SCHEDULES “16” and “17”

GLOSSARY OF TERMS FOR MAINTENANCE SPECIFICATIONS AND LOCAL AREA SPECIFICATIONS

In these Maintenance Specifications and Local Area Specifications, unless the context otherwise requires, the following terms will have the following meanings ascribed to them:

Abutment	a wall supporting the end of a Bridge or Span and retaining the approach Fill.
Acrow	a proprietary name for a modular steel Panel Bridge similar to a Bailey Bridge.
Agreement or Maintenance Agreement	the Agreement between the Contractor and the Province to which this Schedule is attached.
Alligatored	an area of pavement identified by a checkerboard of cracks giving an alligator hide appearance that may or may not be accompanied by surface distortion.
Anchor Bolt	a Foundation bolt (including hardware), drift spike, or any other device used for holding any mechanism or structure down. It may or may not be threaded.
Ancillary Facilities	Any facilities that forms part of the highway system, including trails, driveways, fences, shoulder, parking facilities, etc. whether privately or publicly owned but entitled to be used by the public by legislation.
Anti-Icing	activity involving the direct application of liquid or solid materials to bare or plowed pavement carried out in advance of a Weather Event to prevent the bonding of snow or ice to the roadway surface.
Armour	metal covering used at joints or around Piles, including rigidly affixed anchorages, to protect the underlying material.
Backfill	earth or other material used to replace material removed during construction, such as in culvert trenches, and behind Bridge Abutments and Retaining Walls. Also refers to material placed in Binwalls and between an old structure and a new lining.
Backslope	the slope at the opposite side of a Highway ditch from the Shoulder, and extending up to the natural ground level.
Bailey	a modular Bridge made of interchangeable latticed steel Panels coupled with pins. Used primarily as an emergency or temporary Bridge.
Bearing	Superstructure support elements between the Bridge Seats and the Bridge Superstructure. Composed of steel, rubber, etc. separated into two general categories as follows: a) fixed allows only rotational movements. b) expansion allows longitudinal as well as rotational movements. Note: Refer to drawings for specific Bridges.
Bent	a line of columns built as a structural unit, transverse to the Bridge and supporting the load of the Superstructure.
Bleeding	an area where the asphalt mix is too rich, leading to the asphalt oozing to the surface in puddles and leaving a slick and slippery area.
Box Beam	concrete box Stringers which are precast for quick assembly at a Bridge site. When placed side by side these form the Deck as well and are often temporarily used as-is for a traffic Wearing Surface.
Boxed Heartwood	refers to timber cuts that enclose (box) the heart of the tree within the edges of the timber and as defined by the National Lumber Grades Authority.
Braces	a diagonal, or sometimes horizontal, structural member used to stiffen a structure.

Bridge	a structure providing a means of transit for pedestrians and/or vehicles above the land and/or water surface of a valley, arroyo, gorge, river, stream, lake, canal, tidal inlet, gut or strait, above a Highway, railway or other obstruction, whether natural or artificial. The essential parts of a Bridge are: (1) the Substructure consisting of its Abutments and Pier or Piers supporting the Superstructure, (2) the Superstructure slab, girder, Truss, arch or other span or spans supporting the Highway loads and transferring them the Substructure, and (3) the Highway and its incidental parts functioning to receive and transmit traffic loads.
Bridge Abutment Fills	see Backfill.
Bridge Deck(s)	together, the structural components related to corrosion protection and wearing surface elements of a Bridge, including but not limited to: steel plates, steel grid, membranes and asphalt and polymer wearing surfaces.
Bridge Deck System(s)	is comprised of the components that support the roadway portion of the bridge and other components that make up the deck such as concrete slab, steel, wood, overlays and membranes.
Bridge Joints	includes expansion joints, sealed joints, Finger Joints, Sliding Plate Joints and all other Deck joints.
Bridge Joint Armour	steel plating conforming to the deck slab designed to support and/or protect Bridge Joints.
Brow Log	a log placed above the Deck surface used as a Wheelguard. May act as an additional load-carrying Stringer if tied to the structure via Needle Beams.
CGSB	Canadian General Standards Board. CGSB specifications may be obtained from the Canadian General Standards Board, Ottawa, Ontario, K1A 1G6.
Camber	slight arch built into the longitudinal profile of a beam to accommodate deflections due to Dead Loads and Live Loads.
Cap	a horizontal member on an Abutment or Pier to distribute the loads of the Bridge. The Stringers or Bearings rest on the Cap.
Cementitious	having the properties of cement; essentially composed of cement.
Chord	the upper and lower longitudinal members of a Truss.
Class and Classification	has the same meaning as defined in Article 1 of the Maintenance Agreement
Commencement Date	the first day of the Term, as described in the Maintenance Agreement.
Compact	a smooth winter driving surface of packed snow and ice that is free of potholes, rutting, washboard and Winter Accumulation.
Contract Year	has the same meaning as defined in Article 1 of the Maintenance Agreement.
Counter Brace	a Truss diagonal member inclined in the opposite direction to the Main Brace. Smaller than the Main Brace.
Crack Filling	an activity intended to reduce the amount of water infiltrating into the pavement and to reinforce the adjacent pavement involving the placement of a crack filler, generally a cold-pour bituminous emulsion, into the crack without affecting the crack geometry.
Crack Sealing	an activity intended to prevent water from penetrating the pavement structure involving thorough crack preparation (routing) and followed by the placement of high-quality materials in a specific configuration.
Crook	a deviation edgewise from a straight line drawn from end to end of a piece of lumber, whereas “twist” is a deviation flatwise including a curl, and “bow” is a deviation flatwise only.
Crown	the vertical rise in elevation from the outside edge to the centerline on straight sections of Highway, used to ensure run-off drainage.
Danger Tree	any tree assessed as hazardous using a recognized assessment methodology such as that recognized by the Wildlife Tree Committee of British Columbia or the International Society of Arboriculture.
Debris	litter, rubbish, vegetation, fallen rocks, dead animals, spilled materials, brush, branches or other tree components and other items, which are not part of the Highway by intention.
Debris Torrent Structure	any structure which by design and/or function acts to control the flow of, or contain, Debris or Debris Flows, including but not limited to Debris impound basins, avalanche berms, avalanche deflector mounds, basins associated with snowsheds.

