ROUND 4TH
ROUNDABOUT	WELLINGTON ROAD	EXIT
WELLINGTON ROAD	WELLINGTON ROAD	TO CITY LIMIT
WELLINGTON ROAD	GATEWAY ROUNDABOUT	STRAIGHT ON - 1ST EXIT
GATEWAY ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	COVE ROAD	RIGHT
COVE ROAD	COVE CRESCENT	RIGHT - 2ND ENTRANCE
COVE CRESCENT	COVE ROAD	RIGHT
COVE ROAD	EARNS HEUGH ROAD	LEFT
EARNS HEUGH ROAD	LANGDYKES ROAD	LEFT
LANGDYKES ROAD	HYDROGEN STATION	LEFT
HYDROGEN STATION	LANGDYKES ROAD	LEFT
LANGDYKES ROAD	ALTENS ROUNDABOUT	ROUND - 5TH EXIT
ALTENS ROUNDABOUT	LANGDYKES ROAD	ROUND - 5TH EXIT
LANGDYKES ROAD	LORISTON ROAD	RIGHT
LORISTON ROAD	COVE ROAD	RIGHT
COVE ROAD	EARNS HEUGH ROAD	RIGHT
EARNS HEUGH ROAD	LORISTON AVENUE	RIGHT
LORISTON AVENUE	LORISTON ROAD	LEFT
LORISTON ROAD	LANGDYKES ROAD	RIGHT
LANGDYKES ROAD	COAST ROAD	LEFT
COAST ROAD	HARENESS ROAD	LEFT
HARENESS ROAD	HARENESS ROUNDABOUT	ROUND 4TH
HARENESS ROUNDABOUT	HARENESS ROAD	EXIT
HARENESS ROAD	HARENESS PLACE	LEFT
HARENESS PLACE	TURN POINT	ROUND
TURN POINT	HARENESS PLACE	ROUND
HARENESS PLACE	HARENESS ROAD	LEFT
HARENESS ROAD	COAST ROAD	LEFT
COAST ROAD	ST FITTICKS ROAD	LEFT

ST FITTICKS ROAD	BALNAGASK ROAD	LEFT
BALNAGASK ROAD	WELLINGTON ROAD	LEFT
WELLINGTON ROAD	GIRDLENESS ROAD	LEFT
GIRDLENESS ROAD	BALNAGASK ROAD	RIGHT
BALNAGASK ROAD	BALNAGASK CIRCLE	RIGHT
BALNAGASK CIRCLE	GIRDLENESS ROAD	RIGHT
GIRDLENESS ROAD	BALNAGASK ROAD	RIGHT
BALNAGASK ROAD	ST FITTICKS ROAD	LEFT
ST FITTICKS ROAD	VICTORIA ROAD	LEFT
VICTORIA ROAD	MENZIES ROAD	LEFT
STREET	ТО	DIRECTION
MENZIES ROAD	CRAIG PLACE	FOLLOW ON TO
CRAIG PLACE	CRAIGINCHES ROUNDABOUT	ROUND - 3RD
CRAIGINCHES ROUNDABOUT	SOUTH ESPLANADE WEST	EXIT
SOUTH ESPLANADE WEST	VICTORIA ROAD	RIGHT
VICTORIA ROAD	GRAMPIAN ROAD	RIGHT
GRAMPIAN ROAD	GRAMPIAN PLACE	RIGHT
GRAMPIAN PLACE	WALKER ROAD	RIGHT
WALKER ROAD	VICTORIA ROAD	LEFT
VICTORIA ROAD	MENZIES ROAD	LEFT
MENZIES ROAD	CRAIG PLACE	FOLLOW ON TO
CRAIG PLACE	CRAIGINCHES ROUNDABOUT	LEFT - 1ST EXIT
CRAIGINCHES ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	GRAMPIAN PLACE	LEFT
GRAMPIAN PLACE	TULLOS CIRCLE	RIGHT
TULLOS CIRCLE	TULLOS PLACE	STRAIGHT ON - 2ND EXIT
TULLOS PLACE	ROUNDABOUT	COMPLETE -
ROUNDABOUT	BALNAGASK ROAD	3RD EXIT
BALNAGASK ROAD	WELINGTON ROAD	LEFT
WELINGTON ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WEST TULLOS DEPOT	RIGHT

Silver route 6



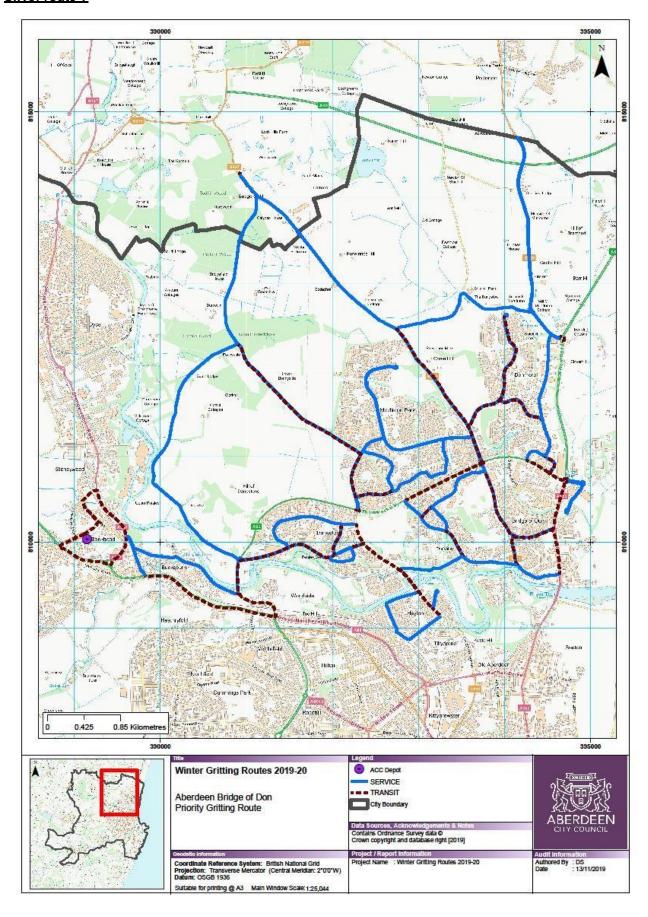
SILVER ROUTE 6		
STREET	то	DIRECTION
WEST TULLOS DEPOT	CRAIGSHAW DRIVE	LEFT
CRAIGSHAW DRIVE	WELLINGTON ROAD	RIGHT
WELLINGTON ROAD	NIGG ROUNDABOUT	STRAIGHT ON - 2ND EXIT
NIGG ROUNDABOUT	WELLINGTON ROAD	-
WELLINGTON ROAD	ALTENS ROUNDABOUT	STRAIGHT ON - 3RD EXIT
ALTENS ROUNDABOUT	WELLINGTON RDAD -	_
WELLINGTON RDAD -	AWPR ROUNDABOUT	RIGHT - 2ND EXIT
AWPR ROUNDABOUT	A90 NORTH	-
A90 NORTH	AWPR ROUNDABOUT	LEFT A944 JUNCTION
AWPR ROUNDABOUT	SKENE ROAD	RIGHT - 4TH EXIT
SKENE ROAD	KINGSWELLS ROUNDABOUT	LEFT - 1ST EXIT
KINGSWELLS ROUNDABOUT	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	KINGSWELLS P&R LOOP	LEFT
KINGSWELLS P&R LOOP	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	LEFT
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	AWPR ROUNDABOUT	STRAIGHT ON - 2ND EXIT
AWPR ROUNDABOUT	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	STRAIGHT ON - 2ST EXIT
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	NEWHILLS ROAD	RIGHT
NEWHILLS ROAD	KEPPLEHILLS ROAD	FOLLOW ON TO
KEPPLEHILLS ROAD	NETHERHILLS AVENUE	RIGHT
NETHERHILLS AVENUE	NEWHILLS AVENUE	RIGHT
NEWHILLS AVENUE	KEPPLEHILLS ROAD	RIGHT
KEPPLEHILLS ROAD	SCLATTIE PARK	LEFT
SCLATTIE PARK	KEPPLEHILLS DRIVE	LEFT
KEPPLEHILLS DRIVE	KEPPLEHILLS ROAD	LEFT
KEPPLEHILLS ROAD	BUCKSBURN ACADEMY LOOP	LEFT
BUCKSBURN ACADEMY LOOP	KEPPLEHILLS ROAD	LEFT
KEPPLEHILLS ROAD	INVERURIE ROAD	RIGHT
INVERURIE ROAD	INVERURIE ROAD	LEFT
INVERURIE ROAD	BUCKSBURN ROUNDABOUT	LEFT
BUCKSBURN ROUNDABOUT	INVERURIE ROAD	KEEP LEFT

INVERURIE ROAD	INVERURIE ROAD	LEFT
INVERURIE ROAD	INVERURIE ROAD	LEFT
INVERURIE ROAD	INVERURIE ROAD	KEEP LEFT
INVERURIE ROAD	SCLATTIE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SCLATTIE ROUNDABOUT	INVERURIE ROAD	
INVERURIE ROAD	FORRIT BRAE	LEFT
FORRIT BRAE	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	LEFT
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	NEWHILLS ROAD	FOLLOW ON TO
NEWHILLS ROAD	KEPPLEHILLS DRIVE	LEFT
KEPPLEHILLS DRIVE	SCLATTIE PARK	LEFT
SCLATTIE PARK	SCLATTIE ROUNDABOUT	RIGHT - 3RD EXIT
SCLATTIE ROUNDABOUT	INVERURIE ROAD	RIGHT - 3RD EXIT
INVERURIE ROAD	GREENBURN DRIVE	LEFT
GREENBURN DRIVE	BANKHEAD AVENUE	LEFT
BANKHEAD AVENUE	SCLATTIE ROUNDABOUT	ROUND - 4TH EXIT
SCLATTIE ROUNDABOUT	BANKHEAD AVENUE	ROUND - 4TH EXIT
BANKHEAD AVENUE	BANKHEAD ROAD	LEFT
BANKHEAD ROAD	GREENBURN DRIVE	LEFT
GREENBURN DRIVE	BANKHEAD AVENUE	LEFT
BANKHEAD AVENUE	BANKHEAD ROAD	LEFT
BANKHEAD ROAD	STONEYWOOD ROAD	RIGHT
STONEYWOOD ROAD	STONEYWOOD ROAD	LEFT
STONEYWOOD ROAD	ROUNDABOUT	STRAIGHT ON - 1ST EXIT
ROUNDABOUT	STONEYWOOD ROAD	
STONEYWOOD ROAD	"BP" ROUNDABOUT	RIGHT - 2ND EXIT
"BP" ROUNDABOUT	RIVERVIEW DRIVE	
RIVERVIEW DRIVE	NETHERVIEW AVENUE	LEFT
NETHERVIEW AVENUE	ROUNDABOUT	LEFT - 1ST EXIT
ROUNDABOUT	DYCE SHOPPING CENTRE LOOP	LEFT - 1ST EXIT
DYCE SHOPPING CENTRE LOOP	ROUNDABOUT	FOLLOW LOOP TO ROUNDABOUT AND RETURN
ROUNDABOUT	NETHERVIEW AVENUE	STRAIGHT ON - 2ND EXIT
NETHERVIEW AVENUE	GORDON TERRACE	STRAIGHT ON
GORDON TERRACE	NETHERVIEW ROAD	LEFT
NETHERVIEW ROAD	GLEN ROAD	RIGHT
GLEN ROAD	VICTORIA STREET	LEFT

