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1 ROBSON

1.01 Definitions

In these Local Area Specifications, capitalized terms will have the corresponding meanings as set out in Article 1 of this Agreement and Section 1 of this Schedule 1 (“Specifications”), and as set forth below:

“Invasive Plants” means any invasive alien plant species that has the potential to pose undesirable or detrimental impacts on humans, animals or ecosystems.

“Salt Containment Infrastructure” means a storage facility, including all of its components that is used for the storage and loading/unloading of salt for winter maintenance operations including, but not limited to the salt shed, fabric/steel roofing, pit floor, evapotranspiration liner, containment pad, and skirt.

1.02 Highway Crossing Infrastructure

1.02.1 Outcome

To provide safe passage of pedestrians and animals underneath or beside a Highway.

1.02.2 Routine Maintenance Services

- PM1.02.2-1** Respond immediately to restrict all access to Highway Crossing Infrastructure, as directed by the Province.
- PM1.02.2-2** Repair or replace immediately, as directed by the Province, any damaged or deteriorated Highway Crossing Infrastructure that has been structurally compromised, as determined by the Province.
- PM1.02.2-3** Repair or replace within 3 months, any damaged or deteriorated Highway Crossing Infrastructure that has not been structurally compromised, as determined by the Province.
- PM1.02.2-4** Remove Debris immediately from the surfaces of floors, pedestrian paths or stairways.
- PM1.02.2-5** Remove Accumulations, surface contaminants and chemicals by June 30 of each calendar year from all surfaces.
- PM1.02.2-6** Remove Debris within 1 month that impedes the passage of animals in animal accessed Highway Crossing Infrastructure.

1.02.3 Quantified Maintenance Services

- PM1.02.3-1** Repair within 24 hours damaged or deteriorated surfaces on underpass floors, pedestrian paths or stairways.
- PM1.02.3-2** Repair within 6 months other damaged or deteriorated surfaces.

Specific Requirements:

- a) Maintain Highway Crossing Infrastructure within Rest Areas in accordance with the response of the adjacent Highway Classification.

1.02.4 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional material and/or procedures requirements are as follows:

- a) Use materials in accordance with the same type and quality on the existing Highway Crossing Structure.

1.02.5 Routine Maintenance Services Cap

\$50,000 – for each occurrence, the cost to repair or replace Highway Crossing Infrastructure.

1.02.6 Warranty

Refer to Section 3 of this Schedule 1 (“Specifications”).

1.03 Horizontal Drain System Maintenance

1.03.1 Outcome

To provide fully functional Highway horizontal drain systems.

1.03.2 Routine Maintenance Services

- PM1.03.2-1** Repair or replace within 30 days, damaged or deteriorated collector systems and drains.
- PM1.03.2-2** Cut vegetation that exceeds 20 cm in height at horizontal drain outlets and collector system cleanouts to ensure they function as designed.
- PM1.03.2-3** Inspect all horizontal drain systems annually.
- PM1.03.2-4** Flush and clean all horizontal drain systems once in the First Contract Year.
- PM1.03.2-5** Flush and clean all horizontal drain systems after the First Contract Year, as directed by the Province.

Notes:

- 1) The horizontal drain systems are identified in Appendix A.

1.03.3 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Maintain access to horizontal drain system sites for cleaning;
- b) Flush the drain casings of sediment and clean the slots / perforations of obstructions and caking; and
- c) Test, collect and record flow rates, drain conditions, and length of insertion by the cleaning tools immediately before and after each flushing/cleaning.

Appendix A

Name	Type	Construction Year	Location Details	Fan Number	No. of Drains
Hwy 16 - Amies Slide	PVC	2014	Hwy 16 - 1.7 km east of Fraser River Bridge, McBride	1	15
Hwy 16 - West Twin Bridge	n/a	2013	Below west side of bridge near creek elevation	n/a	n/a
Hwy 5 - Trans Mountain Pipeline (Frenche's) Slide	n/a	1988	Hwy 5 – 52 km south of Valemount	n/a	10
Hwy 5 - Trans Mountain Pipeline (Frenche's) Slide	n/a	1986	Hwy 5 – 52 km south of Valemount	n/a	68
Hwy 5 - Trans Mountain Pipeline (Frenche's) Slide	Metal	n/a	Hwy 5 - 2.2 km south of North Thompson River Bridge (most southern bridge where 3 bridges cross North Thompson within 6 km)	1	2
				2	4
				3	3
				4	2
				5	2
Hwy 5 - Blue River Slide	Metal	1970	Hwy 5 - 3.7 km south of Blue River Bridge, 1.8 km south of Steward Road on cut slope, on west side of highway	1	2
				2	2
Hwy 5 - Pyramid Slide	Metal	1970	Hwy 5 - 7.8 km north of Mileadge Creek, on cut slope at west side of the highway	1	3
				2	1
				3	2
				4	3
				5	1
Hwy 5 - Chappel Creek Slide	Metal	1970	Hwy 5 - 8.5 km north of Mileadge Creek, on cut slope at west side of the highway	1	3
				2	1
				3	2