Deck	the portion of a Bridge that supports the Highway, from the top of the major structural members to the Wearing Surface, and designed to distribute loads evenly across the Bridge.
Decking	timber planking used as a Wearing Surface on the Deck of a timber Bridge.
De-Icing	activity involving the direct application of liquid or solid materials to Compact to facilitate removal of Compact from the roadway during or after a Weather Event.
Density	has the same meaning as defined in the Pavement Surface Condition Rating Manual.
Dirt and Gravel Highway	unpaved Highway, including the following components: the top surface of the Highway and the area between the outside edge of the top surface and the bottom of the ditch, known as the side slopes. Furthermore, the Dirt and Gravel Highway edge is the breakpoint between the extreme outside edge of the top surface and the side slopes.
Distortions	has the same meaning as defined in the Pavement Surface Condition Rating Manual.
Drainage Appliance	together, all components facilitating the movement of water off of or under a Highway including manholes, catch basins, inlets and outlets, drain pipes, french drains, flumes, box culverts and culverts less than 3 meters in size.
Ekki Wood	(lophira procera) a tropical hardwood species used for timber Decking on Bridges.
End Post	the last diagonal member at the end of a Truss, or the vertical member at the end of a Bailey or Acrow Bridge.
Engineer	an engineer licensed to practice in the Province of British Columbia pursuant to the *Engineers and Geoscientists Act*, R.S.B.C. 1996, c. 116;
Fill Slopes	earth and/or rock slopes usually created from cut and fill road construction methods or fill used to elevate a road from the original ground surface to aid drainage.
Finger Joints	an expansion Joint in which the opening is spanned by meshing steel fingers or teeth.
Flashing	sheet metal used as waterproofing or Armour for timber or log members.
Floor Beams	transverse members which support the Stringers and transmit the load to the main Girders or load carrying members. Steel Pier Caps on reinforced concrete Pier columns are a special type of Floor Beam.
Flume	an open channel or conduit of metal, concrete, or wood used to direct water away from a drain.
Flyover	a structure carrying one-way traffic over a Highway.
Footing	the portion of the Substructure resting on the ground.
Foundation	a) the supporting soil material upon which the structural portion of the Bridge is placed. b) portions of the Bridge (usually below ground) which distribute the pressure to the soil or artificial supports. Similar to Footing.
Freeway	multi-lane Highway with fully controlled access.
Galvanized	steel or iron item which has a coating of zinc applied for rust protection.
Gradation	the distribution of size of material particles from coarse to very fine, determined by quantities retained on screens of decreasing mesh size or spacing.
Grading	the machine blading of dirt or gravel Highway surfaces to remove Raveling and Rutting and establish proper cross-section.
Grout	a fluid mixture of cement, sand, and water that can be poured or pumped easily.
Gusset	a plate serving to connect the elements of a member or the members of a structure and to hold them in the correct alignment and/or position at a joint.
Hard Surfaced Highways	all Highways which do not have a dirt or gravel surface.
Heart-Side	the face of a timber that was closest to the centre of the tree. Growth rings are concave on the heart-side.

Heartwood	timber members that contain the center annual rings of the original tree, or the soft central core.
Highways	has the meaning ascribed to it in the Maintenance Agreement.
Highway User	any person or persons, regardless of form of transportation, that use any lands or facilities within the jurisdiction of the Ministry of Transportation and Infrastructure.
Laminated	transverse members of a laminated Bridge Deck having the same function as cross-ties. Usually preservative treated two-inch nominal sized lumber tightly placed perpendicular to the traffic direction and vertically on edge over the Stringers, then nailed to the Stringers and each other. May also be parallel to the traffic (longitudinally laminated).
Lateral Rod	a horizontal, transverse tension rod.
Longitudinal Cracking	means Longitudinal Wheel Path Cracking and Longitudinal Joint Cracking as defined in the Pavement Surface Condition Rating Manual.
Lower Mainland	the area to the south of a straight line from Horseshoe Bay east to Hope and then proceeding due south to the Canada-USA border and then proceeding west along the Canada-USA border to the Strait of Georgia.
Major Event	includes a flood, landslide, land subsidence, ice jam, wind event, dam failure, earthquake, tsunami or volcanic eruption.
Major Event Site	area affected by a Major Event, separated by 1 km of clear distance from another area affected by a Major Event for a 24 hour period; a site that had been restored to a state where the Province determines no further work was required by the Contractor, will generate a “new site” when further damage/disturbance occurs.
Main Brace	a primary diagonal member in a Truss.
Maintenance Agreement	see Agreement.
Maintenance Services	the same meaning as described in Article 1 of the Maintenance Agreement.
Maintenance Specification(s)	the Maintenance Specification(s) of the Province for the particular maintenance activity described in this Maintenance Specifications.
Median	the portion of a divided Highway separating the traveled ways for traffic in opposing directions.
Ministry	means the Ministry of Transportation and Infrastructure.
Multiplate	a steel culvert, three metres or more in diameter, fully or partially factory assembled or field assembled by bolting together a number of corrugated steel plates. When less than three metres in diameter it will be considered to be a culvert.
Needle Beam	a transverse log, timber, or steel beam placed under the Stringers and fastened to them to make them act as a unit. Used to join the Stringers and trussing system.
Number 1	lumber grading in accordance with the National Lumber Grades Authorities Standard Grading Rules for Canadian Lumber.
Number 2	lumber grading in accordance with the National Lumber Grades Authorities Standard Grading Rules for Canadian Lumber.
Off-take	the extension of ditches away from the line of the Highway and toward the Right-of-way boundary or low ground for the purpose of de-watering a Highway road base or eliminating excessive Roadside water flow and erosion.
Overhead	a Bridge carrying a Highway over a railway, or a railway and another facility.
Overlay Patch	a Permanent patch that consists of a layer of new asphalt over an existing asphaltic pavement, or a new layer of asphalt or concrete on a Bridge deck.
Overpass	a grade separated structure where the Highway passes over another feature including a Highway of less traffic volume
Panel	the main load carrying member in a Bailey or Acrow Bridge structure. Panels are pinned together end to end and connected side by side where necessary to form continuous Girder Trusses from bank to bank. A traffic surface Deck is mounted between the bottom Chords of the Panels.

