

SCHEDULE "11"

EQUIPMENT REQUIREMENTS

The equipment requirements in this Schedule (which, for greater certainty, includes the appendices attached hereto) are the minimum standards for the operation of the Contractor's equipment fleet. This Schedule applies to vehicles and equipment (including both Contractor-owned, leased, subcontracted, hired or rented vehicles and equipment) used by the Contractor in the performance or inspection of activities related to performing the Services, including vehicles and equipment used to transport workers to and from locations where Services are to be, or were, performed.

1. Definitions

1.1 In this Schedule, unless the context otherwise requires:

- (a) **"Stripes"** means light retro reflective high conspicuity markings diamond grade ASTM 9 that are 3 inches in width in an alternating red and white pattern affixed directly onto Operational Vehicles and Equipment;
- (b) **"Surfaces"** means light retro reflective high conspicuity markings hi-intensity grade ASTM 3 or diamond grade ASTM 9 in a checkerboard/harlequin pattern with a minimum of 3 rows and 3 columns of alternating black and yellow-green squares between 200 mm and 300 mm wide affixed directly onto the rear of Operational Vehicles and Equipment;
- (c) **"Display Panels"** means light retro reflective high conspicuity markings hi-intensity grade ASTM 3 or diamond grade ASTM 9 in a checkerboard/harlequin pattern with a minimum of 3 rows and 3 columns of alternating black and yellow-green squares between 200 mm and 300 mm wide mounted on a smooth, flat, ridged surface (composed of materials such as aluminum or plywood), which is affixed to the rear of Operational Vehicles and Equipment used for Winter Services; and
- (d) **"Operational Vehicles and Equipment"** means vehicles and equipment (including both Contractor-owned, leased, subcontracted or hired vehicles and equipment) used by the Contractor in the performance or inspection of activities related to performing the Services, including vehicles and equipment used to transport workers to and from locations where Services are to be, or were, performed.

2. General Requirements

- 2.1 The terms of this Schedule are in addition to, and not in substitution for, the other provisions of the Highway Maintenance Agreement, including, but not limited to, Schedule 12 ("Commercial Vehicles Permit Agreement").
- 2.2 Operational Vehicles and Equipment shall conform to Division 4 of the Motor Vehicle Act Regulations (B.C. Reg. 26/58).
- 2.3 Operational Vehicles and Equipment shall:
 - (a) be painted at least 80% Sherwin-Williams school bus yellow or, if no longer available, a similar colour as selected by the Province, in its sole discretion;

- (b) have high conspicuity markings described in section 3 of this Schedule; and
 - (c) have the lighting described in section 4 of this Schedule.
- 2.4 Operational Vehicles and Equipment shall display the Contractor's company identification which shall:
- (a) be retro reflective engineering grade ASTM 1 at a minimum;
 - (b) have lettering 50mm in height or greater; and
 - (c) be placed in accordance with Appendix A, item 3, Appendix B, item 12 and Appendix D, item 3.
- 2.5 Contractors and their employees shall not use personal vehicles as Operational Vehicles or Equipment, unless the personal vehicles conform to the requirements outlined in this Schedule.
- 2.6 Leased, subcontracted, hired or rented Operational Vehicles and Equipment that is operating for:
- (a) less than 180 days in a calendar year, shall comply with the Traffic Management Manual for Work on Roadways; or
 - (b) 180 days or more in a calendar year or is used at any time during a calendar year for Winter Services, shall comply with all requirements of this Schedule, except the colour requirement in subsection 2.3(a) of this Schedule.
- 2.7 Operational Vehicles and Equipment when in use for Winter Services shall have:
- (a) a functional airfoil attached horizontally to the top rear covering the full width of the Operational Vehicle or Equipment as shown in Appendix B, item 14 and Appendix C, item 9; and
 - (b) flags in accordance with Schedule 12 ("Commercial Vehicles Permit Agreement") and as shown in Appendix B, item 2, Appendix C, item 7 and Appendix D, item 1.