VICTORIA STREET	FARBURN TERRACE	RIGHT
FARBURN TERRACE	FARBURN ROUNDABOUT	LEFT - 1ST EXIT
FARBURN ROUNDABOUT	WELLHEADS DRIVE	
WELLHEADS DRIVE	DYCE DRIVE	RIGHT
DYCE DRIVE	HOWE MOSS ROAD	LEFT
HOWE MOSS ROAD	HOWE MOSS DRIVE	LEFT
HOWE MOSS DRIVE	HOWE MOSS CRESCENT	RIGHT
HOWE MOSS CRESCENT	HOWE MOSS AVENUE	RIGHT
HOWE MOSS AVENUE	DYCE DRIVE	LEFT
DYCE DRIVE	PITMEDDEN ROAD	LEFT
PITMEDDEN ROAD	CASKIEBEN ROAD	LEFT
CASKIEBEN ROAD	MAIN ROAD	LEFT
MAIN ROAD	INVERURIE ROAD	LEFT - 1ST EXIT
INVERURIE ROAD	AIRPORT PARK & RIDE	LEFT SLIP AT PARK AND RIDE
AIRPORT PARK & RIDE	ARGYLL ROAD	RIGHT
ARGYLL ROAD	AIRPORT ROUNDABOUT	RIGHT - 3RD EXIT
AIRPORT ROUNDABOUT	INVERURIE ROAD	
INVERURIE ROAD	A96 ROUNDABOUT	LEFT - 1ST EXIT
A96 ROUNDABOUT	CLINTERTY ROAD	
CLINTERTY ROAD	CLINTERTY ROAD	RIGHT
CLINTERTY ROAD	CLINTERTY - TYREBAGGER ROAD	RIGHT
CLINTERTY - TYREBAGGER ROAD	BORROWSTONE ROAD	LEFT
BORROWSTONE ROAD	TULLUCH ROAD	LEFT
TULLUCH ROAD	CHAPEL OF STONEYWOOD - FAIRLEY ROAD	LEFT
CHAPEL OF STONEYWOOD - FAIRLEY ROAD	FORRIT BRAE	RIGHT
FORRIT BRAE	INVERURIE ROAD	LEFT
INVERURIE ROAD	AIRPORT ROUNDABOUT	STRAIGHT ON - 2ND EXIT
AIRPORT ROUNDABOUT	INVERURIE ROAD	
INVERURIE ROAD	CLINTERTY - TYREBAGGER ROAD	LEFT
CLINTERTY - TYREBAGGER ROAD	CLINTERTY - TYREBAGGER ROAD	STRAIGHT ON
CLINTERTY - TYREBAGGER ROAD	BORROWSTONE ROAD	LEFT
BORROWSTONE ROAD	BORROWSTONE ROAD	STRAIGHT ON

BORROWSTONE ROAD	AWPR ROUNDABOUT	LEFT - 2ND EXIT
AWPR ROUNDABOUT	A90 SOUTH	TO AWPR - 5TH EXIT
A90 SOUTH	AWPR ROUNDABOUT	TO A956
AWPR ROUNDABOUT	WELLINGTON ROAD	WELLINGTON ROAD
WELLINGTON ROAD	ALTENS ROUNDABOUT	STRAIGHT ON - 2ND EXIT
ALTENS ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	NIGG ROUNDABOUT	STRAIGHT ON - 2ND EXIT
NIGG ROUNDABOUT	WELLINGTON ROAD	
WELLINGTON ROAD	CRAIGSHAW DRIVE	LEFT
CRAIGSHAW DRIVE	WEST TULLOS DEPOT	RIGHT

Silver route 7



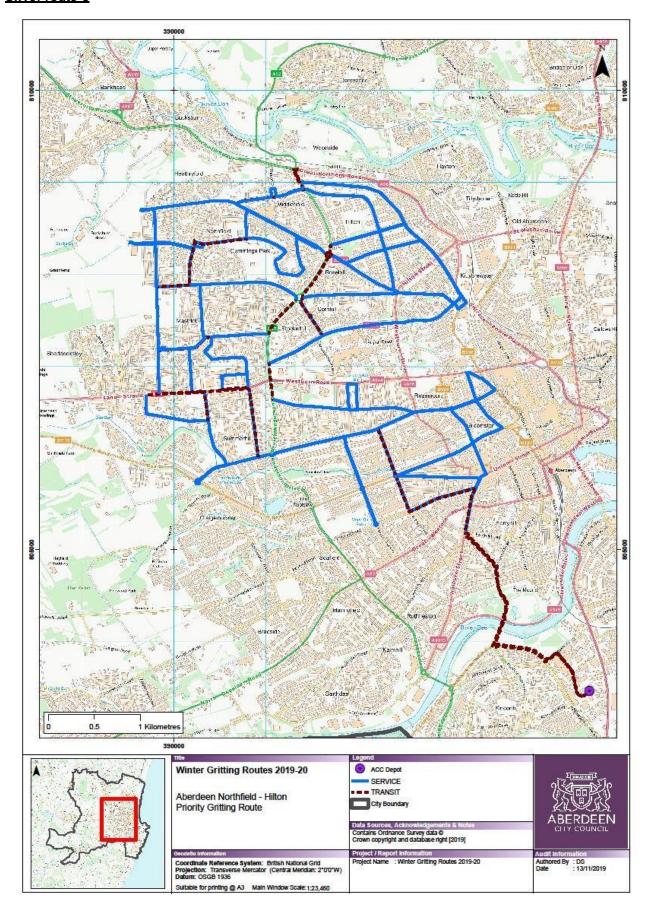
STREET	то	DIRECTION
BUCKSBURN DEPOT	BANKHEAD AVENUE	RIGHT
BANKHEAD AVENUE	BANKHEAD ROAD	LEFT
BANKHEAD ROAD	STONEYWOOD ROAD	RIGHT
-	NEW STONEYWOOD ROAD	RIGHT
STONEYWOOD ROAD		
NEW STONEYWOOD ROAD	OLD MELDRUM ROAD	LEFT
OLD MELDRUM ROAD	MUGIEMOSS ROAD	LEFT
MUGIEMOSS ROAD	MUGIEMOSS ROUNDABOUT	LEFT - 1ST EXIT
MUGIEMOSS ROUNDABOUT	PARKWAY	LEFT - 1ST EXIT
PARKWAY	"TESCO" ROUNDABOUT	RIGHT - 3RD EXIT
"TESCO" ROUNDABOUT	LAUREL DRIVE	
LAUREL DRIVE	FAIRVIEW STREET	LEFT
FAIRVIEW STREET	FAIRVIEW BRAE	RIGHT
FAIRVIEW BRAE	LAUREL DRIVE	RIGHT
LAUREL DRIVE	LAUREL PLACE	LEFT
LAUREL PLACE	LAUREL DRIVE	LEFT
LAUREL DRIVE	FAIRVIEW BRAE	RIGHT
FAIRVIEW BRAE	FAIRVIEW STREET	RIGHT
FAIRVIEW STREET	GORDON BRAE	RIGHT
GORDON BRAE	LAUREL DRIVE	RIGHT
LAUREL DRIVE	"TESCO" ROUNDABOUT	STRAIGHT ON - 2ND EXIT
"TESCO" ROUNDABOUT	UPPER PERSLEY ROAD	
UPPER PERSLEY ROAD	WHITESTRIPES ROAD	RIGHT
WHITESTRIPES ROAD	WHITESTRIPES AVENUE	LEFT
WHITESTRIPES AVENUE	JESMOND AVENUE NORTH	RIGHT
JESMOND AVENUE NORTH	VALENTINE ROAD	RIGHT
VALENTINE ROAD	WHITESTRIPES AVENUE	LEFT
WHITESTRIPES AVENUE	DANESTONE ROUNDABOUT	ROUND - 4TH EXIT
DANESTONE ROUNDABOUT	WHITESTRIPES AVENUE	ROUND - 4TH EXIT
WHITESTRIPES AVENUE	JESMOND DRIVE	LEFT
JESMOND DRIVE	JESMOND DRIVE	TO BUS TURN POINT
JESMOND DRIVE	JESMOND DRIVE	INTO BUS TURN POINT
JESMOND DRIVE	JESMOND DRIVE	LEFT
JESMOND DRIVE	SCOTSTOWN ROAD	RIGHT
SCOTSTOWN ROAD	SCOTSTOWN ROUNDABOUT	ROUND - 4TH EXIT

SCOTSTOWN ROUNDABOUT	SCOTSTOWN ROAD	ROUND - 4TH EXIT
SCOTSTOWN ROAD	JESMOND DRIVE	LEFT
JESMOND DRIVE	JESMOND AVENUE	LEFT
JESMOND AVENUE	VALENTINE ROAD	FOLLOW ON TO
VALENTINE ROAD	WHITESTRIPES AVENUE	RIGHT
WHITESTRIPES AVENUE	WHITESTRIPES ROAD	LEFT
WHITESTRIPES ROAD	WHITESTRIPES ROAD	FOLLOW ON TO
WHITESTRIPES ROAD	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	TURN POINT	RIGHT TO TURN IN QUARRY OPENING
TURN POINT	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	DUBFORD ROAD	LEFT
DUBFORD ROAD	SHIELHILL AVENUE	FOLLOW ON TO
SHIELHILL AVENUE	SHIELHILL AVENUE	TO BUS TURN
SHIELHILL AVENUE	DUBFORD ROAD	FOLLOW ON TO
DUBFORD ROAD	GREENBRAE DRIVE	LEFT
STREET	то	DIRECTION
GREENBRAE DRIVE	DENMORE ROAD	RIGHT
DENMORE ROAD	WOODSIDE ROAD	RIGHT
WOODSIDE ROAD	THE PARKWAY	LEFT
THE PARKWAY	WOODSIDE ROAD	LEFT
WOODSIDE ROAD	DENMORE ROAD	RIGHT
DENMORE ROAD	GREENBRAE DRIVE	LEFT
GREENBRAE DRIVE	DUBFORD ROAD	LEFT
DUBFORD ROAD	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	SCOTSTOWN ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SCOTSTOWN ROUNDABOUT	SCOTSTOWN ROAD	STRAIGHT ON - 2ND EXIT
SCOTSTOWN ROAD	NORTH DONSIDE ROAD	FOLLOW ON TO
NORTH DONSIDE ROAD	GORDON BARRACKS ROUNDABOUT	LEFT - 1ST EXIT
GORDON BARRACKS ROUNDABOUT	ELLON ROAD	LEFT - 1ST EXIT
ELLON ROAD	AECC ROUNDABOUT	RIGHT - 3RD EXIT
AECC ROUNDABOUT	PARKWAY EAST	
PARKWAY EAST	TECHNOLOGY PARK ROUNDABOUT	RIGHT - 3RD EXIT
TECHNOLOGY PARK ROUNDABOUT	AECC P & R LOOP	RIGHT - 3RD EXIT

AECC P & R LOOP	TECHNOLOGY PARK ROUNDABOUT	LEFT - 1ST EXIT
TECHNOLOGY PARK ROUNDABOUT	PARKWAY EAST	LEFT - 1ST EXIT
PARKWAY EAST	AECC ROUNDABOUT	STRAIGHT ON - 2ND EXIT
AECC ROUNDABOUT	THE PARKWAY	STRAIGHT ON - 2ND EXIT
THE PARKWAY	WOODSIDE ROAD	RIGHT
WOODSIDE ROAD	DENMORE ROAD	RIGHT
DENMORE ROAD	B999	RIGHT
B999	MURCAR ROUNDABOUT	ROUND - 4TH EXIT
MURCAR ROUNDABOUT	B999	ROUND - 4TH EXIT
В999	B999	TURN AT "TATTIE SHEDS"
B999	SHIELHILL ROAD	RIGHT
SHIELHILL ROAD	SHIELHILL ROUNDABOUT	LEFT
SHIELHILL ROUNDABOUT	SHIELHILL ROAD	
SHIELHILL ROAD	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	SCOTSTOWN ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SCOTSTOWN ROUNDABOUT	SCOTSTOWN ROAD	
SCOTSTOWN ROAD	SCOTSTOWN ROAD	RIGHT
SCOTSTOWN ROAD	BALGOWNIE ROAD	FOLLOW ON TO
BALGOWNIE ROAD	ELLON ROAD	LEFT
ELLON ROAD	BALGOWNIE ROAD	LEFT - 1ST EXIT
BALGOWNIE ROAD	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	BALGOWNIE ROAD	RIGHT
BALGOWNIE ROAD	BRAEHEAD WAY	RIGHT
BRAEHEAD WAY	SCOTSTOWN ROAD	LEFT
SCOTSTOWN ROAD	SCOTSTOWN ROUNDABOUT	LEFT - 1ST EXIT
SCOTSTOWN ROUNDABOUT	THE PARKWAY	LEFT - 1ST EXIT
THE PARKWAY	BALGOWNIE ROAD	LEFT
BALGOWNIE ROAD	BRAEHEAD WAY	LEFT
BRAEHEAD WAY	BODACRA ROAD	RIGHT
BODACRA ROAD	BALGOWNIE ROAD	LEFT
BALGOWNIE ROAD	BALGOWNIE DRIVE	RIGHT
BALGOWNIE DRIVE	GRANDHOME DRIVE	LEFT
GRANDHOME DRIVE	GORDON BRAE	LEFT
GORDON BRAE	PAPERMILL DRIVE BUS LOOP	LEFT