1.04 Invasive Plants Management

1.04.1 Outcome

To minimize the introduction and spread of Invasive Plants on Highways and Gravel Pits.

1.04.2 Routine Maintenance Services

PM1.04.2-1 Meet annually, with the agency conducting Invasive Plant management for the Province, during development of the Quantified Maintenance Services to coordinate planned activities.

PM1.04.2-2 Inspect all Gravel Pits and material sources annually to ensure they are free of Invasive Plants.

PM1.04.2-3 Report Invasive Plant conditions to the agency conducting Invasive Plant management for the Province, as follows:

Performance Criteria	Response
a) Prior to the disturbance of knotweed species that restricts Sight Distance or creates a condition that is unsafe or has the potential to become unsafe	immediately
b) Any Invasive Plant infestations on Highways and Gravel Pits	2 d

Notes:

- 1) Only the exposed, active areas of the Gravel Pits are to be considered.

1.04.3 Quantified Maintenance Services

PM1.04.3-1 Seed specific areas of exposed soils exceeding 1 metre up the Shoulder sideslope and the backslope due to ditch maintenance.

Notes:

- 1) The Standard Specifications for Highway Construction describes the revegetation requirements including, but not limited to blending, seed analysis and application timing.

1.04.4 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Comply with the Best Practices for Managing Invasive Plants on Roadsides;

- b) Incorporate Invasive Plant management when planning and performing Quantified Maintenance Services;
- c) Seed side-cast ditch materials;
- d) Seek approval from the Province if disturbance of knotweed species is required;
- e) The Contractor may submit a plan for approval by the Province for the use of herbicides, as a control measure for knotweed or other Invasive Plants;
- f) Herbicides are to be applied by a certified pesticide applicator;
- g) Do not use gravel materials contaminated with Invasive Plants, unless a rectification process is submitted and approved by the Province; and
- h) Report Invasive Plants to the agency conducting Invasive Plant management for the Province online or using the Province's smartphone application or the provincial toll-free service.

1.04.5 Warranty

Refer to Section 3 of this Schedule 1 ("Specifications").

1.05 Multi-Lane Snow Removal – Messiter Hill and Shale Hill**1.05.1 Outcome**

To provide enhanced highway snow removal exceeding the performance measures in General Specifications 3.01 of this Schedule 1 (“Specifications”) related to the response to Winter Accumulations and Compact on Messiter Hill (Highway 5) and Shale Hill (Highway 16).

1.05.2 Routine Maintenance Services

PM1.01.2-1 Remove Winter Accumulations that exceeds 4 centimetres in height from all Travelled Lanes.

Notes:

- 1) The sections of Highway for enhanced snow removal in Service Area 20 are shown in Appendix B.

1.05.3 Materials and/or Procedures

- a) Refer to Subsection 1.6 of this Schedule 1 (“Specifications”).