3. High Conspicuity Marking Requirements

- 3.1 Operational Vehicles and Equipment shall have Stripes on at least 70% of the body length and Stripes or Surfaces on at least 70% of the rear width of the Operational Vehicle or Equipment as shown in Appendix A, items 2 and 4, Appendix B, item 7, Appendix C, item 1 and Appendix D, item 8.
- 3.2 Stripes shall be placed at a minimum of 1 metre above the ground level, as shown in Appendix A, item 2, Appendix B, item 7, Appendix C, item 1 and Appendix D, item 8.
- 3.3 Additional Stripes may be placed on Operational Vehicles and Equipment at other heights dependent on the configuration of the Operational Vehicles and Equipment to provide for optimum perception of the Stripes, as shown in Appendix B, item 7, Appendix C, item 1 and Appendix D, item 8.
- 3.4 Operational Vehicles and Equipment when in use for Winter Services shall have:

- (a) if equipped with a plow wing blade, Stripes on the push-arm support for all plow wing blades in a location where it is visible when the plow wing blade is in use and when it is not in use; and
- (b) a Display Panel, which shall fill the rear of such Operational Vehicles and Equipment as shown in Appendix B, item 18, Appendix C, item 12 and Appendix D, item 13, and shall not contain any wording that takes up more than 70% of the Display Panel.

4. Lighting Requirements

4.1 All Operational Vehicles and Equipment shall operate with a permanently mounted rotating beacon with 360 degree visibility as shown in Appendix A, item 1, Appendix B, item 5, Appendix C, item 2, and Appendix D, item 5.