PAPERMILL DRIVE BUS LOOP	GORDON MILLS ROAD	LEFT
GORDON MILLS ROAD	HAYTON ROAD	RIGHT
HAYTON ROAD	DONBANK TERRACE	RIGHT
DONBANK TERRACE	GORDON MILLS ROAD	RIGHT
GORDON MILLS ROAD	GORDON MILLS ROAD	LEFT
GORDON MILLS ROAD	LAUREL DRIVE	LEFT
LAUREL DRIVE	"TESCO" ROUNDABOUT	LEFT - 1ST EXIT
"TESCO" ROUNDABOUT	THE PARKWAY	
THE PARKWAY	MUGIEMOSS ROUNDABOUT	LEFT - 1ST EXIT
MUGIEMOSS ROUNDABOUT	MUGIEMOSS ROAD	
MUGIEMOSS ROAD	HAUDAGAIN ROUNDABOUT	RIGHT - 3RD EXIT
HAUDAGAIN ROUNDABOUT	AUCHMILL ROAD	RIGHT - 3RD EXIT
AUCHMILL ROAD	OLD MELDRUM ROAD	RIGHT
OLD MELDRUM ROAD	NEW STONEYWOOD ROAD	LEFT
NEW STONEYWOOD ROAD	BUCKSBURN ROUNDABOUT	RIGHT - 2ND EXIT
BUCKSBURN ROUNDABOUT	INVERURIE ROAD	RIGHT - 2ND EXIT
INVERURIE ROAD	SCLATTIE ROUNDABOUT	RIGHT - 3RD EXIT
SCLATTIE ROUNDABOUT	BANKHEAD AVENUE	
BANKHEAD AVENUE	BUCKSBURN DEPOT	RIGHT

Silver route 8



SILVER ROUTE 8		
DIRECTION	то	STREET
RIGHT	CRAIGSHAW DRIVE	WEST TULLOS DEPOT
LEFT	ABBOTSWELL ROAD	CRAIGSHAW DRIVE
RIGHT - 2ND EXIT	ABBOTSWELL ROAD ROUNDABOUT	ABBOTSWELL ROAD
	WEST TULLOS ROAD	ABBOTSWELL ROAD ROUNDABOUT
RIGHT- 3RD EXIT	KING GEORGE VI ROUNDABOUT	WEST TULLOS ROAD
	GREAT SOUTHERN ROAD	KING GEORGE VI ROUNDABOUT
STRAIGHT ON - 2ND EXIT	DUTHIE PARK ROUNDABOUT	GREAT SOUTHERN ROAD
	GREAT SOUTHERN ROAD	DUTHIE PARK ROUNDABOUT
LEFT - 1ST EXIT	WHINHILL ROUNDABOUT	GREAT SOUTHERN ROAD
	GREAT SOUTHERN ROAD	WHINHILL ROUNDABOUT
RIGHT - 2ND EXIT	HOLBURN ROUNDABOUT	GREAT SOUTHERN ROAD
	HOLBURN STREET	HOLBURN ROUNDABOUT
LEFT	UNION GROVE	HOLBURN STREET
RIGHT	ST SWITHIN STREET	UNION GROVE
STRAIGHT ON - 2ND EXIT	QUEENS CROSS	ST SWITHIN STREET
STRAIGHT ON - 2ND EXIT	FOUNTAINHALL ROAD	QUEENS CROSS
LEFT	KINGS GATE	FOUNTAINHALL ROAD
LEFT	FOREST ROAD	KINGS GATE
STRAIGHT ON 2ND EXIT	QUEENS GATE	FOREST ROAD
	FOREST AVENUE	QUEENS GATE
COMPLETE - 4TH EXIT	RENDEZVOUS ROUNDABOUT	FOREST AVENUE
	FOREST AVENUE	RENDEZVOUS ROUNDABOUT
STRAIGHT ON 2ND EXIT	QUEENS GATE	FOREST AVENUE

QUEENS GATE	FOREST ROAD	
FOREST ROAD	KINGS GATE	LEFT
KINGS GATE	KINGS CROSS	STRAIGHT ON 2ND EXIT
KINGS CROSS	KINGS GATE	- STRAIGHT GREAT
KINGS GATE	SUMMERHILL ROAD	RIGHT
SUMMERHILL ROAD	MASTRICK DRIVE	STRAIGHT ON
MASTRICK DRIVE	WHITEMYRES AVENUE	LEFT
WHITEMYRES AVENUE	WHITEMYRES PLACE	LEFT
WHITEMYRES PLACE	LANG STRACHT	LEFT
LANG STRACHT	MASTRICK DRIVE	LEFT
MASTRICK DRIVE	ARNAGE DRIVE	RIGHT
ARNAGE DRIVE	NEWPARK PLACE	LEFT
NEWPARK PLACE	MASTRICK ROAD	LEFT
MASTRICK ROAD	GREENFERN ROAD	FOLLOW ON TO
GREENFERN ROAD	FERNHILL DRIVE	LEFT
FERNHILL DRIVE	LANG STRACHT	LEFT
LANG STRACHT	STRONSAY DRIVE	RIGHT
STRONSAY DRIVE	KINGS GATE	RIGHT
KINGS GATE	HAZELHEAD ROUNDABOUT	COMPLETE - 4TH EXIT
HAZELHEAD ROUNDABOUT	KINGS GATE	
KINGS GATE	SUMERHILL ROAD	LEFT
SUMERHILL ROAD	LANG STRACHT	LEFT
LANG STRACHT	ROUSAY DRIVE	LEFT
ROUSAY DRIVE	EDAY ROAD	LEFT
EDAY ROAD	STRONSAY DRIVE	LEFT
STRONSAY DRIVE	LANG STRACHT	LEFT
LANG STRACHT	SPRINGHILL ROAD	RIGHT
SPRINGHILL ROAD	GREENFERN ROAD	RIGHT
GREENFERN ROAD	GREENFERN ROAD BUS LOOP	2ND ENTRY - LEFT
GREENFERN ROAD BUS LOOP	GREENFERN ROAD	LEFT
GREENFERN ROAD	UPPER MASTRICK WAY	LEFT
UPPER MASTRICK WAY	PROVOST FRASER DRIVE	LEFT
PROVOST FRASER DRIVE	SPRINGHILL ROAD	LEFT
SPRINGHILL ROAD	GREENFERN ROAD	LEFT
SPRINGHILL ROAD		

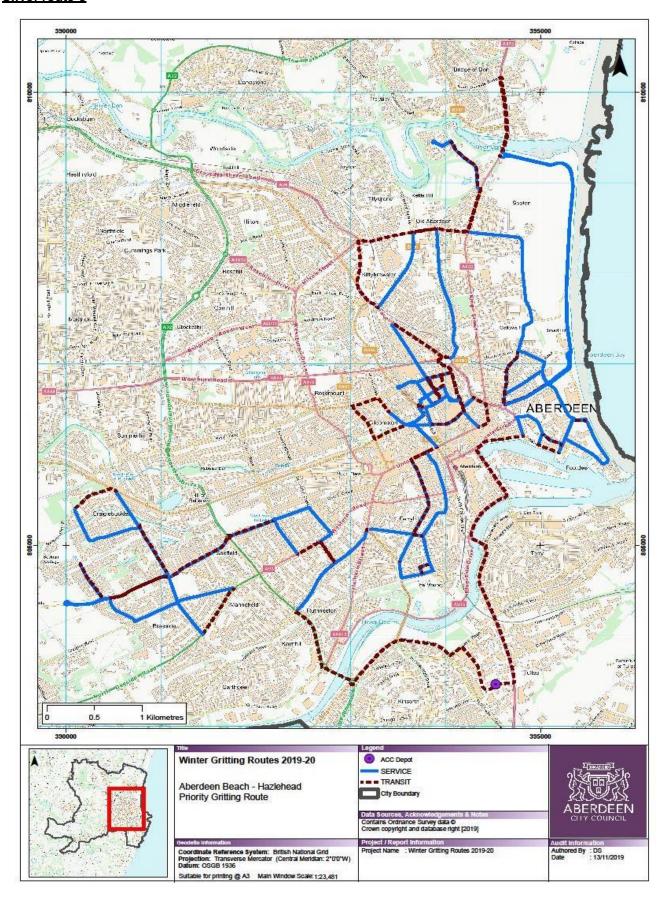
GREENFERN ROAD	MASTRICK ROAD	FOLLOW ON TO
MASTRICK ROAD	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	CAIRNCRY ROUNDABOUT	LEFT - 1ST EXIT
CAIRNCRY ROUNDABOUT	PROVOST FRASER DRIVE	LEFT - 1ST EXIT
PROVOST FRASER DRIVE	BYRON AVENUE	RIGHT
STREET	то	DIRECTION
BYRON AVENUE	BYRON SQUARE	RIGHT
BYRON SQUARE	BYRON SQUARE	RIGHT
BYRON SQUARE	BYRON AVENUE	LEFT
BYRON AVENUE	BREBNER TERRACE	RIGHT
BREBNER TERRACE	DAVIDSON GARDENS	STRAIGHT
DAVIDSON GARDENS	HOWES ROAD	STRAIGHT
HOWES ROAD	HOWES ROAD BUS LOOP	LEFT
HOWES ROAD BUS LOOP	HOWES ROAD	RIGHT
HOWES ROAD	DAVIDSON GARDENS	STRAIGHT
DAVIDSON GARDENS	BREBNER TERRACE	STRAIGHT
BREBNER TERRACE	BYRON AVENUE	LEFT
BYRON AVENUE	BYRON SQUARE	RIGHT
BYRON SQUARE	QUARRY ROAD	FOLLOW ON TO
QUARRY ROAD	CUMMINGS PARK CRESCENT	MINI ROUNDABOUT - STRAIGHT ON
CUMMINGS PARK CRESCENT	CUMMINGS PARK CRESCENT	STRAIGHT ON
CUMMINGS PARK CRESCENT	CUMMINGS PARK CIRCLE	RIGHT
CUMMINGS PARK CIRCLE	MOIR CRESCENT	LEFT
MOIR CRESCENT	PROVOST RUST DRIVE	RIGHT
PROVOST RUST DRIVE	PROVOST RUST DRIVE	LEFT
PROVOST RUST DRIVE	GRANITEHILL ROAD	LEFT
GRANITEHILL ROAD	QUARRY ROAD	RIGHT
QUARRY ROAD	BYRON SQUARE	FOLLOW ON TO
BYRON SQUARE	BYRON AVENUE	LEFT
BYRON AVENUE	PROVOST FRASER DRIVE	RIGHT
PROVOST FRASER DRIVE	SPRINGHILL ROAD	RIGHT
SPRINGHILL ROAD	PROVOST RUST DRIVE	LEFT
PROVOST RUST DRIVE	PROVOST RUST DRIVE BUS LOOP	ROUND BUS LOOP