Appendix B

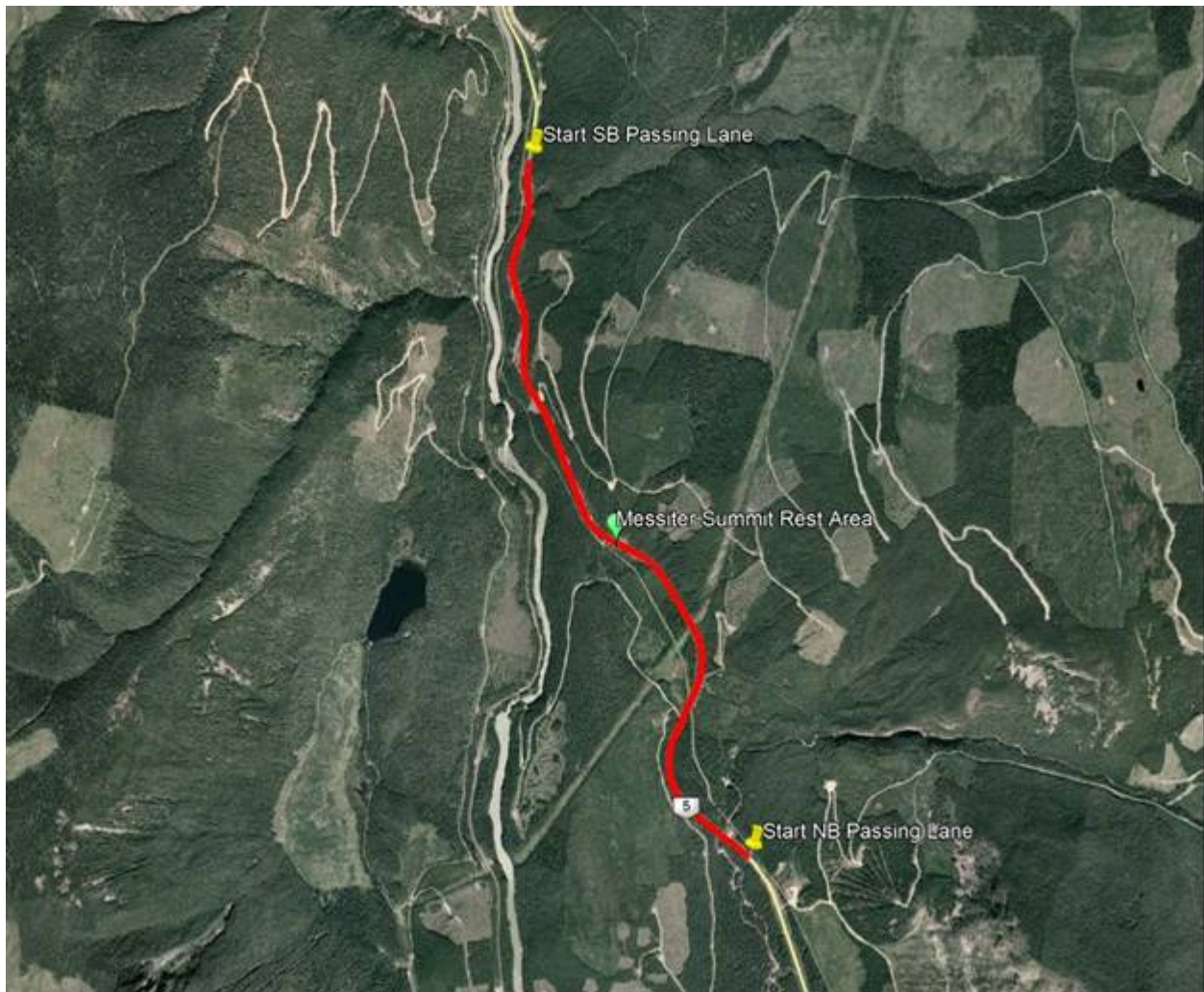


Figure 1: Messiter Hill (Highway 5)