Parapet	a wall-like member of reinforced concrete integrally connected to the sidewalk portion of a Bridge to serve as a protective barrier for vehicular or pedestrian traffic.
Permanent patch	a patch that lasts as long as the adjacent surface.
Pier	an intermediate vertical support (Substructure) used to join and support the two Spans.
Pile	a structural column driven deep into the ground (at least two metres) to provide support for structures built on soft ground. Piles are used for Abutments and Piers and for protective dolphins and retaining walls.
Piling	a structure or group of Piles.
Pin	a cylindrical bar used as a means of connecting, holding in position, and transmitting the stresses of the members forming a Truss or framed Joint.
Ponding	large puddles of water pooling on the Highway surface.
Portal	the clear unobstructed space of a through Bridge forming the entrance to the Bridge. The entire Portal member of the top Chord bracing which fixes the uppermost limit of the vertical clearance.
Pot-hole	on a paved or Sealed Highway, an area where a piece of pavement has broken free and been removed, leaving a hole, usually the depth of the asphalt pavement layer and on a gravel Highway, a hole in which water puddles.
Province	means Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister Responsible for the Transportation Act and her agents, servants, representatives, contractors and employees.
Quantified Maintenance Services	one of the Maintenance Services, as defined in Article 1 of the Maintenance Agreement and in the Introduction to these Maintenance Specifications.
Railway Authority	a company which, under the Railway Act, has control of and is responsible for the rail portion of a Railway Crossing.
Railway Crossing	Highway surface common to both the Railway Authority and the Province bounded by a length equal to the length from end of tie to end of tie and a width equal to the Highway width from Shoulder point to Shoulder point plus one-half metre each side.
Railway Crossing Approach	the Highway prism including ditches on the Railway Authority's property from the Railway Crossing outward to the edge of the Railway Authority's Right-of-way.
Rakers	these members, in Bailey and Acrow Bridges structures, are the stabilizers that connect between Transoms and the top hole in a Panel vertical section.
Ravelling	on a paved Highway, an area where the asphalt mix is too lean, leading to the aggregate popping out of the mix or breaking away under wear and on a gravel Highway, where the coarse aggregate is loose and there are not enough Fines to allow compaction to a tight surface.
Re-decking	the replacement of a Bridge wearing surface. On timber structures this includes: planking, wheelguards and shims, rail posts, post braces and railing, and may include cross ties. Minor Re-decking involves no replacement of cross-ties; Major Re-decking involves the replacement of cross-ties.
Refurbish	for the purposes of the Maintenance Specification 5-440 Sign System Maintenance only, it means the removal of the Sign from the field to a Sign shop, stripped of the old Sign face by a chemical or grinding process, and an addition of a new face to the Sign blank. Sign overlaying done at the Sign shop is also considered as being Refurbished.
Reinforcing Steel	steel bars embedded in concrete structures during forming and manufacture. These bars add tension strength to concrete and resist contraction or expansion due to temperature change.
Re-shaping	the machine blading of Dirt and Gravel Highways from ditch line to ditch line, to re-establish the proper shape of the Highway including Shoulder edges and Crown. This process also brings aggregate and Fines back onto the surface from Shoulders and ditches and involves a deeper cut than Grading.
Retaining Structure	a vertical structure designed to resist the horizontal earth pressures of a Fill or other material and/or a structure designed to prevent material from spilling onto the Highway.
Return Period	maximum repeated interval of time at which Winter Accumulation must be removed at any point on the Highway.

Right-of-way	the legally defined property on which the Highway is situated.
Rip-rap	protective cover of large stone, rock or concrete of various sizes placed compactly or irregularly to prevent and protect stream banks, sides of fills around Abutments or Piers, the Travelled Lanes and other Highway features from Scour, Debris and erosion.
Road Base	the portion of Highway subsurface on which the traveling surface or wearing surface is placed.
Roadside	that part of the public Highway between the edge of Shoulder and the Highway Right-of-way boundary, including the sidewalk. It does not include the Shoulder.
Routine	one of the Maintenance Services, as defined in Article 1 of the Maintenance Agreement and in the Introduction to these Maintenance Specifications.
Rutting	deformation of the surface of the road in the vehicle wheelpath due to repetitive passes of vehicle tires.
S4S	a timber surfacing designation meaning Surfaced Four Sides.
Safety Device	devices that improve the safety of the travelling public and include but are not limited to anti-glare screens, impact attenuators, and median and roadside delineation devices.
Sapwood	outer layers of growth of a tree between the bark and the Heartwood which contains the sap.
Scour	the local lowering of the streambed by the erosive action of water. a) general scour occurs in a waterway opening as a result of obstruction of the flow. b) local scour occurs at a Pier or Abutment as a result of local obstruction of the flow. c) natural scour is the scour of a streambed resulting from natural phenomena, such as channel meandering.
Sealed	a gravel Highway surface on which emulsified oil and aggregate has been alternatively spread, including compaction for particle set, building up an asphaltic pavement layer. or/ a paved Highway surface on which asphaltic products have been used to seal cracks, extend life expectancy of the paved Highway and create a skid resistant surface.
Services	has the same meaning as defined in Article 1of the Highway Maintenance Agreement.
Severity	has the same meaning as defined in the Pavement Surface Condition Rating Manual.
Shim	to support, level, or adjust the fit by using thin, often tapered pieces of material.
Shoulder	the area between the edge of the outside traffic lane and the ditch, including the following components: Shoulder top, Shoulder edge, and Shoulder side slope. Furthermore, the Shoulder edge is the breakpoint between the Shoulder top and the Shoulder side slope.
Shoving	a longitudinal displacement of a localized area of a pavement surface, generally caused by braking or accelerating vehicles and usually located on hills and at intersections.

Sight Distance

driver visibility of the Highway, Signs and intersections at minimum distance to safely drive the Highway at these locations.

a) for the purposes of removing all movable obstructions (i.e. brush, tall grass, abandoned vehicles, etc.) from the Highway Right-of-way, the following minimum Sight Distances will be met:

i) for vehicles traveling on any traveled portion of a Highway:

Summer Highway Classification	Minimum Highway Sight Distance
1, 2, 3	330 m
4 & 5	200 m
6 & 7	75 m

ii) for vehicles stopped at an intersection a distance of 2 metres behind the applicable legal stopping location for the highway at that point and intersection, visibility in both directions to the traveled portion of the Highway will be:

Summer Highway Classification	Minimum Highway Sight Distance
1, 2, 3	300 m
4 & 5	200 m
6 & 7	100 m

iii) or vehicles on the traveled portion of the Highway the minimum Sight Distance to Highway signs will be:

Summer Highway Classification	Minimum Highway Sight Distance
1	500 m
2 & 3	300 m
4 & 5	150 m
6 & 7	75 m

b) Sight Distance for traffic control requirements will be defined as the length of unobstructed Highway visible to the driver and the following values (as a function of the posted speed limit) will be the minimum distances acceptable to the Province. Sight Distance less than set out below will require additional control as defined in the Traffic Management Manual for Work on Roadways (TMM):

50-70 kilometres per hour	100 metres
80-90 kilometres per hour	170 metres
100-110 kilometres per hour	250 metres
120 kilometres per hour	300 metres

Sign(s)

a lettered board, message or other display which includes all regulatory, warning, guide or informational, advisory, construction and maintenance, route markers and all special or other messages/displays under the Provincial jurisdiction as defined by the Province but excluding electronically controlled messages/displays; a sign includes the Sign Face Overlay.

Sign Bridge(s)

an overhead sign support structure, typically of truss construction, with the horizontal member either supported at both ends or cantilevered over the Traveled Lanes. Type L, M, or H Galvanized post davits are not considered to be sign bridges.