PROVOST RUST DRIVE BUS LOOP	PROVOST RUST DRIVE	
PROVOST RUST DRIVE	MANOR AVENUE	LEFT
MANOR AVENUE	LOGIE TERRACE	LEFT
LOGIE TERRACE	LOGIE PLACE	RIGHT
LOGIE PLACE	MANOR TERRACE	RIGHT
MANOR AVENUE	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	HOUDAGAIN ROUNDABOUT	ROUND - 4TH EXIT
HOUDAGAIN ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	CLIFTON ROAD	LEFT
CLIFTON ROAD	HILTON ROAD	RIGHT
HILTON ROAD	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	ROSEHILL ROUNDABOUT	RIGHT - 3RD EXIT
ROSEHILL ROUNDABOUT	PROVOST RUST DRIVE	
PROVOST RUST DRIVE	MANOR AVENUE	RIGHT
MANNOR TERRACE	MANOR AVENUE	LEFT
MANOR AVENUE	HILTON DRIVE	STRAIGHT ON - BUS GATE
HILTON DRIVE	SIX ROADS ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SIX ROADS ROUNDABOUT	BACK HILTON ROAD	STRAIGHT ON - 2ND EXIT
BACK HILTON ROAD	BERRYDEN ROAD	FOLLOW ON TO
BERRYDEN ROAD	BELMONT ROAD	LEFT
BELMONT ROAD	POWIS TERRACE	LEFT
POWIS TERRACE	CLIFTON ROAD	KEEP LEFT
CLIFTON ROAD	HILTON ROAD	LEFT
HILTON ROAD	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	ROSEHILL ROUNDABOUT	STRAIGHT ON - 2ND EXIT
ROSEHILL ROUNDABOUT	NORTH ANDERSON DRIVE	
NORTH ANDERSON DRIVE	MURDO'S ROUNDABOUT	STRAIGHT ON - 2ND EXIT
MURDO'S ROUNDABOUT	FORESTERHILL ROAD	
FORESTERHILL ROAD	CORNHILL ROUNDABOUT	STRAIGHT ON - 2ND
CORNHILL ROUNDABOUT	FORESTERHILL ROAD	EXIT
FORESTERHILL ROAD	ASHGROVE ROAD WEST	LEFT
ASHGROVE ROAD WEST	ASHGROVE ROAD	STRAIGHT ON
ASHGROVE ROAD	POWIS TERRACE	LEFT

POWIS TERRACE	CLIFTON ROAD	KEEP LEFT
CLIFTON ROAD	HILTON AVENUE	LEFT
HILTON AVENUE	ROSEHILL DRIVE	RIGHT
ROSEHILL DRIVE	ROSEHILL ROUNDABOUT	ROUND - 4TH EXIT
ROSEHILL ROUNDABOUT	ROSEHILL DRIVE	ROUND 4TH EXIT
ROSEHILL DRIVE	SIX ROADS ROUNDABOUT	RIGHT TO ROUND A BO UT
SIX ROADS ROUNDABOUT	CAIRNCRY ROAD	RIGHT - 4TH EXIT
CAIRNCRY ROAD	MURDO'S ROUNDABOUT	LEFT - 1ST EXIT
MURDO'S ROUNDABOUT	FORESTERHILL ROAD	LEFT - 1ST EXIT
FORESTERHILL ROAD	CORNHILL ROUNDABOUT	STRAIGHT ON - 2ND
CORNHILL ROUNDABOUT	FORESTERHILL ROAD	EXIT
FORESTERHILL ROAD	ASHGROVE ROAD WEST	RIGHT
ASHGROVE ROAD WEST	NORTH ANDERSON DRIVE	LEFT
NORTH ANDERSON DRIVE	MIDSTOCKET ROAD	LEFT
MIDSTOCKET ROAD	CAMPERDOWN ROAD	LEFT
CAMPERDOWN ROAD	WESTBURN ROAD	LEFT
WESTBURN ROAD	HARCOURT ROAD	LEFT
HARCOURT ROAD	MIDSTOCKET ROAD	LEFT
MIDSTOCKET ROAD	ROSEMOUNT PLACE	LEFT
ROSEMOUNT PLACE	ROSEMOUNT ROUNDABOUT	LEFT - 1ST EXIT
ROSEMOUNT ROUNDABOUT	SKENE SQUARE	
SKENE SQUARE	ROSEMOUNT TERRACE	LEFT
ROSEMOUNT TERRACE	WESTBURN ROAD	LEFT
WESTBURN ROAD	MOUNT STREET	LEFT
MOUNT STREET	ROSEMOUNT PLACE	RIGHT
ROSEMOUNT PLACE	ESSLEMONT AVENUE	LEFT
ESSLEMONT AVENUE	SKENE STREET	LEFT
SKENE STREET	ROSEMOUNT VIADUCT	LEFT
ROSEMOUNT VIADUCT	SOUTH MOUNT STREET	FOLLOW ON TO
SOUTH MOUNT STREET	ROSEMOUNT PLACE	LEFT
ROSEMOUNT PLACE	BEECHGROVE TERRACE	STRAIGHT ON
BEECHGROVE TERRACE	FOUNTAINHALL ROAD	LEFT
FOUNTAINHALL ROAD	QUEENS CROSS	STRAIGHT ON - 2ND EXIT
QUEENS CROSS	ST SWITHIN STREET	
ST SWITHIN STREET	UNION GROVE	LEFT

UNION GROVE	HOLBURN STREET	LEFT
HOLBURN STREET	UNION STREET	RIGHT
UNION STREET	ROSE STREET	LEFT
ROSE STREET	SKENE STREET	LEFT
SKENE STREET	CARDEN PLACE	FOLLOW ON TO
CARDEN PLACE	ALBYN PLACE	LEFT
ALBYN PLACE	ALFORD PLACE	FOLLOW ON TO
ALFORD PLACE	HOLBURN STREET	RIGHT
HOLBURN STREET	HOLBURN ROUNDABOUT	STRAIGHT - 2ND EXIT
HOLBURN ROUNDABOUT	GREAT SOUTHERN ROAD	STRAIGHT - 2ND EXIT
GREAT SOUTHERN ROAD	WHINHILL ROUNDABOUT	RIGHT - 2ND EXIT
WHINHILL ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	DUTHIE PARK ROUNDABOUT	STRAIGHT - 2ND EXIT
DUTHIE PARK ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	KING GEORGE VI ROUNDABOUT	LEFT - 1ST EXIT
KING GEORGE VI ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	ABBOTSHALL ROUNDABOUT	LEFT - 1ST EXIT
ABBOTSHALL ROUNDABOUT	ABBOTSHALL ROAD	
ABBOTSHALL ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	DEPOT	LEFT

Silver route 9



SILVER ROUTE 9		
STREET	то	DIRECTION
WEST TULLOS DEPOT	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	ABBOTSWELL ROAD	LEFT
ABBOTSWELL ROAD	ABBOTSWELL ROUNDABOUT	RIGHT - 2ND EXIT
ABBOTSWELL ROUNDABOUT	WEST TULLOS ROAD	
WEST TULLOS ROAD	KING GEORGE VI ROUNDABOUT	STRAIGHT ON - 2ND EXIT
KING GEORGE VI ROUNDABOUT	GREAT SOUTHERN ROAD	
GREAT SOUTHERN ROAD	BRIDGE OF DEE ROUNDABOUT	RIGHT - 3RD EXIT
BRIDGE OF DEE ROUNDABOUT	STONEHAVEN ROAD	
STONEHAVEN ROAD	GARTHDEE ROUNDABOUT	STRAIGHT ON - 2ND EXIT
GARTHDEE ROUNDABOUT	SOUTH ANDERSON DRIVE	
SOUTH ANDERSON DRIVE	BROOMHIL ROUNDABOUT	RIGHT - 3RD EXIT
BROOMHIL ROUNDABOUT	BROOMHILL ROAD	
BROOMHILL ROAD	PITSTRUAN PLACE	LEFT
PITSTRUAN PLACE	GREAT WESTERN ROAD	LEFT
GREAT WESTERN ROAD	FOREST AVENUE	RIGHT
FOREST AVENUE	RENDEZVOUS ROUNDABOUT	LEFT
RENDEZVOUS ROUNDABOUT	CROMWELL ROAD	LEFT - 1ST EXIT
CROMWELL ROAD	SEAFIELD ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SEAFIELD ROUNDABOUT	SEAFIELD ROAD	STRAIGHT ON - 2ND EXIT
SEAFIELD ROAD	COUNTESSWELLS ROAD	STRAIGHT ON
COUNTESSWELLS ROAD	COUNTESSWELLS ROAD	FOLLOW ON TO
COUNTESSWELLS ROAD	COUNTESSWELLS ROAD	STRAIGHT ON
COUNTESSWELLS ROAD	SLOPEFIELD ROUNDABOUT	ROUND - 3RD EXIT
SLOPEFIELD ROUNDABOUT	COUNTESSWELLS ROAD	
COUNTESSWELLS ROAD	COUNTESSWELLS AVENUE	LEFT
COUNTESSWELLS AVENUE	COUNTESSWELLS AVENUE	TURN AROUND
COUNTESSWELLS AVENUE	COUNTESSWELLS ROAD	LEFT

COUNTESSWELLS ROAD	SPRINGFIELD ROAD	LEFT
SPRINGFIELD ROAD	QUEENS ROAD	LEFT
QUEENS ROAD	HAZELDENE ROAD	LEFT
HAZELDENE ROAD	CRAIGIEBUCKLER AVENUE	LEFT
CRAIGIEBUCKLER AVENUE	SPRINGFIELD ROAD	RIGHT
SPRINGFIELD ROAD	SPRINGFIELD ROAD	STRAIGHT ON
SPRINGFIELD ROAD	SPRINGFIELD ROAD	STRAIGHT ON
SPRINGFIELD ROAD	CRAIGTON ROAD	LEFT
CRAIGTON ROAD	GREAT WESTERN ROAD	RIGHT
GREAT WESTERN ROAD	ST JOHNS TERRACE	FOLLOW ON TO
ST JOHNS TERRACE	SPRINGFIELD ROAD	RIGHT
SPRINGFIELD ROAD	CRAIGTON ROAD	LEFT
CRAIGTON ROAD	AIRYHALL AVENUE	RIGHT
AIRYHALL AVENUE	COUNTESSWELLS ROAD	RIGHT
COUNTESSWELLS ROAD	COUNTESSWELLS ROAD	RIGHT
COUNTESSWELLS ROAD	SEAFIELD ROAD	FOLLOW ON TO
SEAFIELD ROAD	SEAFIELD ROUNDABOUT	STRAIGHT ON - 2ND EXIT
SEAFIELD ROUNDABOUT	CROMWELL ROAD	
CROMWELL ROAD	RENDEZVOUS ROUNDABOUT	STRAIGHT ON - 2ND EXIT
RENDEZVOUS ROUNDABOUT	UNION GROVE	STRAIGHT ON - 2ND EXIT
UNION GROVE	ASHLEY ROAD	RIGHT
ASHLEY ROAD	GREAT WESTERN ROAD	RIGHT
GREAT WESTERN ROAD	PITSTRUAN PLACE	LEFT
PITSTRUAN PLACE	BROOMHILL ROAD	LEFT
BROOMHILL ROAD	HOLBURN STREET	STRAIGHT ON - 2ND EXIT
HOLBURN STREET	HOLBURN ROUNDABOUT	RIGHT - 2ND EXIT
HOLBURN ROUNDABOUT	FONTHILL ROAD	RIGHT - 2ND EXIT
FONTHILL ROAD	BON ACCORD STREET	LEFT
BON ACCORD STREET	UNION STREET	RIGHT
UNION STREET	CROWN STREET	RIGHT
CROWN STREET	FERRYHILL ROAD	RIGHT
FERRYHILL ROAD	FONTHILL ROAD	FOLLOW ON TO
FONTHILL ROAD	WHINHILL ROAD	LEFT
WHINHILL ROAD	WHINHILL ROUNDABOUT	STRAIGHT ON - 1ST EXIT