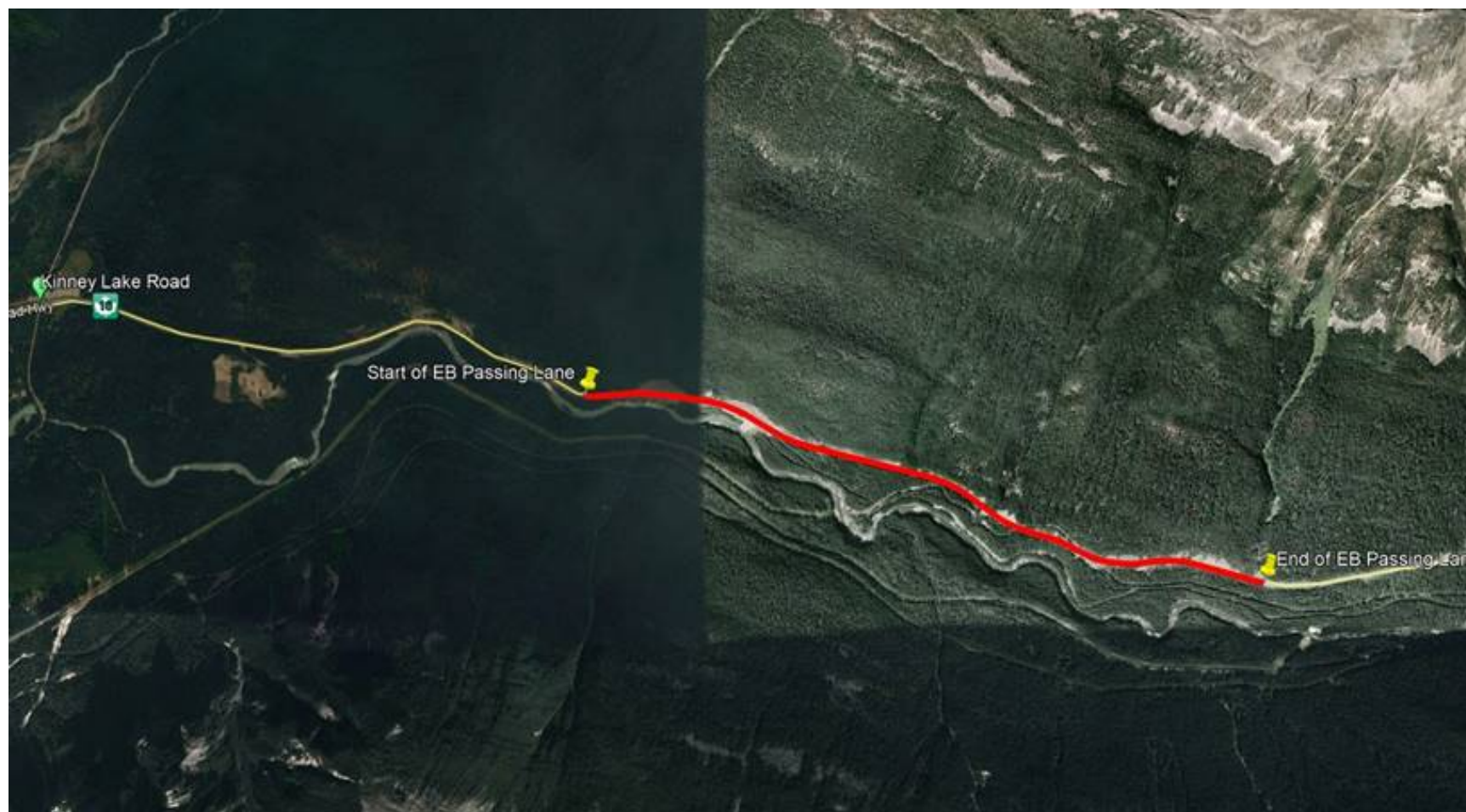


Figure 2: Shale Hill (Highway 16)

1.06 Salt Containment Infrastructure Maintenance

1.06.1 Outcome

To provide for the safe handling and storage of salt and Winter Abrasives on provincial land and monitor, maintain, repair and replace provincially owned Salt Containment Infrastructure.

1.06.2 Routine Maintenance Services

- PM1.06.2-1** Off-load salt onto an evapotranspiration liner or containment pad, if available and/or store immediately within the salt shed.
- PM1.06.2-2** Retrieve and return to the salt shed immediately, any salt spillage over the top of skirt that lines the inside of the salt shed.
- PM1.06.2-3** Remove immediately, any salt or salt contaminated material on the pit floor to a depth of 40 centimetres for use with Winter Abrasives when processing.
- PM1.06.2-4** Notify the Province immediately of any damage to the containment pond, including but not limited to the liner, berm or fencing.
- PM1.06.2-5** Temporarily repair damaged or deteriorated salt shed components immediately, that permits water infiltration.
- PM1.06.2-6** Permanently repair within 8 weeks, any temporarily repaired steel/fabric salt shed components that permits water infiltration.
- PM1.06.2-7** Permanently repair within 2 weeks, any temporarily repaired wooden salt shed components that permits water infiltration.
- PM1.06.2-8** Inspect and document the condition of Salt Containment Infrastructure as follows:

Performance Criteria	Response
a) Evapotranspiration water/brine levels	daily or more often when required
b) Water in the containment pond to prevent over-flowing	daily or more often when required
c) Steel/fabric salt sheds including, but not limited to, the steel structural components including base plates, wire cross-bracing, fabric roof, fabric lashing, winches and vents, lock-blocks and protective skirt	bi-annually in the spring and fall or in accordance with the manufacturer's specifications and recommendations, whichever is more frequent
d) Wooden salt shed including but not limited to structural condition and weatherproof exterior	annually
e) Salt shed apron and containment pad surfaces	annually
f) Evapotranspiration liner surface absorption	daily or more often when required

PM1.06.2-9 Maintain the superstructure of steel/fabric salt sheds as follows:

Performance Criteria	Response
a) Remove grime and encrusted salt off the salt shed's steel interior	annually
b) Lubricate winches	annually
c) Re-tension-web and fabric roof lashing	annually
d) Re-tighten fastening bolts	annually
e) Remove surface rust	annually

PM1.06.2-10 Repair or replace Salt Containment Infrastructure as follows:

Performance Criteria	Response
a) Damaged or deteriorated containment pond components, including but not limited to the liner, berm or fencing	immediately
b) Loss of absorption for a compact surface where water is ponding on the evapotranspiration liner	immediately
c) Saturation or overflow of evapotranspiration water/brine	when required
d) Damaged or deteriorated wooden salt shed components	within 2 weeks of the bi-annual inspection or as noted in PM1.06.2-8
e) Damaged or deteriorated steel/fabric salt shed components	within 8 weeks of the bi-annual inspection or as noted in PM 1.06.2-8 if salt and/or Winter Abrasive with salt is present or prior to when the salt and/or Winter Abrasive with salt is scheduled to be stored
f) Cracked, chipped edges, pot holes, settling/ponding, or base failure of surfaces	General Specifications 1.01, 1.06 and 1.10 in Schedule 1 ("Specifications") for a Class 4 Highway

PM1.08.2-11 Replace annually, the top 10 centimetres of salt contaminated material on the evapotranspiration surface with free draining material and use the removed salt contaminated material for Winter Abrasives processing.**Notes:**

- 1) The Province inspection H-form is to be used for inspections of steel/fabric salt sheds;
- 2) PM1.06.2-10 (f) includes possible Quantified Maintenance Services; and
- 3) Salt shed locations are provided in Appendix A of Schedule 13 ("Gravel Licence").

1.06.3 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Load salt and/or Winter Abrasive containing salt on a containment pad or the evapotranspiration liner surface;
- b) Store salt and/or Winter Abrasive containing salt at a height below the top 30 centimetres of the skirt within a steel/fabric salt shed and ensure the top of the lock block wall remains free of salt accumulation;
- c) Park heavy equipment used for loading salt or Winter Abrasive containing salt, on the containment pad, evapotranspiration liner or within the salt shed;
- d) Prevent spillage onto the pit floor when transporting salt;
- e) Store Winter Abrasive containing salt under cover or on a containment pad or on an evapotranspiration liner, if supplied;
- f) Use a spill proof apron for salt hoppers to contain salt and facilitate retrieval;
- g) Store salt contaminated material for future use with Winter Abrasives on a containment pad or evapotranspiration liner or in a salt shed;
- h) Prevent salt contaminated materials from being tracked from the containment pad or evapotranspiration liner and use a containment pond for disposal, if one exists on site;
- i) Maintain an open catchment area adjacent to the salt shed exterior walls to accommodate unobstructed snow shedding off the structure;
- j) Remove snow from the roof of steel/fabric salt shed and adjust the roof tension after the snow accumulation has been removed in accordance with the manufacturer's specifications and recommendations;
- k) Reseal exposed surfaces following the removal of surface rust with zinc-rich primer/paint;
- l) Maintain and repair damaged or deteriorated salt shed components in accordance with the manufacturer's specifications and recommendations;
- m) Use engineered designs for all repairs, modifications or replacement to steel/fabric salt shed structural components, including but not limited to the fabric roof, prepared by a Professional Engineer, retained by the Contractor; and
- n) Securely lock gates and post signage to prevent unauthorized access to fenced containment ponds.

1.06.4 Routine Maintenance Services Cap

\$50,000 – for each occurrence, the cost to repair or replace a salt shed.