4.2 Operational Vehicles and Equipment that are plow trucks, as shown in Appendix B, shall operate at all times with:

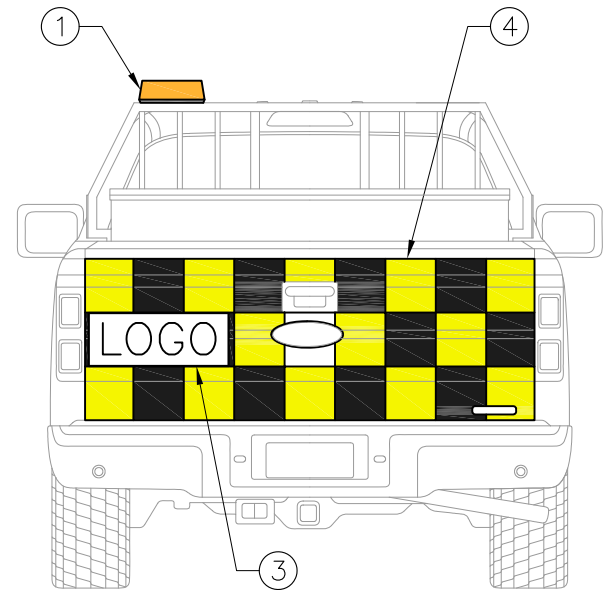
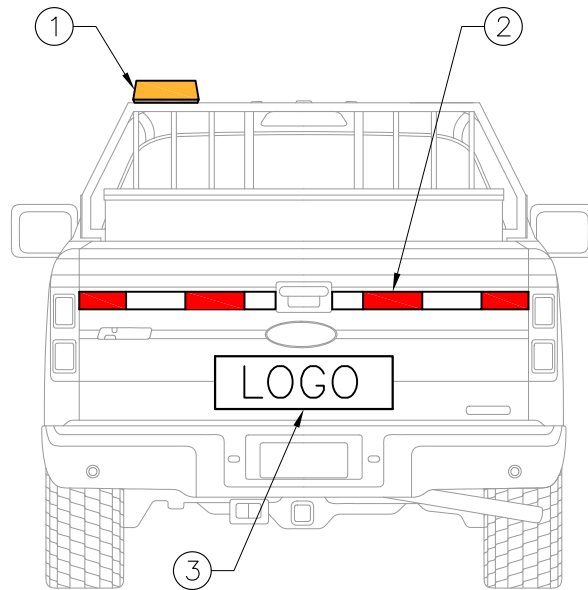
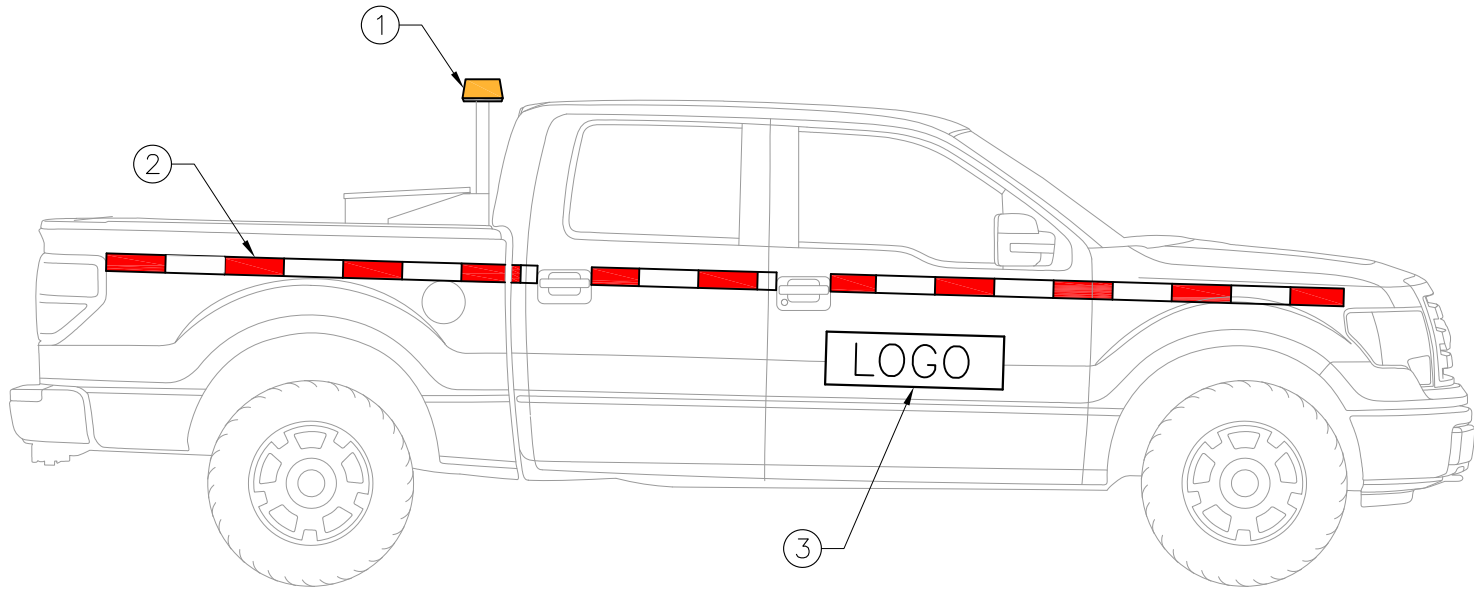
- (a) if equipped with a dump box, one amber dump box light mounted on the top of the dump box facing into the dump box, as shown in Appendix B, item 4;
- (b) white mid-side mounted, rear facing backup lights, as shown in Appendix B, item 11;
- (c) amber cab-mounted clearance lights, as shown in Appendix B, item 13;
- (d) red rear-mounted marker lights, as shown in Appendix B, item 16; and
- (e) amber side-mounted side facing marker lights, as shown in Appendix B, item 8.

4.3 Operational Vehicles and Equipment that are plow trucks, as shown in Appendix B, when in use for Winter Services shall have:

- (a) if equipped with a plow wing blade, rear and forward-facing flashing or strobing amber warning lights 100mm in size mounted to the top of the plow wing blade, as described in subsection 3.1(c)(ii) and section 3.1(e)(iv) of Schedule 12 ("Commercial Vehicles Permit Agreement") and shown in Appendix B, item 3;
- (b) forward facing auxiliary snow plow head lamps with signals in accordance with section 7 of Schedule 12 ("Commercial Vehicles Permit Agreement") and as shown in Appendix B, item 6;
- (c) a minimum of two rear-mounted pedestal tail and turning lights on the top left and on the top right affixed 150mm below the rear warning beacons described in subsection 4.2(d), as shown in Appendix B, item 15;
- (d) if equipped with a plow wing blade, one amber side-mounted wing plow light facing onto the wing blade, as shown in Appendix B, item 9;
- (e) if equipped with one or more underbody plow blades, side-mounted amber underbody plow light(s) facing down onto the road surface in front of each underbody plow blade, as shown in Appendix B, item 10;
- (f) one amber sander spinner/spray bar light, as shown in Appendix B, item 19; and