Sign Face Overlay

the layer of the Sign which contains the message, and which is applied to the aluminum, wood or steel sign.

Sign System

includes all regulatory, warning, guide or informational, advisory, construction and maintenance, route marker Signs, Sign Bridges, avalanche gates, delineators, hazard markers, Signs, Sign Face Overlay, posts, hardware (i.e. nuts, bolts, washers, rivets, etc.) and all special Signs, under other Provincial jurisdictions, as defined by the Province but excluding electronically controlled signage.

Sill

horizontal structural member set directly on the ground surface, or embedded only to a firm surface level. Usually a temporary base for a temporary support (see False Bent) or bracing.

Sliding Plate Joints	an expansion Joint in which the opening is covered by a steel plate attached to only one side of the joint.
Slippery	any road condition which causes an increase in normal dry surface stopping distances as a result of a buildup of frost, ice, slush or snow.
Slough	collapse or slide of soil or rock into a hole or depression.
Slope Of Grain	the deviation of the line of fibres in a timber member from a straight line parallel to the sides of the piece.
Slump	a measure of the workability and flowability of concrete. Slump varies with water, air, and admixture content and the temperature of the concrete.
Snow Avalanche Technician	a snow avalanche technician designated by the Province as such.
Sod	a mat of grass roots and fibres containing earth and granular aggregate.
Spall	circular or oval depression in concrete resulting from separation of a portion of the surface, at a fracture. Usually part of the rim is perpendicular to the surface.
Specialty Fences	all fences other than those installed on Highways listed in Schedule 1 or Schedule 2 of the *Motor Vehicle Regulation*, B.C. Reg. 26/58 for which the Province is responsible, e.g., fences in Rest Areas, at bridge ends, etc.
Split	a through longitudinal separation of the wood cells at the end of a piece of lumber.
Stringer	longitudinal beams supporting the Bridge Deck, and in large Bridges or Trusses, framed into or upon the Floor Beams.
Structure	has the same meaning as defined in Article 1 of the Maintenance Agreement.
Substructure	Abutments, Piers, their Foundations and protective works which form the Substructure supporting the Superstructure above.
Summer Highway Classification	has the same meaning as defined in Article 1 of the Maintenance Agreement.
Superelevation	this is the vertical rise in elevation from the outside edge of a Highway surface, to the inside edge on a curving section of Highway.
Superstructure	the entire structure of a Bridge resting on the Piers and Abutments, consisting of Stringers, Decking, Trusses, sidewalks, Wearing Surface and railing.
Sway Brace	(i) a piece bolted or otherwise secured in an inclined position upon the side of a Pile or frame Bent between the Cap and Sills to add rigidity to the assemblage. (ii) a component of Bailey or Acrow Bridges, used to square each bay of the Bridge and prevent sway movements of the Bridge.
Temporary Patch	a temporary correction of pavement deficiencies to address safety issues.
Traffic Delay:	total stop time and travel time through the site.
Traffic Management:	one of the Maintenance Services, as described in Specification 5-470
Transom Clamps	these are vise-type clamps with a swinging bolt at one end, used on Bailey and Acrow Bridge structures to hold the Transom securely to the bottom Chord of Panels.
Transoms	the Deck supporting cross member in a Bailey or Acrow Bridge structure, spanning between the bottom Chords of the Panels in these Bridges.
Transverse Cracking	has the same meaning as defined in the Pavement Surface Condition Rating Manual.
Trash Rack	a pervious barrier constructed to catch Debris and prevent blockage of a Bridge or the inlet of a culvert or Multiplate.

Travelled Lane	the surface of a Highway: a) between the painted shoulder line on one side and the painted Shoulder line on the other side, or b) in the absence of Shoulder lines - from asphalt edge to asphalt edge, or c) in the absence of hard surfacing refer to the definition of Dirt and Gravel Highway. The travellable portions of Rest Areas, pullout areas, parking areas, Weigh Scale Areas, and any other vehicle-accessible portions within the Right-of-way are included.
Truss	a jointed Bridge structure having an open built web construction so arranged that the frame is divided into a series of triangular figures with its component straight members primarily stressed axially only.
Truss Rod	a vertical Tension Rod.
Underpass	a Bridge carrying a Highway beneath another feature including a Highway of less traffic volume.
Urban	within a Municipality as the term is defined in the *Local Government Act*, or within a distance of 3 kilometres of a municipal boundary, or extending out to the limit of residential or commercial development, whichever comes first.
Wane	bark or lack of wood from any cause, except eased edges, on the edge or corner of a piece of lumber.
Wash-boarding	transverse ridges, ripples or small bumps on a gravel/dirt Highway surface (right angles to travel), usually on hills or steeper sections, leading to very rough, vibrating or chattering ride.
Wearing Surface	the surface portion of a Bridge Deck directly in contact with the wheels of vehicles.
Weather Event	any meteorological condition that permits the development of Slippery surface conditions which requires the application of Winter Abrasive, anti-icing or De-icing Chemicals and/or snow removal procedures to maintain or re-establish safe winter driving conditions.
Winter Abrasive	the sand or fine gravel applied to Highway surfaces during winter snow and ice conditions to provide traction for vehicles. May or may not contain De-Icing Chemicals.
Winter Accumulation	loose snow, slush, loose or broken compact snow and ice on the highway surface.
Winter Chemicals	material used to remove or assist the removal of ice and compacted snow from the pavement surface by chemical means.
Winter Highway Classification	has the same meaning as described in Article 1 of the Maintenance Agreement.

SCHEDULE “17”

LOCAL AREA SPECIFICATIONS

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #1

SA 11 HORIZONTAL DRAIN MAINTENANCE

1. OBJECTIVE

To maintain continued effectiveness of the drainage system for slide stabilization and frost heave drainage.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services
c) Materials and procedures requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Warranty requirements

There are 8 horizontal drain sites with a minimum of 1 drain per site and one with 21 drains. Refer to Appendix A for details and exact locations.

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) inspect all sites and drains annually;

b) notify the Province immediately of failures or safety concerns;

c) flush the drain casings of sediment and clean the slots and perforations to remove obstructions and caking annually;

d) collect and record data on flow rates, drain conditions and length of insertion by the cleaning tools immediately before and immediately after each annual flushing/cleaning;

e) remove Debris restricting access to horizontal drain sites within 14 days from the time the deficiency was detected by or reported to the Contractor;

3.2 Quantified Maintenance Services and Performance Time Frames

The Contractor must:

a) clear vegetation around drain outlets and collector system cleanouts ensuring vegetation does not exceed 20 cm or density to impede drainage;

b) repair and/or reconstruct collector systems and drains as required within 30 days from the time the deficiency was detected by or notified to the Contractor.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

The Contractor must use materials:

a) in accordance with the Standard Specifications for Highway Construction; or

b) from the most recent version of the Recognized Products List; or

c) as approved in writing by the Province.