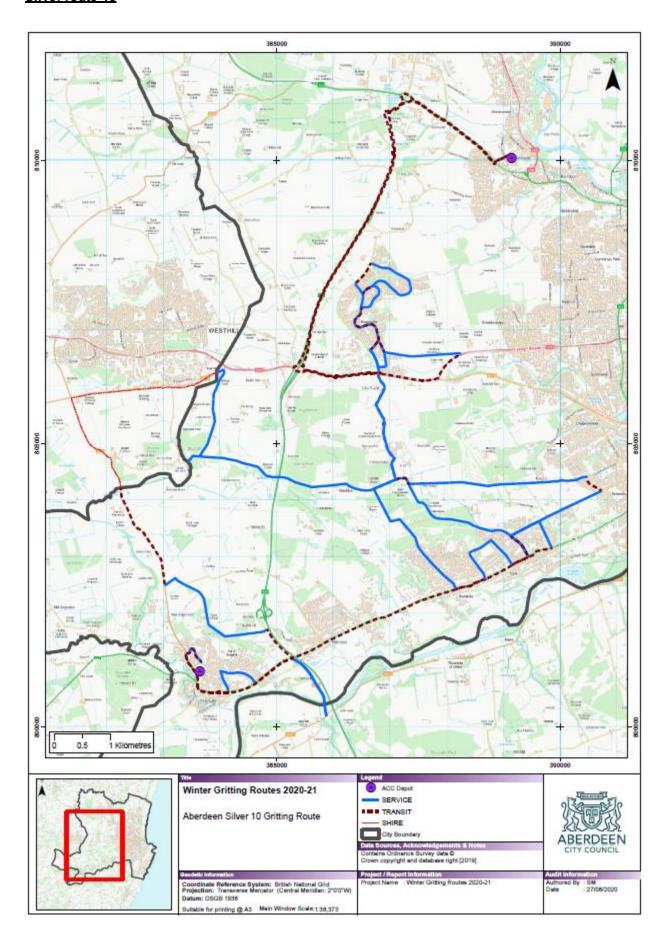
WHINHILL ROUNDABOUT	GREAT SOUTHERN ROAD	STRAIGHT ON - 1ST EXIT
GREAT SOUTHERN ROAD	MURRAY TERRACE	LEFT
MURRAY TERRACE	BRIGHT STREET	LEFT
BRIGHT STREET	BRUNSWICK PLACE	RIGHT
BRUNSWICK PLACE	POLMUIR ROAD	RIGHT
POLMUIR ROAD	MURRAY TERRACE	RIGHT
MURRAY TERRACE	BRIGHT STREET	RIGHT
BRIGHT STREET	BRUNSWICK PLACE	RIGHT
BRUNSWICK PLACE	POLMUIR ROAD	LEFT
POLMUIR ROAD	FERRYHILL ROAD	LEFT
FERRYHILL ROAD	BON ACCORD STREET	RIGHT
BON ACCORD STREET	UNION STREET	RIGHT
UNION STREET	UNION TERRACE	LEFT
UNION TERRACE	ROSEMOUNT VIADUCT	LEFT
ROSEMOUNT VIADUCT	SOUTH MOUNT STREET	FOLLOW ON TO
SOUTH MOUNT STREET	ROSEMOUNT PLACE	LEFT
ROSEMOUNT PLACE	ESSLEMONT AVENUE	LEFT
ESSLEMONT AVENUE	SKENE STREET	LEFT
SKENE STREET	SKENE STREET	FOLLOW ON TO
SKENE STREET	WOOLMANHILL ROUNDABOUT	ROUND - 4TH EXIT
WOOLMANHILL ROUNDABOUT	SKENE STREET	ROUND - 4TH EXIT
SKENE STREET	ROSEMOUNT VIADUCT	LEFT
ROSEMOUNT VIADUCT	SCHOOLHILL	FOLLOW ON TO
SCHOOLHILL	UPPERKIRKGATE	FOLLOW ON TO
UPPERKIRKGATE	GALLOWGATE	LEFT
GALLOWGATE	LITTLE JOHN STREET	RIGHT
LITTLE JOHN STREET	WEST NORTH STREET	RIGHT
WEST NORTH STREET	KING STREET	RIGHT
KING STREET	CASTLE STREET	FOLLOW ON TO
CASTLE STREET	UNION STREET	FOLLOW ON TO
UNION STREET	BROAD STREET	RIGHT
BROAD STREET	GALLOWGATE	FOLLOW ON TO
GALLOWGATE	MOUNTHOOLY ROUNDABOUT	STRAIGHT ON - 2ND EXIT
MOUNTHOOLY ROUNDABOUT	CAUSEWAYEND	7
CAUSEWAYEND	POWIS PLACE	FOLLOW ON TO
GEORGE STREET	JOHN STREET	LEFT
POWIS PLACE	GEORGE STREET	LEFT

JOHN STREET	LOCH STREET	RIGHT
LOCH STREET	BERRY STREET	LEFT - 1ST EXIT
BERRY STREET	GALLOWGATE	LEFT
GALLOWGATE	SPRING GARDEN	LEFT
SPRING GARDEN	GEORGE STREET	LEFT
GEORGE STREET	JOHN STREET	LEFT
JOHN STREET	LOCH STREET	LEFT
LOCH STREET	SPRING GARDEN	LEFT
SPRING GARDEN	GEORGE STREET	LEFT
GEORGE STREET	ST ANDREW STREET	RIGHT
ST ANDREW STREET	BLACKFRIARS STREET	STRAIGHT ON
BLACKFRIARS STREET	BLACKFRIARS STREET	FOLLOW ROUND TO
BLACKFRIARS STREET	SCHOOLHILL	LEFT
SCHOOLHILL	UPPERKIRKGATE	FOLLOW ON TO
UPPERKIRKGATE	GALLOWGATE	LEFT
GALLOWGATE	BERRY STREET	LEFT
BERRY STREET	LOCH STREET	STRAIGHT ON - 2ND EXIT
LOCH STREET	ST ANDREW STREET	LEFT
ST ANDREW STREET	CHARLOTTE STREET	RIGHT
CHARLOTTE STREET	JOHN STREET	LEFT
JOHN STREET	WOOLMANHILL ROUNDABOUT	ROUND - 4TH EXIT
WOOLMANHILL ROUNDABOUT	JOHN STREET	ROUND - 4TH EXIT
JOHN STREET	GEORGE STREET	RIGHT
GEORGE STREET	ST ANDREW STREET	RIGHT
ST ANDREW STREET	CHARLOTTE STREET	RIGHT
CHARLOTTE STREET	MABERLEY STREET	STRAIGHT ON
MABERLEY STREET	ROSEMOUNT ROUNDABOUT	ROUND - 4TH EXIT
ROSEMOUNT ROUNDABOUT	MABERLEY STREET	
MABERLEY STREET	SPRING GARDEN	STRAIGHT ON
SPRING GARDEN	GALLOWGATE	LEFT
GALLOWGATE	MOUNTHOOLY ROUNDABOUT	RIGHT - 3RD EXIT
MOUNTHOOLY ROUNDABOUT	MOUNTHOOLY	
MOUNTHOOLY	KINGS CRESCENT	LEFT
KINGS CRESCENT	SPITAL	FOLLOW ON TO
SPITAL	COLLEGE STREET	FOLLOW ON TO
COLLEGE STREET	HIGH STREET	FOLLOW ON TO

STREET	то	DIRECTION
HIGH STREET	ST MACHAR DRIVE	LEFT
ST MACHAR DRIVE	BEDFORD ROAD	LEFT
BEDFORD ROAD	POWIS TERRACE	RIGHT
POWIS TERRACE	GREAT NORTHERN ROAD	FOLLOW ON TO
GREAT NORTHERN ROAD	KITTYBREWSTER ROUNDABOUT	RIGHT 4TH EXIT
KITTYBREWSTER ROUNDABOUT	ST MACHAR DRIVE	
ST MACHAR DRIVE	SEATON ROUNDABOUT	LEFT - 1ST EXIT
SEATON ROUNDABOUT	KING STREET	
KING STREET	DON STREET	LEFT
DON STREET	HILLHEAD CAMPUS BUS TURN POINT	LEFT
HILLHEAD CAMPUS BUS TURN POINT	DON STREET	TURN AT TURN POINT
DON STREET	KING STREET	RIGHT
KING STREET	SEATON ROUNDABOUT	LEFT - 1ST EXIT
SEATON ROUNDABOUT	SCHOOL ROAD	
SCHOOL ROAD	GOLF ROAD	FOLLOW RIGHT
GOLF ROAD	PARK ROAD	FOLLOW ON TO
PARK ROAD	PARK STREET	FOLLOW ON TO
PARK STREET	BEACH BOULEVARD ROUNDABOUT	LEFT - 1ST EXIT
BEACH BOULEVARD ROUNDABOUT	BEACH BOULEVARD	
BEACH BOULEVARD	LINKS ROAD	LEFT
LINKS ROAD	CONSTITUTION STREET	LEFT
CONSTITUTION STREET	PARK STREET	LEFT
PARK STREET	BEACH BOULEVARD ROUNDABOUT	LEFT - 1ST EXIT
BEACH BOULEVARD ROUNDABOUT	BEACH BOULEVARD	
BEACH BOULEVARD	LINKS ROAD	LEFT
LINKS RIOAD	URQUHART ROAD	LEFT
URQUHART ROAD	PARK ROAD	LEFT
PARK ROAD	PARK STREET	FOLLOW ON TO
PARK STREET	BEACH BOULEVARD ROUNDABOUT	LEFT - 1ST EXIT
BEACH BOULEVARD ROUNDABOUT	BEACH BOULEVARD	
BEACH BOULEVARD	ESPLANADE	STRAIGHT ON - 2ND EXIT
ESPLANADE	KING STREET	RIGHT
KING STREET	ELLON ROAD	FOLLOW ON TO
ELLON ROAD	GORDON BARRACKS ROUNDABOUT	ROUND - 4TH EXIT

GORDON BARRACKS ROUNDABOUT	ELLON ROAD	
ELLON ROAD	KING STREET	FOLLOW ON TO
KING STREET	ESPLANADE	LEFT
ESPLANADE	BEACH BOULEVARD	STRAIGHT ON - 1ST EXIT
BEACH BOULEVARD	LINKS ROAD	LEFT
LINKS ROAD	QUEENS LINKS ROUNDABOUT	LEFT - 2ND EXIT
QUEENS LINKS ROUNDABOUT	LINKS ROAD	
LINKS ROAD	ESPLANADE ROUNDABOUT	ROUND - 3RD EXIT
ESPLANADE ROUNDABOUT	LINKS ROAD	
LINKS ROAD	QUEENS LINKS ROUNDABOUT	LEFT - 1ST EXIT
QUEENS LINKS ROUNDABOUT	WELLINGTON STREET	
WELLINGTON STREET	YORK STREET	LEFT
YORK STREET	ESPLANADE	LEFT
ESPLANADE	LINKS ROAD	LEFT - 1ST EXIT
LINKS ROAD	QUEENS LINKS ROUNDABOUT	LEFT - 1ST EXIT
QUEENS LINKS ROUNDABOUT	WELLINGTON STREET	
WELLINGTON STREET	ST CLEMENT STREET	LEFT
ST CLEMENT STREET	CHURCH STREET	RIGHT
CHURCH STREET	WATERLOO QUAY	LEFT
WATERLOO QUAY	WELLINGTON STREET	LEFT
WELLINGTON STREET	ST CLEMENT STREET	LEFT
ST CLEMENT STREET	MILLAR STREET	RIGHT
MILLAR STREET	CASTLE TERRACE	FOLLOW ON TO
CASTLE TERRACE	COMMERCE STREET	LEFT
COMMERCE STREET	REGENT QUAY	RIGHT
REGENT QUAY	VIRGINIA STREET	LEFT
VIRGINIA STREET	MARKET STREET	LEFT
MARKET STREET	NORTH ESPLANADE WEST	RIGHT
NORTH ESPLANADE WEST	QUEEN ELIZABETH BRIDGE ROUNDABOUT	LEFT - 1ST EXIT
QUEEN ELIZABETH BRIDGE ROUNDABOUT	QUEEN ELIZABETH BRIDGE	
QUEEN ELIZABETH BRIDGE	CRAIGINCHES ROUNDABOUT	RIGHT - 3RD EXIT
CRAIGINCHES ROUNDABOUT	WELLINGTON ROAD	1
WELLINGTON ROAD	CRAIGSHAW DRIVE	RIGHT
CRAIGSHAW DRIVE	WEST TULLOS DEPOT	RIGHT