- (g) two rear-mounted, rear-facing flashing or strobing amber warning beacons on both the top left and on the top right that are 127mm to 178mm in diameter and 76mm to 152 mm in height from the body as shown in Appendix B, item 1.
- 4.4 Operational Vehicles and Equipment that are tow plows, as shown in Appendix C, shall operate at all times with:
- (a) amber flashing or strobing warning lights side mounted to the gate, as shown in Appendix C, item 3;
 - (b) one amber flashing or strobing warning light side-mounted to the frame, rear facing, as shown in Appendix C, item 6;
 - (c) one white rear-mounted, forward facing single beam head lamp, as shown in Appendix C, item 8;
 - (d) two rear-mounted, rear-facing flashing or strobing amber warning beacons on both the top left and on the top right that are 127mm to 178mm in diameter and 76mm to 152 mm in height from the body as shown in Appendix C, item 4;
 - (e) a minimum of two rear-mounted pedestal tail and turning lights on the top left and on the top right affixed 150mm below the rear warning beacons described in subsection 4.4(d) as shown in Appendix C, item 10; and
 - (f) amber side-mounted, side facing marker lights, as shown in Appendix C, item 5.
- 4.5 Operational Vehicles and Equipment that are graders, as shown in Appendix D, shall operate at all times with:
- (a) amber flashing or strobing intersection warning lights outward side facing, as shown in Appendix D, item 2;
 - (b) one white, side-mounted wing light facing the deployed plow wing blade as shown in Appendix D, item 4;
 - (c) two white head lamps with signals, as shown in Appendix D, item 6;
 - (d) four blade lights mounted on each side of the cabin and frame facing ahead and behind the underbody plow blade, as shown in Appendix D, item 9;
 - (e) two white cab-mounted, forward facing head lamps, as shown in Appendix D, item 10;
 - (f) two white rear-facing, body mounted back up lights, as shown in Appendix D, item 11; and
 - (g) two white cab mounted working lights as shown in Appendix D, item 12.
- 4.6 Operational Vehicles and Equipment that are graders, if equipped with a plow wing blade, as shown in Appendix D, when in use for Winter Services must have rear and forward facing flashing or strobing amber warning lights 100mm in size mounted to the top of the plow wing blade as described in subsection 3.1(c)(ii) and section 3.1(e)(iv) of Schedule 12 ("Commercial Vehicles Permit Agreement") and shown in Appendix D, item 7.

- 4.7 Operational Vehicles and Equipment when in use for Winter Services shall have light bars with flashing or strobing lights mounted on the outside edges of the Display Panel described in subsection 3.4(b) of this Schedule, as shown in Appendix B, item 18 and Appendix C, item 11 and Appendix D, item 14, that shall:
- (a) cover a minimum of 75% of the top edge and 75% of each side edge of the Display Panel;
 - (b) be a minimum of 51mm in width and 610mm in length per light bar, with each section of flashing lights within the light bar being a minimum of 38mm in width and 64mm in length; and
 - (c) alternate flashing or strobing sections of amber.
- 4.8 Sections 2.7(a), 3.4 and 4.7 do not apply to maintenance vehicles depicted in Appendix A.