4.2 Warranty

Not applicable to this Local Area Specification.

Local Area Specification # 1
Appendix A
List of Horizontal Drains Sites

Highway #	LKI Segment	LKI Distance	LKI Offset Meters from centre line	RFI Landmark	RFI Offset (km)	Location	Comments
Hwy 95A	2115	53.45	-6.5 m	6300	1.4	Sand Hill	
Rte 95A	2115	15.73	+6.0	6000	0.050	Portious Rd	Frost heave drain north of Portious Road
Rte 3/93	1385	19.205	+6.0	3705	2.407	Steamboat Hill	
Rte 3/95	1380	43.489	+4.0/7.2	3315	0.800	Moyie Bluffs	1 Drain 2-300mm Dia x 540 meters, c/w 6 manholes and 2 clean outs
Rte 3	1395	24.714	+10.0	4719	3.413	Fernie Slide	21 drains, 1 km west of ski hill turn off
Rte 3	1395	76.74	+6.0	5290	.0.984	Sparwood Scale	1 Drain at Sparwood Scale
Road #26	N/A	N/A	N/A	N/A	N/A	Corbin Rd	6 Drains approx. 1 km from Hwy # 3
Hwy 93/95	2140	60.34 to 60.42	Lined ditch - 4.3m; Embankment drains +2.5m	6251 Columbia Rd N	20.055 to 20.140	Coys Hill Slump	Coys Hill Slump: 2 x 150mm CSP embankment drains 2.5m deep with outfalls; Twin 150mm PVC perforated pipe x 80m long and geo-membrane lined ditch

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #2

SA 11 Salt Shed Maintenance and Salt Management

1. OBJECTIVE

To ensure the safe delivery and containment of salt, and conduct annual inspections and minor maintenance of salt sheds.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Quantified Maintenance Services
c) Materials requirements
d) Warranty requirements

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must, in addition to the salt management plan contained in the Contractor's Quality Management Plan:

a) off load all salt deliveries on the asphalt surface in or in front of the salt shed and push them up with a loader;

b) park and load all trucks being loaded with Winter Abrasive or salt on the asphalt surface if provided;

c) in facilities that have paved storage pads, store all Winter Abrasive containing salt on the asphalt surface and stock pile it in a fashion as not to spill over the lock block containment walls;

d) in facilities that have paved storage pads, not allow Winter Abrasive produced within the pit that has salt added to it or salt to be in direct contact with the pit floor; a containment system for the treated sand is required for the discharged material;

e) carry salt transported off the asphalt containment pad in a fashion as to prevent spillage on to the pit floor;

f) have a spill proof apron for salt hoppers used in the production of Winter Abrasives such as a tarp or plywood to prevent salt from reaching the pit floor and/or to facilitate the retrieval of salt that does reach the pit floor;

g) when applicable monitor water in the containment pond and prevent it from over flowing the containment, note that water from the containment pond can be used for sweeping, grading and compaction;

h) when applicable not allow anyone inside the fenced pond;

i) make sure salt and salt contaminated mud, slush and sand does not leave the containment asphalt or come in contact with the pit floor;

j) not allow slush and salt contaminated sand/mud to be tracked or flow off the asphalt surface, undertake plowing, scraping or otherwise directing this contaminated material to the containment pond when one is present as and when required;

k) inspect the asphalt surface annually and report any defects (cracks, chipped edges, Pot holes or base failure) to the Province;

l) when applicable immediately report to the Province, any damage caused by the contractor operations or by other means to the fencing, pond liner, berm or pond; repair these at the contractor's expense to the satisfaction of the Ministry;

m) remove any salt or salt contaminated material found on the pit floor immediately to a depth of 400mm deep and dispose of it, report any spill to the Ministry upon happening;

n) at least annually inspect the fabric roof, side walls, back wall and vents of any fabric salt shed structures for minor tears;

o) at least annually inspect the structural components of any fabric salt shed structures: trusses, purlins, cross bracing wire, base plates and fabric lashing winches/tension brackets to assess their condition;

p) at least annually inspect the lock blocks of any fabric salt shed structures for settling or misaligned blocks;

q) at least annually inspect the paved surface of any salt shed structures for settling, wash out or ponding;

r) At least annually inspect the evapotranspiration liner surface for compact or water ponding; loosen, replace if required and re-grade evapotranspiration surface area annually to prevent drainage run off and to ensure optimum absorption into the evapotranspiration bowl;

s) Continually monitor evapotranspiration water/brine levels and pump out as required to prevent saturation.

4. MATERIALS, PROCEDURES AND WARRANTY

Not applicable to this Local Area Specification.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #3

WATER SYSTEM MAINTENANCE

1. OBJECTIVE

To ensure a safe drinking water supply at Rest Areas.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Materials and procedures requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Quantified Maintenance Services
c) Warranty requirements

This service is required at two Rest Areas: Coy's and Rampart.

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) collect water samples in accordance with the Health Authority sampling instructions weekly from May 1st through October 31st and monthly from November 1st to April 30th;

b) deliver samples to the Interior Health Unit in Cranbrook, BC immediately upon taking the samples;

c) perform shocking and flushing of the water systems in accordance with the Health Authority procedures outlined in Appendix A at least once annually, in the spring;

d) if unacceptable levels or coliforms or E.coli are detected,

i) post advisory Signs, warning the public that the water is not safe to drink immediately;
ii) identify and eliminate the source of contamination immediately;
iii) perform shocking and flushing of the water system in accordance with the Health Authority procedures outlined in Appendix A immediately;

e) report issues regarding water quality immediately to the Environmental Health Officer and to the Ministry.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

The Contractor must use only the sterile bottles, and other materials, as specified by the Health Authority.

4.2 Warranty

Not applicable to this Local Area Specification.

APPENDIX A

SHOCKING AND FLUSHING PROCEDURES

For routine annual well shocking and flushing, follow steps 1 through 4.

If test results show an unacceptable level of coliforms or E.coli, follow steps 1 through 7.

Materials:

Shocking may be done using unscented household bleach. Table 1 outlines the quantity of bleach required to properly shock/disinfect new and existing wells.

Table 1: Shocking of Well Water with Unscented Household Bleach (Approximately 5.2% Hypochlorite)

Depth of water in well	Volume of bleach added			
	Casing diameter 15 cm (drilled)		Casing diameter 90 cm (dug)	
	New well*	Existing well*	New well*	Existing well*
1.0 m	100 mL	20 mL	3.2 L	0.6 L
3.0 m	300 mL	60 mL	9.8 L	2.0 L
5.0 m	500 mL	100 mL	16.5 L	3.0 L
10.0 m	1000 mL	200 mL	32.0 L	6.5 L

- New wells require a chlorine concentration of 250 parts per million (ppm) for effective disinfection, whereas existing wells require 50 ppm chlorine.
- Both Rampart and Coy's Rest Areas are estimated to have 5 to 10 meters of water in the well. The Contractor must verify depths prior to treatment.