Silver route 10



SILVER 10		
FROM	ТО	DIRECTION
Bucksburn depot	Bankhead avenue	Left
Bankhead avenue	Sclattie roundabout	Right - 2nd exit
Sclattie roundabout	Inverurie road	
Inverurie road	Awpr slip road	Left - 1st exit
Awpr slip road	Awpr south	Follow on to
Awpr south	Awpr south kingswells junction	Left - 1st exit
Awpr south kingswells junction	A944	
A944	Kingswells roundabout	Straight on - 2nd exit
Kingswells roundabout	Skene road	- -
Skene road	Middencraig roundabout	Left - 1st exit
Middencraig roundabout	Lang stracht	
Lang stracht	Lang stracht (bus gate)	Left
Lang stracht (bus gate)	Fairley road	Right
Fairley road	Kingswood drive	Right
Kingswood drive	Kingswells crescent	Right
Kingswells crescent	Chapel of stoneywood - fairley road	Left
Chapel of stoneywood - fairley road	Kingswood drive	Left
Kingswood drive	Kingswells crescent	Left
Kingswells crescent	Kingswells avenue	Right
Kingswells avenue	Kingswood drive	Left
Kingswood drive	Kingswood drive	Follow on to
Kingswood drive	Chapel of stoneywood - fairley road	Left
Chapel of stoneywood - fairley road	Fairley road	Left
Fairley road	Fairley road	Left
Fairley road	Fairley road	Follow on to
FROM	то	DIRECTION
Fairley road	Kingswood drive	Left
Kingswood drive	Chapel of stoneywood - fairley	Left
	road	0. 11.
Chapel of stoneywood - fairley road	Kingswells roundabout	Straight on - 2nd exit
Kingswells roundabout	Cults - kingshill road	
Cults - kingshill road	Blacktop road	Right
Blacktop road	Bishopdams road	Turn around
Bishopdams road	B9119 to city limit	Left
B9119 to city limit	B9119	Straight on
B9119	Prospect roundabout	Straight on - 2nd exit
Prospect roundabout	B9119	
B9119	TAQA roundabout	Straight on - 2nd exit
TAQA roundabout	B9119	
B9119	Total roundabout	Straight on - 2nd exit
Total roundabout	B9119	
B9119	Carnie roundabout	Left - 1st exit
Carnie roundabout	Malcolm road to city limit	
Malcolm road to city limit	Malcolm road	Follow on

Malcolm road	Contlaw road	Left
Contlaw road	Culter house road	Follow on to
Culter house road	Awpr access road	Right
Awpr access road	North deeside road	Right
North deeside road	Malcolm road	Right
Malcolm road	Johnston gardens	Right
Johnston gardens	Johnston gardens	Turn at bus terminus
Johnston gardens	Malcolm road	Right
Malcolm road	North deeside road	Left
FROM	то	DIRECTION
North deeside road	School road	Left
School road	Coronation road	Right
Coronation road	North deeside road	Left
North deeside road	Milltimber brae	Right
Milltimber brae	Milltimber brae	Turn
Milltimber brae	North deeside road	Right
North deeside road	Kirk brae	Left
Kirk brae	Blacktop road	Straight on
Blacktop road	Baillieswells road	Left
Baillieswells road	North deeside road	Left
North deeside road	Quarry road	Left
Quarry road	Hillview crescent	Right
Hillview crescent	Cults avenue	Right
Cults avenue	North deeside road	Left
North deeside road	Kirk brae	Left
Kirk brae	Friarsfield road	Right
Friarsfield road	Abbotshall road	Right
Abbotshall road	North deeside road	Right
North deeside road	Kirk brae	Right
Kirk brae	Friarsfield road	Right
Friarsfield road	Craigton road	Follow on to
Craigton road	Airyhall avenue	Left
Airyhall avenue	Countesswells road	Left
Countesswells road	Cults - kingshill road	Right
Cults - kingshill road	Cults - kingshill road	Left - 1st exit
Cults - kingshill road	A944	
A944	Awpr south kingswells junction	Right - 5th exit
Awpr south kingswells junction	Awpr north	
Awpr north	Awpr north	Follow on to
Awpr north	A96 connector road	Right
A96 connector road	Airport roundabout	Right - 3rd exit
Airport roundabout	A96	
A96	Sclattie roundabout	Left - 1st exit
Sclattie roundabout	Bankhead avenue	
Bankhead avenue	Bucksburn depot	Right

(c) SNOW CLEARANCE AREAS

After priority routes have been cleared, when lying snow persists this will be tackled on an area basis in accordance with the following areas.

1.	BUCKSBURN	West of Auchmill Rd Du	West of Auchmill Rd Dual Carriageway Section				
		South of Bankhead Roa	d Railway Bridge and Greenburn Drive				
2.	DYCE	North of Bankhead Road	d Railway Bridge and Greenburn Drive				
3.	BRIDGE OF DON	North of Bridge of Don,	and North of Brig o' Balgownie				
4.	KINGSWELLS						
		AREAS BOUNDED BY	_				
5.	NORTHFIELD	NORTH	Heathryfold Housing Scheme				
		SOUTH	Provost Fraser Drive				
		EAST	North Anderson Drive				
		WEST	Howes Road				
6.	WOODSIDE	NORTH	River Don				
		SOUTH	Rosehill Drive / Back Hilton Road				
		EAST	Great Northern Road / Powis Terrace				
		WEST	North Anderson Drive				
7.	SEATON / TILLYDRONE	NORTH	River Don				
		SOUTH	St Machar Drive - School Road				
		EAST	Beach Esplanade				
		WEST	Donbank Terrace, Don Street / Great Northern Road				
8.	MASTRICK	NORTH	Provost Fraser Drive				
		SOUTH	Lang Stracht				

		EAST	North Anderson Drive
		WEST	Sheddocksley Housing Scheme
9.	CORNHILL / CAIRNCRY	NORTH	Rosehill Drive / Back Hilton Road
		SOUTH	Westburn Road / Hutcheon Street
		EAST	George Street / Powis Terrace
		WEST	North Anderson Drive
10.	OLD ABERDEEN	NORTH	St Machar Drive / School Road
		SOUTH	Hutcheon Street / Nelson Street / Urquhart Road
		EAST	Beach Esplanade
		WEST	Powis Terrace/George Street
11.	ST. CLEMENTS	NORTH	Nelson Street / Urquhart Road / Hutcheon Street
		SOUTH	Regent Quay / Waterloo Quay
		EAST	Beach Esplanade
		WEST	Mount Street / South Mount Street / Rosemount Viaduct / Schoolhill / St
12.	WOODEND / SUMMERHILL	NORTH	Lang Stracht
		SOUTH	Skene Road/Queen's Road
		EAST	Anderson Drive
		WEST	A944 Lang Stracht
13.	MIDSTOCKET / KINS GATE	NORTH	Westburn Road
		SOUTH	Queen's Road / Carden Place / Skene Street Mount Street / South Mount Street
		WEST	Anderson Drive
1.4	CENTRAL AREA		Skene Street/Schoolhill
14.	CENTRAL AREA	NORTH	
		SOUTH	Willowbank Road / Springbank Terrace/Guild Street St Nicholas Street/Market Street
		WEST	Rose Street/Holburn Street
15.	HAZLEHEAD / BRAESIDE	NORTH	Skene Road / Queen's Road
		SOUTH	North Deeside Road / Great Western Road
		EAST	Anderson Drive
		WEST	Woodlands / Craigton Road
16.	HOLBURN / BROOMHILL	NORTH	Queen's Road / Carden Place
		SOUTH	Holburn Street

		EAST	Rose Street
		WEST	South Anderson Drive
17.	FERRYHILL	NORTH	Willowbank Road / Springbank Terrace / Guild Street
		SOUTH	Riverside Drive / North Esplanade West
		EAST	Market Street
		WEST	Holburn Street
18.	TORRY	NORTH	South Esplanade West / East / Greyhope Road
		SOUTH	Tullos Industrial Estate
		EAST	Greyhope Road / Coast Road
		WEST	Wellington Road
19.	MANNOFIELD / GARTHDEE	NORTH	North Deeside Road/Great Western Road
		SOUTH	Garthdee Road
		EAST	South Anderson Drive
		WEST	Pitfodels Station Road
20.	KINCORTH	NORTH	South Deeside Road / Great Southern Road
		SOUTH	Wellington Road (Charleston)
		EAST	Wellington Road
		WEST	City Boundary
21.	COVE	NORTH	Tullos Industrial Estate
		SOUTH	City Boundary
		EAST	Sea
		WEST	Wellington Road
22.	CULTS/BIELDSIDE	NORTH	Countesswells Road
		SOUTH	River Dee
		EAST	Craigton Road / Pitfodels Station Road
		WEST	Hillhead Road
23.	MILLTIMBER	NORTH	A944
		SOUTH	River Dee
		EAST	Hillhead Road
		WEST	Contlaw Road
24.	CULTER	NORTH	City Boundary
		SOUTH	River Dee
		EAST	Contlaw Road
		WEST	Anguston Road
			=

(e) **FOOTWAY ROUTES**

Location of Plant and Resources (Footways)

<u>Area</u>		<u>Plant</u>	<u>Depot</u>
1.	Bucksburn	1 tractor	Bucksburn
2.	Dyce	Shared area 1	
3.	Bridge of Don	3 tractors	Bucksburn
4.	Kingswells	1 tractor	Bucksburn
5.	Northfield	2 tractors	Mastrick
6.	Woodside	Shared area 13	
7.	Seaton / Tilllydrone	1 tractor	Bucksburn
8.	Mastrick	2 tractors	Mastrick
9.	Cornhill / Cairncry	1 tractor	Tullos
10.	Old Aberdeen	Shared Area 7	
11	St Clements	Shared Area 14	
12	Woodend / Summerhill	1 tractor	Tullos
13	Midstocket / Kings Gate	1 tractor	Tullos
14	Central Area	2 tractors	Tullos
15	Hazelhead / Braeside	Shared area 19	
16	Holburn / Broomhill	Shared Area 14	
17	Ferryhill	Shared Area 20	
18	Torry	Shared Area 21	
19	Mannofield / Garthdee	1 tractor	Tullos
20	Kincorth	1 tractor	Tullos
21	Cove	1 tractor	Tullos
22	Cults / Bieldside	1 tractor	Tullos
23	Milltimber	1 tractor	Tullos
24	Culter	1 tractor	Tullos

Priorities in Treatment

When working in above locations, priority to be given to those areas, as part of an area response steep gradients, and to City Centre Routes 1 and 2, in particular.

The footways within Areas 1 to 24 will be treated on an area by area basis. However, within each specific area, the footways indicated in the following footway sections will be given priority within that area.