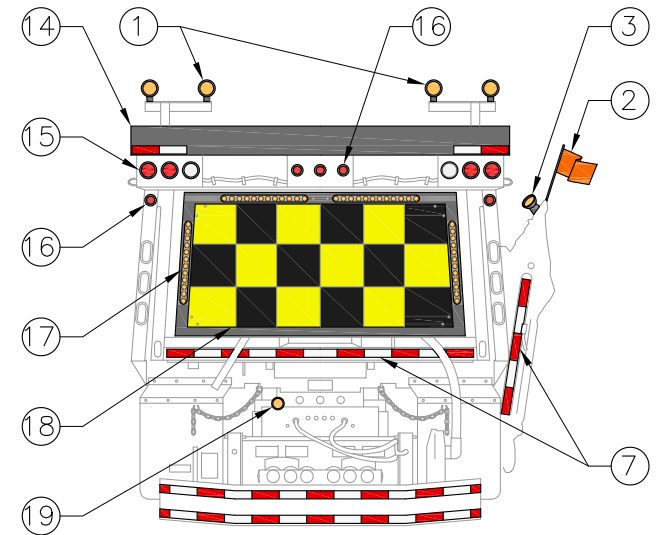
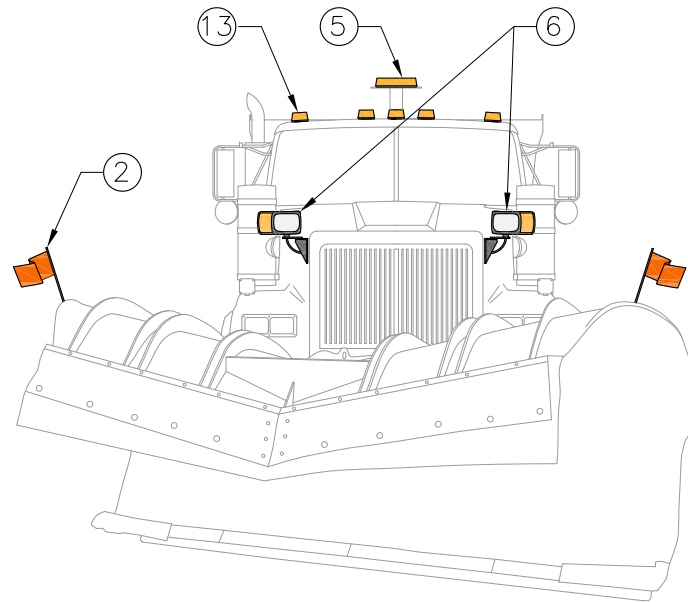
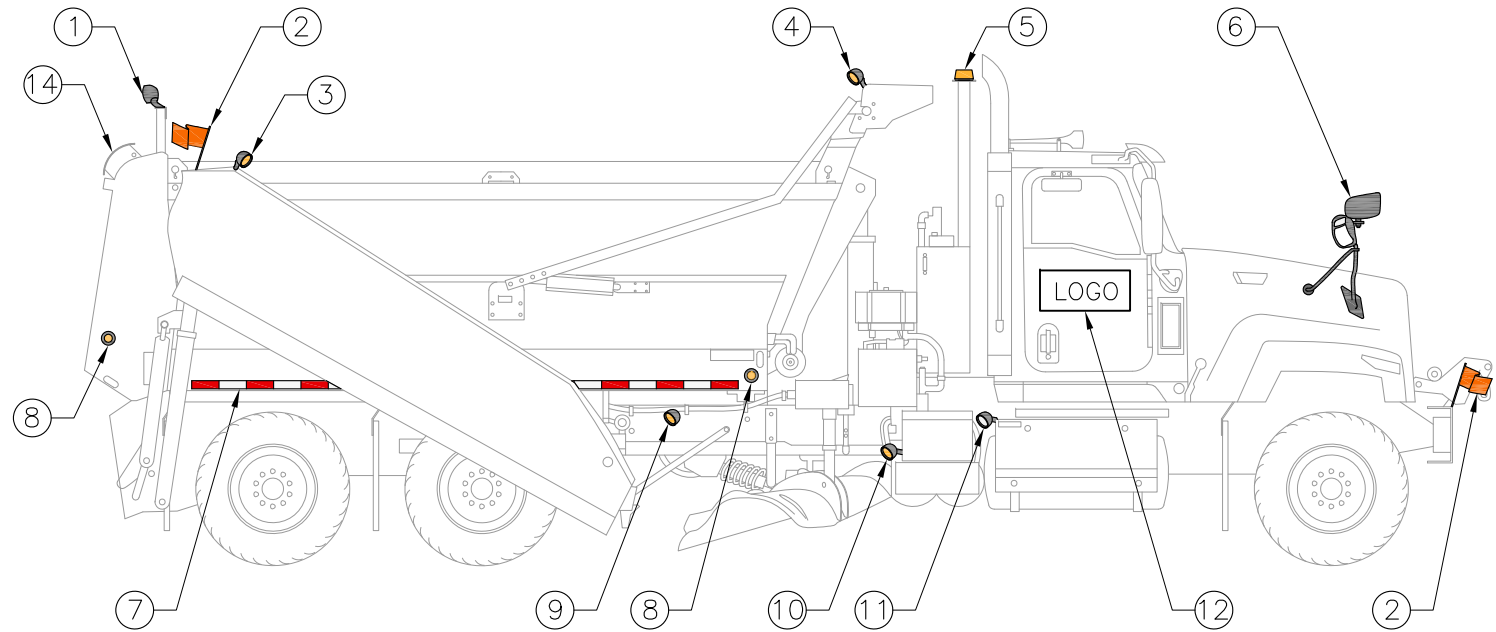