Steps:

1. Shut water system down to public use. Add the amount of unscented bleach determined in Table 1 to the bottom of the well and then agitate the water. Wash down the inside wall of the well with fresh clean water. This will ensure thorough mixing of the chlorine and the water throughout the well.
2. Bleed air from the pressure tank (if non bladder style tank) and start the pump. Open each tap and allow the water to run through all taps until a smell of chlorine is detected, then turn off the taps. If a strong smell is not detected, add more bleach to the well.
3. Allow the water to sit in the system for 12-24 hours.
4. Start the pump and run water through the outside hose bib or inside bib until the strong smell of chlorine disappears. Keep hose away from grass, shrubbery and septic fields; ensure no water enters any watercourses. Open the indoor taps until the system is completely flushed. Pressurize the water tank (if non bladder style tank).

If shocking and flushing procedure is as a result of unacceptable level of coliforms or E. coli, the Contractor must continue with steps 5 through 7.

5. Wait 48 hours after flushing then sample the water using the instructions and bottle provided by the laboratory. Repeat water testing in one week.
6. After two consecutive "safe" tests, remove boil water advisory Signs and resume regular water sampling schedule.
7. If the above steps do not result in acceptable testing results, notify the Ministry immediately.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #4

VEHICLE INSPECTION STATION MAINTENANCE

1. OBJECTIVE

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

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services
c) Materials and procedures requirements
d) Warranty requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap

There are 2 Vehicle Inspection Stations in the Service Area: Sparwood and Yahk. Maps of their locations can be found in Appendix A.

The Maintenance Contractor is NOT responsible for the buildings or for the management and maintenance of the water and septic systems.

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) perform all Routine Maintenance Services that are described in the Maintenance Specifications within the Vehicle Inspection Station area at the same Performance Time Frames as the adjacent Highway Class;

3.2 Quantified Maintenance Services

The Contractor must:

a) perform all Quantified Maintenance Services that are described in the Maintenance Specifications within the Vehicle Inspection Station area at the same Performance Time Frames as the adjacent Highway Class;

4 MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

Follow the requirements in the applicable section 4.1 for the individual Maintenance Specifications.

4.2 Warranty

Follow the requirements in the applicable section 4.2 for the individual Maintenance Specifications.

Appendix A
Inspection Station Locations

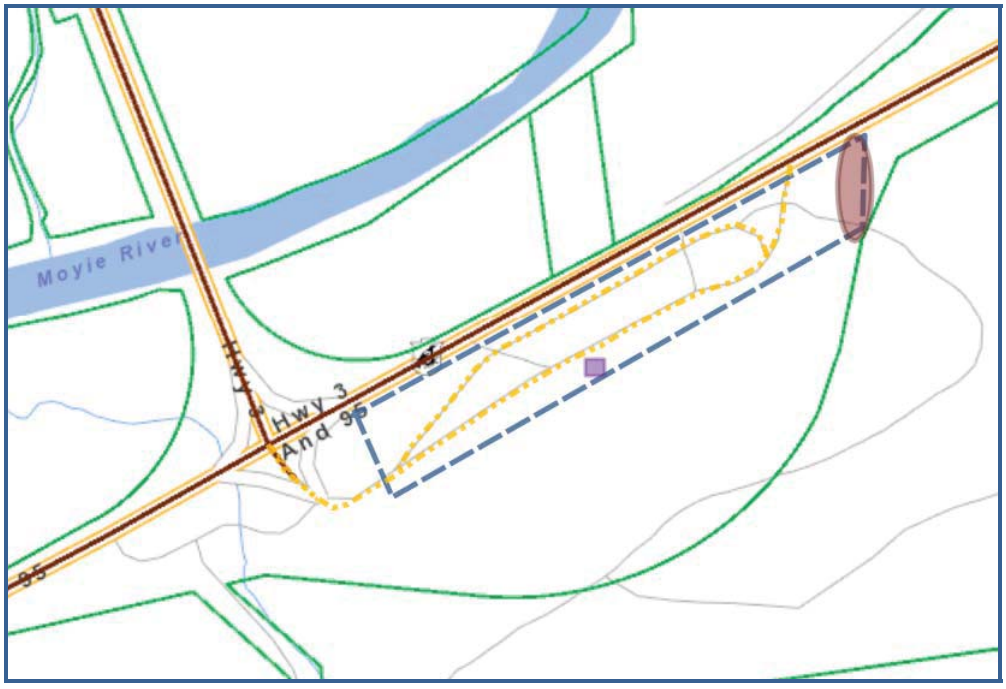
Sparwood Inspection Station:

red = property boundary
red pin = scale building
Brown line = road

Information

Lane kilometres = 0.820 km
Area for clearing = 6930m² (110 mx63 m)

Yahk Inspection Station:



green = property boundary
dashed blue = area for clearing
purple square = scale building
pink oval = area for snow storage
dot-dash line = road through inspection station

Information

Lane kilometres = 1.608 km
Total Area = 21,168 m2 (378 m x 56 m)

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #5

HARTLEY CREEK MULTI-PLATE

1. OBJECTIVE

To keep the Hartley Creek multi-plate clear of obstructions in order to maintain continued water flow and effectiveness of the structure.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Quantified Maintenance Services
c) Materials and procedures requirements
d) Warranty requirements

Hartley Creek multi-plate is located on Highway 3, approximately three kilometres east of Fernie, B.C.