CITY CENTRE FOOTWAY PRIORITY 1 GRITTING ROUTE 1

Commence Bridge of Dee Roundabout at Holburn Street

Holburn Street East F/P to Riverside Terrace

Drive to Holburn Street at Fonthill Road

Holburn Street East F/P to Union Street

Union Street South F/P to Bridge Street

Bridge Street West F/P to Guild Street

Bridge Street East F/P to Union Street

Union Street South F/P to Market Street

Market Street West F/P to North Esplanade West

Market Street East F/P to Union Street

Union Street South F/P to Castle Street

Castle Street South F/P to King Street

King Street East F/P to Nelson Street

King Street West F/P to Castle Street

Castle Street North F/P to Broad Street

Broad Street East F/P to Schoolhill

Schoolhill North F/P to Rosemount Viaduct

Rosemount Viaduct North F/P to South Mount Street

South Mount Street East F/P to Rosemount Place

Rosemount Place North F/P to Argyll Place

Rosemount Place South F/P to South Mount Street

South Mount Street West F/P to Rosemount Viaduct

Rosemount Viaduct South F/P to Union Terrace

Union Terrace West F/P to Union Street

Union Terrace East F/P to Schoolhill

Schoolhill South F/P to Broad Street

Broad Street West F/P to Union Street

Union Street North F/P to Holburn Street

Holburn Street West F/P to Union Grove

Union Grove North F/P to Forest Avenue

Union Grove South F/P to Holburn Street

Holburn Street West F/P to Nellfield Place

Drive to Holburn Street/Riverside Terrace

Holburn Street West F/P to Bridge of Dee Roundabout

CITY CENTRE FOOTWAY PRIORITY 1 GRITTING ROUTE 2

Drive Rose Street

Rose Street West F/P to Thistle Street

Thistle Street South F/P to Albert Street

Thistle Street North F/P to Rose Street

Rose Street West F/P to Esslemont Avenue

Esslemont Avenue West F/P to Rosemount Place

Esslemont Avenue East F/P to Rose Street

Rose Street East F/P to Union Street

Drive to Chapel Street/Union Street Junction

Chapel Street West F/P to Huntly Street

Huntly Street South F/P to Rose Street

Drive to Huntly Street/Chapel Street Junction

Chapel Street East F/P to Union Street

Drive to Union Street/Bon Accord Street Junction

Bon Accord Street West F/P to Fonthill Road

Bon Accord East F/P to Union Street

Drive to Union Street/Crown Street Junction

Crown Street West F/P to Ferryhill Road

Ferryhill Road North F/P to Bon Accord Street

Ferryhill Road South F/P to Crown Street

Crown Street East F/P to Union Street

Drive to Windmill Brae North F/P to Bath Street

Windmill Brae South F/P to Crown Street

Drive to Bridge Street/Link Brae Junction

Link Brae South F/P

Drive to Guild Street/Bridge Street Junction

Guild Street North F/P to Market Street

Trinity Quay North F/P to Marischal Street

Drive to West North Street Littlejohn Street Junction

Littlejohn Street South F/P

Drive to Gallowgate Upper Kirkgate Junction

Gallowgate West F/P to Berry Street

Berry Street South F/P to Loch Street

Loch Street South F/P to George Street

George Street West F/P to John Street

John Street South F/P to North St Andrew Street

John Street North F/P to George Street

George Street West F/P to Hutcheon Street

George Street East F/P to Loch Street

Loch Street North F/P to Berry Street

Berry Street North F/P to Gallowgate

Gallowgate East F/P to Littlejohn Street

Littlejohn Street North F/P

AREA	PRIORITY 2 FOOTWAYS
1. BUCKSBURN	Kepplehills Road Sclattie Park Sclattie Circle Hopetoun Grange Howes View Bankhead Road Oldmeldrum Road
2. DYCE	Victoria Street (Riverview Dr to Gladstone Pl.) Dyce Shopping Centre
3. BRIDGE OF DON	Newburgh Road Jesmond Drive (Middleton Rd to Whitestripes Way) Braehead Way Bodachra Road Harehill Road Cairnfold Road Danestone Terrace Scotstown Gardens Ellon Road (Bridge of Don to Broadfold Road)
5. NORTHFIELD	Lintmill Terrace Quarry Road (at shops) Byron Avenue (at shops) Moir Green (at shops)
7. SEATON / TILLYDRONE	King Street (School Road to High Flats) School Road Tillydrone Avenue Tillydrone Terrace Wingate Road Dempsey Terrace Conningham Gardens
8. MASTRICK	Greenfern Road (at shops)
9. CORNHILL / CAIRNCRY	Cornhill Road (Ashgrove Rd to Westburn Rd) Berryden Road Rosehill Drive (at shops)
11. ST. CLEMENTS	Boulevard (Roundabout to Railway Bridge)
12. WOODEND /	Eday Drive Eday Road (Eday Dr to Stronsay Dr)

SUMMERHILL	Summerhill Shopping Centre
15. HAZLEHEAD / BRAESIDE 17. FERRYHILL	Countesswells Road (at shops) Springfield Road (Countesswells to Airyhall) Great Western Road (Morningside Rd to South Anderson Drive) South Crown Street
17. FERRIFILL	Albury Place
18. TORRY	Menzies Road (at shops corner of Grampian Place and Victoria Rd end) Grampian Place (Menzies Rd to Walker Rd) Victoria Road (Menzies Rd to Mansfield Rd) Mansfield Road Glenbervie Road Abbey Place Rockall Road Ladywell Place Brimmond Place Battock Place Oscar Place
19. MANNOFIELD / GARTHDEE	Morrison Drive Ivanhoe Walk Talisman Walk Deeside Gardens Deeside Drive Deeside Crescent
22. CULTS / BIELDSIDE	Abbotshall Road Kirk Brae North Deeside Road (South Avenue to Cults Hotel) Cults Avenue Hillview Crescent Quarry Road Cairn Road Baillieswells Road North Deeside Road (at Bieldside Shops)
23. MILLTIMBER	Contlaw Brae Monearn Gardens
24. CULTER	Malcolm Road North Deeside Road (Malcolm Rd to Cairn Rd) School Road Towerview Road Coronation Road Cairn Road

(f) STEPS/RAMPS FOR SPECIAL ATTENTION

Treatment of Priority One Steps/Ramps will be done at the start of continual action.

Priority One

Commerce Street to Castlehill Steps/Ramp Crown Terrace to Bridge Street Steps Green to Union Street Steps Mounthooly Steps Skene Terrace to North Silver Street Steps Virginia Street to Castle Terrace Steps Virginia Street to Marischal Street Steps Union Street - Correction Wynd Steps

Priority Two

Auchmill Road Steps

Bankhead Road to A947 Steps/Ramp

Beach Boulevard to Castlehill Terrace Steps
Beach Boulevard to Hanover Street Steps
Belmont Street – Denburn Road (Patagonian Court) Steps
Gilbert Road Underpass (both sides) Ramps

Great Northern Road to Deer Road Steps / Ramps
Greenburn Underpass (both sides) Steps/Ramps

Ivanhoe Walk Steps

Kepplehills Road Steps at Shops

Mansfield Road Steps
Morningside Road to Deeside Gardens Steps

St Johns Road to A947 Steps/Ramp Sclattie Park 3 Sets Steps

Talisman Walk Steps

(g) CYCLEWAYS

Cycleways will be treated in line with Priority 2 Footways

The Westhill path (from City boundary to Hazlehead Roundabout)

The Shell path

Cycle paths along Stoneywood Road (section of National Cycle Network)

Cove Road to Duthie Park where cycleway is part of a shared footpath

Wellheads Drive cycle path where cycleway is part of a shared footpath

Cycle paths along Wellington Road where cycleway is part of a shared footpath

OPERATIONAL PLAN APPENDIX D – STOCK AND TREATMENT GUIDANCE

(a) Community Grit/Salt Bins.

Small quantities of salt (for use on the public roads and footpaths) are available free of charge to members of the public, subject to them supplying a suitable container and shovel, from the community grit bins sited at the following location.

COMMUNITY	ADDRESS OF COMMUNITY	DETAILED LOCATION
	BIN LOCATION	
Bridge of Don	Park and Ride	In south car park.
City Centre -	Near St John's Place, junction.	Next to recycling point.
Crown Terrace		
City Centre - Justice Street	Near Recycling Point	Next to recycling point.
City Centre - Kidd Street	Kidd Street, Aberdeen, AB10 1TB	Green Space to rear of Gilcomston Land Flat Block
Countesswells Road	Counteswells Road, Aberdeen, AB15 7RE	Setted surface opposite property number 210
Cove	Loirston Close	Public House car park
Craibstone	Park and Ride	At entrance to south carpark
Danestone	Laurel Drive, AB22 8HB	Tesco car park – next to recycling facilities
Dyce	Netherview Avenue Dyce, Aberdeen, AB217NG	Asda car park – Next to recycling facilities
Garthdee	Garthdee Road, Aberdeen, AB107QA	Asda car park – Next to recycling facilities
Kingswells	Park and Ride	Next to recycling point and bins
Mastrick	Fernhill Drive, AB16 6QT	Near junction with Fernhill Road
Northfield	Byron Square, Aberdeen, AB16 7LL	Byron Square next to bins in carpark
Peterculter	Johnston Gardens North. Peterculter, AB14 0LD	At turning area near number 129
Regent Walk	Near Regent Court	Regent court carpark, near entrance
Rosemount	65 Leadside road, Aberdeen, AB25 1RX	Outside 65 Leadside road next to bins
Seaton Drive	Near King Street Junction	Carpark on entry to Seaton Walk
Tillydrone	Pennan Road, Aberdeen, AB24 2UD	Opposite family centre / library
Torry	Girdleness Road	Layby opposite 223 Girdleness Road
Woodside	Anderson Road, Aberdeen, AB24 4NS	At the top of Anderson Road, next to Stewart Park

(b) - Decision Making Treatment Matrix - Precautionary Treatments

WINTER TREATMENT SPREAD RATE MATRIX SCOTS WINTER SERVICE SUBGROUP ADVICE

		Variation of Well Maintained Highways Appendix H - September 2013					
		Column C	Column D	Column G	Column H	Column K	Column L
Type T	Precautionary Treatment for frost / ice	Poor Cover medium Traffic Normal Loss	Poor Cover medium Traffic High Loss	Fair Cover medium Traffic Normal Loss	Fair Cover medium Traffic High Loss	Good Cover medium Traffic Normal Loss	Good Cover medium Traffic High Loss
Dry Salt	RST at or above -2 Degrees and damproad	<mark>10</mark> (8)	10(8)	10(8)	10(8)	10(8)	10(8)
Pre-wet Salt	conditions Table H9 of Code - where the road surface is dry	10(8)	10(8)	10(8)	10(8)	10(8)	10(8)
Treated Salt	no actionis needed even when conditions are below zero	10(7)	10(7)	10(7)	10(7)	10(7)	10(7)
Dry Salt		<mark>15(</mark> 13)	20(16)	10 or 15(11)	15(13)	10(8)	10
Pre-wet Salt	RST at or above -2 Degrees and wet road conditions	15(12)	15(14)	10(10)	15(12)	10(8)	10(9)
Treated Salt		10(10)	10 or 15(11)	10(8)	10(10)	10(7)	10(7)
Dry Salt	RST below -2 deg C and above -5 deg C and damp road conditions	15 or 20(17)	20	10 or 15(14)	20(17)	10 or 15(11)	15(13)
Pre-wet Salt		15 or 20(16)	20(18)	15(14)	15(16)	15(11)	15(12)
Treated Salt		15(12)	15(14)	10 or 15 (11)	15(12)	10(8)	10(10)
Dry Salt	RST below -2 deg C and above -5 deg C and wet road conditions	1 x 20 then monitor & treat as required(2x1 7)	1 x 20 then monitor & treat as requ'ed(2x20)	1 x 20 then monitor & treat as requ'ed(2x28)	1 x 20 thenmonitor&treatas requ'ed(2x17)	20(20)	1 x 20 then monitor & treat as required(25)

Pre-wet Salt		1 x 20 then monitor & treat as required(2x1 6)	1 x 20 then monitor & treat as requ'ed(2x18)	1 x 20 then monitor & treat as requ'ed (27)	1 x 20 then monitor & treat as requ'ed(31)	1 x 20 then monitor & treat as requ'ed(21	1 x 20 then monitor & treat as required(24)
Treated Salt		1 x 20 then monitor & treat as required(24)	1 x 20 then monitor & treat as requ'ed(28)	1 x 20 then monitor & treat as requ'ed (21)	1 x 20 then monitor & treat as requ'ed(24)	1 x 20 then monitor & treat as requ'ed(16	1 x 20 then monitor & treat as required(19)
Dry Salt		1 x 20 then monitor & treat as required(2x1 6)	1 x 20 then monitor & treat as requ'ed(2x19)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 thenmonitor&treatas requ'ed(2x16)	20	1 x 20 then monitor & treat as required(24)
Pre-wet Salt	RST at or below -5 deg C and above -10 deg C and damp road conditions	1 x 20 then monitor & treat as required(2x1 6)	1 x 20 then monitor & treat as requ'ed(2x18)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 then monitor & treat as requ'ed(31)	1 x 20 then monitor & treat as requ'ed(21	1 x 20 then monitor & treat as required(24)
Treated Salt	conditions	1 x 20 then monitor & treat as required(23)	1 x 20 then monitor & treat as requ'ed(27)	1 x 20 then monitor & treat as requ'ed (20)	1 x 20 then monitor & treat as requ'ed(23)	1 x 20 then monitor & treat as requ'ed(15	1 x 20 then monitor & treat as required(18)
Dry Salt		1 x 20 then monitor & treat as required(32)	1 x 20 then monitor & treat as requ'ed(2x39)	1 x 20 then monitor & treat as requ'ed(2x27)	1 x 20 thenmonitor&treatas requ'ed(2x32)	1 x 20 thenmonit or&treatas requ'ed(2x 20)	1 x 20 then monitor & treat as required(2x24)
Pre-wet Salt	RST below -5 deg C and above -10 deg C and wetroad conditions	1 x 20* then monitor & treat as required(2x3 1)	1 x 20 then monitor & treat as requ'ed(2x36)	1 x 20 then monitor & treat as requ'ed2x(27)	1 x 20 then monitor & treat as requ'ed(2x31)	1 x 20 then monitor & treat as requ'ed(2x 21)	1 x 20 then monitor & treat as requ'ed(2x24)
Treated Salt		1 x 20 then monitor & treat as req'red(2x23	1 x 20 then monitor & treat as requ'ed(2x27)	1 x 20 then monitor & treat as requ'ed(2x20)	1 x 20 then monitor & treat as requ'ed(2x23)	1 x 20 then monitor & treat as requ'ed(30	1 x 20 then monitor & treat as required(2x18)

Kev:

() = Appendix H recommendations

- a. The treatment matrix assumes no residual de-icing material on the carriageway. The presence of residual de-icing material will be taken into account and spread rates adjusted in preparing proposed action plans. Evidence of residual salt should be based on IPS sensor/camera feedback or visual inspection.
- b. Particular attention should be given to possibility of water running across carriageways and other surfaces e.g., off adjacent fields after heavy rains, washing off previously deposited salt. Such locations should be closely monitored and may require further treatments
- c. If rain is forecast to fall on frozen surfaces then treatment should take place on the dry roads prior to the commencement of the rain and again during the rainfall until

- temperatures are above 0°C, subject to being completed within the council's hours of cover.
- d. Salt is less effective when road temperatures are below -5° C. However salt and grit may be used on sheet ice or hard-packed snow when temperatures are exceptionally low. Where hard packed snow and ice have formed and cannot be removed by ploughing, a salt sand mix can be used in successive treatments at a spread rate of 20-40 g/sqm. This aids vehicle traction and acts to break up the snow and ice.