1.07 Small Airport Winter Maintenance – Blue River

1.07.1 Outcome

To provide winter maintenance on runways, taxiways and aprons to facilitate the safe operations of small airports.

1.07.2 Routine Maintenance Services

- PM1.07.2-1** Respond to medivac flights or other emergency flights immediately, as directed by the airport operator, emergency responders, police authorities, or the Province.
- PM1.07.2-2** Remove Winter Accumulations in advance of the arrival and departure of flights from the runway, taxiway and apron.
- PM1.07.2-3** Remove Winter Accumulations within 2 days after the Weather Event from the runway, taxiway, apron, pre-threshold and other paved areas.
- PM1.07.2-4** Maintain thickness of the Compact surface no greater than 50 mm for the runway, taxiway, apron, graded area, pre-threshold and parking area.
- PM1.07.2-5** Remove Winter Accumulations to ensure all lights and visual navigational aids, including but not limited to runway lights, approach lights, Runway Intersection Lights (RILS) and Visual Approach Slope Indicator Systems (VASIS) are clear, visible, and legible and function as designed.
- PM1.07.2-6** Remove snow drifts, snow piles or snow windrows to a location outside the airport boundary, as directed by the airport operator and the Province.

Notes:

- 1) The Blue River Airport is a year-round airport with a 1544 metre by 18.3 metre asphalt surfaced runway that is operated by Cariboo Helicopter Skiing (Mike Wiegele Helicopter Skiing);
- 2) The airport operator and the Province will advise the Contractor of the arrival and departure of flights; and
- 3) Refer to Schedule 18 ("Insurance Requirements") for insurance coverage requirements for the small airport winter maintenance.

1.07.3 Materials and/or Procedures

Refer to Section 1.6 of this Schedule 1 ("Specifications").

Additional materials and/or procedures requirements are as follows:

- a) Comply with the Transport Canada Aeronautical Information Manual, Transport Canada Aerodrome Standards and Recommended Practices – Land Aerodromes 5th

Edition, Transport Canada Airport Winter Maintenance and Planning Advisory Circular AC 302-013 and other Transport Canada Advisory Circulars;

- b) Deposit Winter Accumulations 8 metres beyond the edge of the runway, pre-threshold areas, taxiway and apron, where the terrain permits in accordance with Transport Canada requirements;
- c) Ensure Compact surface is uniform, smooth and safe for aircraft use with no damage to the underlying ground surface;
- d) Extend the maintained Compact surface 8 metres beyond the edge of the runway lights or graded area;
- e) Vehicles accessing the runways are to be equipped with required warning lights, able to communicate with the airport operator and able to monitor the Aerodrome Traffic Frequency (ATF) at all times; and
- f) Repair airport infrastructure, aircraft and property that is damaged by the Contractor.

1.07.4 Routine Maintenance Service Cap

\$0 – for each occurrence, the cost to respond to medivac flights or other emergency flights.

\$0 – for each occurrence, the cost to respond to greater than 6 requests for the removal of Winter Accumulations in each calendar year, not including responses to medivac flights or other emergency flights.

1.08 Vehicle Inspection Station Maintenance

1.08.1 Outcome

To facilitate the safe and efficient operation of Vehicle Inspection Stations.

1.08.2 Routine Maintenance Services

PM1.08.2-1 Provide Services at the Vehicle Inspection Station areas in accordance with the response identified in the Vehicle Inspection Station plan in Appendix C.

Specific Requirements:

- a) Remove Winter Accumulations from all Travelled Lanes and vehicle accessible portions of the Vehicle Inspection Station in accordance with PM3.01.2-1 (a) of the General Specifications of this Schedule 1 "Specifications").

Notes:

- 1) The Contractor is not responsible for the buildings or for the management and maintenance of the weigh scale, electrical components and the water and septic systems.

1.08.3 Quantified Maintenance Services

PM1.08.3-1 Provide Services at the Vehicle Inspection Station areas in accordance with the response identified in the Inspection Station plan in Appendix C.

Notes:

- 1) The Contractor is not responsible for the buildings or for the management and maintenance of the weigh scale, electrical components and the water and septic systems.

1.08.4 Materials and/or Procedures

Refer to Subsection 1.6 of this Schedule 1 ("Specifications").

1.08.5 Warranty

Refer to Section 3 of this Schedule 1 ("Specifications").

Appendix C Vehicle Inspection Station Plan