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) obtain all necessary permits required under current environmental and water legislation prior to performing the work;

b) monitor during high flow periods for bed load being deposited at the upstream and downstream ends of the culvert;

c) remove Debris, bed load, Winter Abrasives and sedimentation from the multi-plate and channel within the Ministry's Right-of Way at least on an annual basis, or as required, within the permitted environmental timeframes.;

d) dispose of Debris in a manner acceptable to local regulatory agencies and at locations approved by the Province;

e) ensure the multi-plate is flowing at freshet flow capacity;

4. MATERIALS, PROCEDURES AND WARRANTY

Not applicable to this Local Area Specification.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #6

TIMBER AND LOG STRUCTURE MAINTENANCE

1. OBJECTIVE

To preserve the durability and load carrying capacity of timber and log structures.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services
c) Materials requirements
d) Warranty requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap

There are 6 Timber and Log Structures:

Structure Name	Structure Number	Location
Cummings Cr. Bridge	06785	Rosen Lake Road 49° 23'44.76N 115° 14'58.69W
Davis Road Bridge	06783	Davis Road 49° 0'11.72"N 115° '35.72W
Frances Bridge	00522	Westside Road 50° 35'23.31N 116° 7'56.48"W
Red Cr. Canyon Bridge	06782	Elko Grasmere Road 49° 8'49.73"N 115°5'36.31"W
St. Marys Wycliffe Bridge	00048	Wycliffe Park Road 49° 35'58.28N 115° 52'2.40"W
Wilmer Pontoon Bridge	00719	Wilmer Pontoon Road 50° 32'32.62"N 116° 1'17.58"W

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) maintain and repair timber and log structures and associated components considered unsafe or have the potential to become unsafe;

b) notify the Province immediately so that the Bridge Structural Engineer can be assigned to assess the deficiency and risk of structural failure;

c) respond immediately if the Bridge Structural Engineer determines that there is risk of structural failure under loading, by doing one of the following, as approved in writing by the Province:

i) restrict allowable loading on the Bridge;

ii) close the Bridge to all vehicular traffic; or

iii) close the Bridge to all use; ensure that the durability and load carrying capacity of the structure is maintained while repairing the structure;

d) commence repairs within 2 days after receiving instructions from the Bridge Structural Engineer, except where the damage will require complete re-construction as determined by the Province, unless mutually agreed by the Contractor and the Province;

e) complete maintenance and repairs, from the time the deficiency was detected by or reported to the Contractor, as follows:

Activity	Highway Classification	
	1, 2 & 3	4, 5, 6 & 7
repair timber or log Stringers, Brow Logs, Needle Beams and Caps	3 months	6 months
repair Braces and other structural components	3 months	6 months
install temporary support	3 months	6 months
tighten loose timber joints, bolts, fastenings, cables and other structural components	1 months	4 months

f) bolt Brow Logs (not cable-wrap them) to the log Stringers or Needle Beams.

3.2 Quantified Maintenance Services

The Contractor must:

a) replace timber and log Stringers, Brow Logs, Needle Beams and timber Caps where maintenance and repair will not restore the original design function as determined by the Bridge Structural Engineer;

b) construct temporary support, in a manner approved in writing by the Province, when replacing timber Stringers, Caps and Braces;

c) complete the replacement, from the time the deficiency was detected by or reported to the Contractor, as follows:

Maximum Response Times		
	Highway Classification	
	1, 2 & 3	4, 5, 6 & 7
replace timber or log Stringers, Brow Logs, Needle Beams and Caps	3 months	6 months

Notes: 1. The Contractor will not be responsible for replacing Laminated Stringers.

2. The Contractor will not be responsible for replacing timber or log stringers associated with complete Bridge replacement, unless mutually agreed between the Contractor and the Province.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

Unless directed by the Province, the Contractor must use materials and procedures:

a) in accordance with the Standard Specifications for Highway Construction; or

b) from the most recent version of the Recognized Products List; or

c) as approved in writing by the Province.

d) replace timber material with preservative-treated Douglas Fir timber of the following standard sizes, unless otherwise approved by the Province in writing;

i) timber Stringers, 150 mm x 400 mm (6 inch x 16 inch) select structural grade or as specified or directed by the Province;

ii) timber Caps, Sills 305 mm x 305 mm minimum (12 inch x 12 inch) Number 1 grade;

iii) timber Box Beam Caps 305 mm x 355 mm (12 inch x 14 inch) Number 1 grade; and

iv) logs for structural repair must be cut from live Cedar or Douglas Fir species, and must be cut in mid-winter and allowed to cure for a minimum of 30 days prior to peeling and placing, unless otherwise approved in writing by the Province.

Note: If no procedures are specified, the approach and standard of workmanship must be in accordance with normally accepted best practice and approved in writing by the Province; and

4.2 Warranty

Timber and log structure component replacements is warranted in accordance with the Introduction to the Maintenance Specifications, paragraph D.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #7

TIMBER TRUSS BRIDGE MAINTENANCE

1. OBJECTIVE

To provide safety, durability and proper load carrying capacity of timber Truss Bridges, including preserving the functional life of the structures.

2. SCOPE

2.1 Applicable for this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services
c) Materials and procedures requirements

2.2 Not Applicable for this Specification:

a) Routine Maintenance Services Cap
b) Warranty requirements

This service is required at St. Mary's Wycliffe Bridge (structure number 00048) located:

- Start: Latitude 49 Degrees, 35 Minutes, 55.9716 Seconds
  Longitude 115 Degrees, 52 Minutes, 2.1396 Seconds
- End: Latitude 49 Degrees, 35 Minutes, 59.9028 Seconds
  Longitude 115 Degrees, 52 Minutes, 2.7372 Seconds

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) maintain and repair deteriorated timber Truss Bridges and associated components;

b) respond immediately if the Bridge Structural Engineer determines that there is risk of structural failure under loading, by doing one of the following, as approved in writing by the Province:

i) restrict allowable loading on the Bridge;
ii) close the Bridge to all vehicular traffic;
iii) close the Bridge to all use; and

c) secure Flashing and tighten, repair or replace all fastening hardware;

d) treat all freshly sawn or drilled timber members with preservatives;

e) repair timber Truss Portals and repair or replace deteriorated cast components;

f) replace Flashing that is torn, missing or otherwise required to be installed for protection of the structure;

g) Camber top and bottom Laminated Chords by tightening all Truss Rods evenly and systematically until all Counter Braces are bearing at both ends; the procedure for doing so must be approved in writing by the Province;

h) tighten all Lateral Rods evenly to maintain a straight and uniform Chord line;

i) immediately commence maintenance repairs after receiving instructions from the Province, except where the damage will require complete re-construction of the structure as determined by the Province; and

j) complete the repair, from the time the deficiency was detected by or reported to the Contractor, as follows:

Component and Damage		Action and Maximum Response Time
i)	torn, loose or missing Flashing	repair or replace within 6 m
ii)	Flashing not previously installed	install within 12 m
iii)	non-structural damage or deterioration to Portals, Braces and lateral Braces	repair within 6 m
iv)	damaged or loose Truss Rods; damaged, loose, or missing fasteners	repair within 2 m
vi)	adjusting the Camber	as required

Legend: m – months

k) refrain from excessive tightening of Truss Rods in an attempt to lift more Camber into the Truss; in the event that the Chord Cambers are not smooth or even in profile after all Counter Braces are bearing both ends, the Province may require the Contractor to Shim and/or cut Counter Brace lengths;

l) refrain from patching, welding or splicing, unless a procedure is prepared by a Professional Engineer retained by the Contractor and approved in writing by the Province.