(c) Precautionary Treatment Matrix for Snow Conditions

Salt Type	Precautionary Treatments Before Snow or Freezing rain	Light or Medium Traffic	Heavy Traffic	
Dry Salt	Light Chau	20g/m ²	20g/m ²	
Pre-wet Salt	Light Snow Forecast <10mm	20g/m ²	20g/m ²	
Treated Salt	Forecast < rollilli	15g/m ²	15g/m ²	
Dry Salt	Moderate/Heavy	20g/m ²	40g/m ²	
Pre-wet Salt	Snow Forecast	20g/m ²	40g/m ²	
Treated Salt	>10mm	15g/m ²	30g/m ²	
Dry Salt	Francisco rain	1 x20g/m ² then monitor		
Pre-wet Salt	Freezing rain Forecast	1 x20g/m ² then monitor		
Treated Salt	FUIECASI	1 x15g/m ² then monitor		

(d) Reactive Treatment Matrix for Ice and Compacted Snow Conditions

Non – Precautionary/Reactive Treatments of Snow/Ice						
During snowfall	Salt - 20g/m ²					
Thin layers of Ice < 1mm RST above -5C	Salt - 20g/m ²					
Thin layers of Ice < 1mm RST below -5C	Salt - 20g/m ²	Consider using Mixtures – 20-40g of Sand/Salt				
Thin layers of compacted snow/ice up to 5mm thickness.	Mixtures – 20-40g of sand/salt					
Layer of compacted snow/ice greater than 5mm thickness.	Mixtures – 20-40g of sand/salt	Consider using sand only.				

(e) Appropriate Salt and Grit Stock Levels

Salt stocks

Winter Period 1st October to 30th March

Core Winter Period 1st
November to 1 March Days Resilience (Overall Winter
Period) 9 days
Days Resilience (Core Winter Period) 15 days

	Non-Winter stock		Non-Core Winter Period		Core Winter Period	
Depot	Min	Max	Min	Max	Min	Max
Tonnage						
Bucksburn	2000	4100	3250	10500	3,750	10750
Tullos	0	250	400	1000	500	1000
Total	2000	4350	3650	11500	4250	11750

Application of resilience measures to be considered at the following stock levels.

All depots	Non-Winter stock	Non-Core Winter Period	Core Winter Period
Tonnes	N/A	2690	4485

The service is to have access to 200 tonnes of grit during the core winter period.

Mutual aid in salt supply and other aspects of winter service and contingency arrangements in advance, are in place through the Salt Cell Group. The 32 Scottish Councils are represented on this group through SCOTS, SOLACE and COSLA. Salt Cell is monitoring salt restock for winter 2020/21.

OPERATIONAL PLAN APPENDIX E – FLOODING GUIDANCE

Organisations and roles

A number of organisations are involved in managing the risk from flooding in Aberdeen City. The Flood Risk Management (Scotland) Act 2009 places a duty on them to work together to reduce the overall risk. The specific duties on each include.

Scottish Government

- Setting National Policy on Flood Risk Management and Flood Warning.
- Provision of resources to enable authorities to address flood risk.

SEPA – Scottish Environmental Protection Agency.

- SEPA is Scotland's national flood forecasting, flood warning and strategic flood risk management authority.
- SEPA provide advice and work with other organisations to ensure that a nationally consistent approach to flood risk management is adopted. They are also responsible for producing Scotland's Flood Risk Management Strategies.
- SEPA's website(external) contains detailed information on flooding including live flood updates, a frequently asked questions section which includes measures and products that householders would find useful in helping to protect their property from flooding.
- The flood warning system provided by SEPA in conjunction with the Met Office covers the whole of Scotland and is based on Flood Alerts, Flood Warnings and Severe Flood Warnings. Details are available on Floodline (external).
- SEPA also provides a comprehensive map of locations that may be affected by River, Coastal or Surface Water flooding. <u>Flood Map (external)</u>.

Scottish Water

 Scottish Water is responsible for dealing with the immediate impact of flooding from sewers. If a flood contains sewage or foul water from a sewer it should be reported to Scottish Water on:

0800 0778 778 or online at Scottish Water (external)

- In addition to maintaining the public sewer system Scottish Water maintains any public sections of drainage systems through which curtilage water from (roofs and paved surfaces) within a property discharge. The private sections of these systems are the responsibility of the property owner. Scottish Water manage the discharge of this water once it enters the public sewers.
- Working in partnership with the local authority and emergency services.
- Working with other bodies such as SEPA, local authorities and the emergency services during a flood event to alleviate any flooding from public sewers.
- Dealing with any flooding and repairing the resulting damage caused by burst water mains and sewers.
- Not responsible for private guttering within a property boundary, this is the responsibility of the property owner.

Police Scotland

- Co-ordinate the actions of all agencies involved during a **major** incident.
- Will control the scene at its outer limits by setting up cordon points and setting up a traffic management system in conjunction with the Local Authority.

- Responsible for the protection of life and coordinating evacuation of an area if required.
- Contact number 101 or in an emergency 999. Police Scotland (external).

Scottish Fire and Rescue Service

- The Scottish Fire and Rescue service has a duty to save lives in the event of serious flooding.
- Working locally with partner organisations and agencies to ensure effective wider consequence emergency response plans are developed for identified local risks.
- Fulfilling statutory duties in relation to the Civil Contingencies Act 2004 by contribution to the Grampian Local Resilience Partnership and North of Scotland Regional Resilience Partnership.
- Contact number 101 or in an emergency 999. <u>Scottish Fire and Rescue Service</u> (external).

Maritime and Coastguard Agency.

- Taking the lead role in dealing with incidents at sea and inland water.
- Minimising loss of life amongst seafarers and coastal users.
- Responding to maritime emergencies 24 hours a day.
- Responding to non-maritime incidents such as floods, searches or assisting in evacuating areas.
- Maritime and Coastguard Agency website (external).
- Contact phone number locally 020 3817 2001.
- Local Aberdeen Coastguard team <u>website (external)</u> phone number 01224 592334 in emergency call 999 and ask for Coastguard.

Met Office

- Produces weather forecasts to help the UK public make informed decisions about daytoday activities.
- Warns people of extreme weather to allow them to mitigate its impacts.
- · Provides forecasting services to SEPA.
- Not Aberdeen City Council's winter forecast provider.
- Met office website (external).

Transport Scotland

- Gully (gutter and drain covers) maintenance for trunk roads.
- Trunk road closures.
- Transport Scotland

Landowners

- Have a responsibility for the maintenance of watercourses and other water bodies including repairs and clearing.
- Have a responsibility for private flood defenses on their land and maintenance of private drainage systems.

- Responsible for protecting their property from flooding.
- Responsible for acquiring home contents and buildings insurance. Advice regarding flooding insurance is available at FloodRE (external)
- Responsible for taking action to prepare for flooding
- Responsible for maintaining private drainage, including gullies and drains on shared private access roads and courtyards
- Property owners can register with SEPA to have local flood warnings sent directly to their phone. Sign up to Floodline (external)
- Additional flooding advice and support for property owners and community groups affected by flooding can also be obtained through the Scottish Flood Forum (external) on 01698 839021 or at Rain and Flooding (external)

The Aberdeen City Council

The main responsibilities resting with the Operations Roads and Flooding Teams and the actions taken to address these responsibilities:

Preparation of maps of water bodies and SuDS (Sustainable Urban Drainage Systems).

Maps of waterbodies are in place on GIS. SuDS maps process in place.

Assessing water bodies for conditions likely to pose a flood risk.

The Flooding team in collaboration with Scottish Water have delivered the Integrated Catchment Study (ICS). The ICS identifies flood risk from watercourses. The Flooding team is continuing to deliver a range of additional flood studies. Watercourse assessments are carried out to assess those that may pose a flooding risk.

 Undertake maintenance works in water bodies including the clearance of watercourses where the works will significantly reduce flood risk

Watercourses inspections are carried out and appropriate actions are taken when there is high flood risk. Priority hakes (trash screens) are being checked and cleaned by Tullos/Roads monthly or on receipt of a flood alert/warning.

Maintenance of existing flood alleviation schemes.

The flood alleviation schemes in place are monitored and maintained appropriately (example Stronsay Drive). Checks are carried out by Tullos/Roads on receipt of a flood warning. The most sensitive are monitored using CCTV and actions taken to clear blockages on receipt of a flood alert/warning.

Maintaining road gullies – while these are not designed to cope with extreme weather
events it is still important that they operate efficiently to avoid localised flooding.

Gullies are checked and cleaned by Tullos/Roads.

Planning and development management (with flood risk advice from SEPA)

Flooding team gives advice on those planning applications where a Flood Risk Assessment is required.

Working with the emergency services in response to severe flooding.

The council responds to incidents providing relevant assistance to emergency services.

 Coordinating reception centres for people evacuated from their homes and arrange temporary accommodation if appropriate.

Depending on the severity of the incident the council will respond to and assist with evacuation and temporary accommodation.

Coordinating the aftermath of a flood

The Flooding Team keep records of any flooding incident, investigate and take the appropriate action (if required). Flooding team deal with PLP's (Property Level Protection funding)

Dealing with road closures (except on trunk roads).

Flooding and roads teams monitor SEPA alerts/warning, weather (Radar), river and tides levels and in case of high flood risk raise the issue to the appropriate team for immediate action including closing roads (Tullos/Roads).

Preparation of local Flood Risk Management Plans (from 2012)

North Local Flood Risk Management Plans have been prepared in collaboration with SEPA, Aberdeen City Council, Aberdeenshire Council, Moray Council, Scottish Water and Cairngorms National Park Authority.

On receipt of flood alert/warning the following actions are considered:

- Continuous weather, river, and tide levels monitoring
- Priority hakes (trash screens) checking and cleaning
- Media release
- Arranging road closures
- Riverside flood gates closure
- Gullies cleaning
- Flood alleviation schemes monitored and cleaned

On receipt of a Severe Flood warning the roads service will

- Arrange for a team of up to 5 staff members to monitor and react to flooding incidents including a Manager, Team Leader, Technical Officers, Supervisor, Support staff.
- The team will manage and direct frontline resources responding to the flooding event, including supplying receiving and recording identified problem locations, arranging road closures, clearing blockages in road drainage systems, gullies, culverts, ditches, making sand bags available, closure of flood gates, monitoring social media to identify problem locations, assisting emergency services. Monitoring and cleaning flood alleviation systems.
- Make available sandbags for residents who have a property that is in imminent risk of flooding and is not a known flood risk.
- Work with the Duty Emergency Response Coordinators (DERC) Emergency Planning Unit, Local and North of Scotland Resilience Partnerships on major incidents that involve flooding.
- Provide inspection, assessment and enforcement at flooding location following an event.