3.2 Quantified Maintenance Services

The Contractor must replace Truss Rods or Lateral Rods, or deteriorated End Posts, Main Braces, Counter Braces, Floor Beams and/ or corbels within 2 months from the time the deficiency was detected by or reported to the Contractor.

Notes: 1. The Contractor will not be responsible for replacing structural members associated with complete Bridge replacement or complete replacement of either top or bottom Chords unless mutually agreed between the Contractor and the Province.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

Unless directed by the Province, the Contractor must use materials and procedures:

a) in accordance with the Standard Specifications for Highway Construction; or

b) from the most recent version of the Recognized Products List; or

c) in accordance with the same type and quality on the existing structure; or

d) as approved in writing from the Province.

Note: If no procedures are specified, the approach and standard of workmanship must be in accordance with the normally accepted best practice and approved in writing by the Province.

4.2 Warranty

Not applicable to this Specification.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #8

RUNAWAY LANE MAINTENANCE

1. OBJECTIVE

To provide a safe operating environment for Highway Users.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Materials and procedures requirements
c) Warranty requirements

There are two runaway lanes in the Service Area, both on Fording Mine Road, in the following locations:

- 50º 1'55.81" N 114º 54'32.58'W
- 50º 2'22.28" N 114º 54'1.19"W

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) remove snow on the full width of the runaway lane, ensuring that accumulations do not exceed 25.0 cm; and

b) perform Debris Removal in accordance with the Performance Time Frames for a Class 7 Highway.

3.2 Quantified Maintenance Services and Performance Time Frames

The Contractor must:

a) perform surface Grading at least once annually; and address deficiencies within 15 days from the time the deficiency was detected by or reported to the Contractor;

b) perform Gravelling to address deficiencies in accordance with the Performance Time Frames for a Class 7 Highway;

c) perform Brushing and Danger Tree Removal in accordance with the Performance Time Frames for a Class 7 Highway.

4. MATERIALS, PROCEDURES AND WARRANTY

Not applicable to this Specification.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #9

CONTROL OF INVASIVE PLANTS

1. OBJECTIVE

To minimize the spread of Invasive Plants.

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Materials and procedures requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Quantified Maintenance Services
c) Warranty requirements

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) meet with the agency conducting Invasive Plant management for the Ministry (Regional Invasive Species Committee, Local Government or Contractor) in the Service Area at least once during the annual work planning stage to discuss and coordinate timelines and locations of planned activities;

b) consider Invasive Plants when planning and performing vegetation control activities; plan to mow prior to development of seed and skip areas where Invasive Plants have already gone to seed provided that not mowing does not present a sightline or other safety issue;

c) ensure that Knotweed species are not disturbed at any time during the year, provided that not mowing does not present a sightline or other safety issue. If disturbance is required the Contractor must contact the Ministry's Invasive Plant contractor to ensure the best practices are followed. Soil containing knotweed roots or plant material must be handled carefully and disposed of at a location approved in writing by the Province.

d) The Contractor may, with prior written approval by the Province, use herbicides as a control measure for knotweed or other Invasive Plant species. A certified applicator must apply the herbicide in accordance with the relevant Ministry Pest Management Plan and the BC Integrated Pest Management Act; be coordinated with the agency conducting invasive plant management for the Ministry on an annual basis. The locations and amounts of all herbicide use shall be submitted to the Ministry prior to December 15 of each year for reporting to the Ministry of Environment.

e) report Invasive Plants online via Report a Weed at https://www.for.gov.bc.ca/hra/invasive-species/index.htm;

f) dispose of material containing Invasive Plant propagules at a location approved by the Province and advise the Province immediately after disposal so that the sites may be monitored and treated if required to prevent further spread;

g) the Contractor must pick up and dispose of bags containing Invasive Plant material collected as part of the Ministry's Adopt a Highway program, in addition to the bags of litter, and dispose of at a landfill.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

The Contractor must follow the Best Practices for Managing Invasive Plants on Roadsides Manual.

The Contractor must follow Section 757 (Revegetation Seeding) of the Standard Specifications for Highway Construction when reseeding an area.

When choosing a source of gravel materials, the Contractor must consider Invasive Plants and ensure that material containing Invasive Plant propagules is not used for any maintenance activity unless there is no suitable material available within a reasonable distance from the project area. If material contaminated with invasive plants must be used, Best Practices must be followed to minimize the spread. Material containing knotweed species roots or stems must not be used at any time for any reason.

Herbicide use is restricted to Invasive Plants and must not be used for general vegetation management.

4.2 Warranty

Not applicable to this Local Area Specification.

B.C. MINISTRY OF TRANSPORTATION& INFRASTRUCTURE

Local Area Specification #10

SA 11 WILDLIFE DETECTION SYSTEM MAINTENANCE

1. OBJECTIVE

To maintain continued effectiveness of the electronic Wildlife Detection Systems (WDS).

2. SCOPE

2.1 Applicable to this Specification:

a) Routine Maintenance Services
b) Quantified Maintenance Services
c) Materials and procedures requirements

2.2 Not Applicable to this Specification:

a) Routine Maintenance Services Cap
b) Warranty requirements

There are 2 wildlife detection zones along two corridors on Crowsnest Highway # 3. Zone 1 (Elko) is approximately 2.6 km long and is located on Highway # 3 starting approximately 2 km east of the Highway #3 and Highway #93 junction and ending near Spring Creek Road approximately 4.5 km east of Elko Junction. Zone 2 (Michel) is approximately 5.5 km long starting east of the Hwy #43 intersection at Sparwood and ending at the Michel Old Town Bridge.

3. PERFORMANCE SPECIFICATIONS

3.1 Routine Maintenance Services and Performance Time Frames

The Contractor must:

a) upon detection by or notification to the Contractor, clear ice or snow from the surface of the Confirmatory sign within 24 hours using a broom or other brushing device to ensure that sign and message is clearly visible (especially in the location of the LED brick signboard;

b) clean the surface of the signage at least once annually, within 1 month of the end of the winter season. In addition, signs that become obscured by dirt or grime must be washed within 24 hours of detection by or notification to the Contractor;

c) notify the Province immediately if the WDS is not functioning when wildlife are observed in the WDS area;

d) notify the Province immediately if there is visible damage or equipment failure within the WDS area;

e) notify the Province immediately if the WDS is activating the Confirmatory Signs when there are no signs of wildlife in the area

3.2 Quantified Maintenance Services and Performance Time Frames

The Contractor must:

a) remove any trees and brush throughout the wildlife detection zones as described above which could cause sight distance obstruction to the cameras or radar equipment.

4. MATERIALS, PROCEDURES AND WARRANTY

4.1 Materials and Procedures

The Contractor must follow the Wildlife Detection Zone Best Management Practices document.

4.2 Warranty

Not applicable to this Local Area Specification.