ITEM	DESCRIPTION
1	ROTATING BEACON
2	STRIPES
3	COMPANY IDENTIFICATION
4	SURFACE

SCALE N.T.S.		CAD FILENAME _____	
		DATE _____	
REV	DATE	REVISIONS	SIGNATURE



EQUIPMENT REQUIREMENTS
APPENDIX A
MAINTENANCE VEHICLE

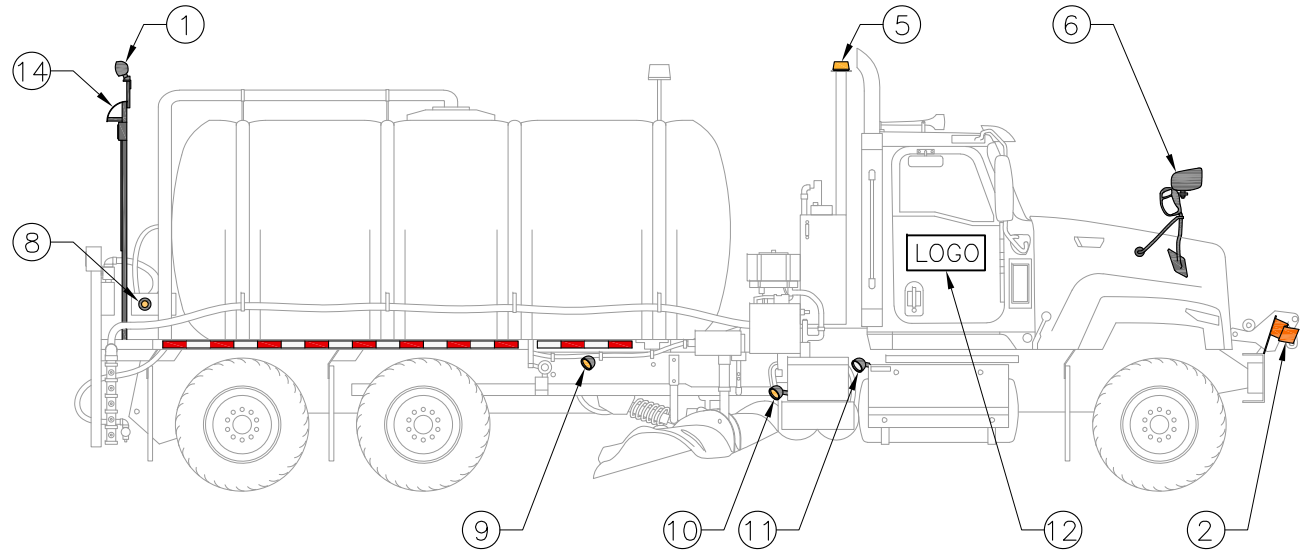
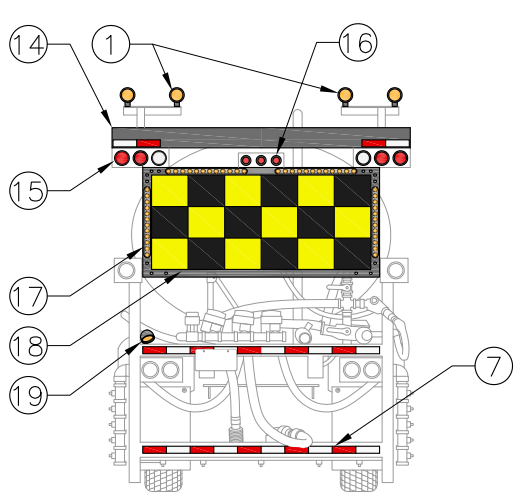


ITEM	DESCRIPTION
1	WARNING BEACONS
2	FLAGS
3	WING BLADE WARNING LIGHT
4	DUMP BOX LIGHT
5	ROTATING BEACON
6	AUXILIARY SNOW PLOW HEAD LAMPS (WITH SIGNALS)
7	STRIPES
8	SIDE MARKER LIGHTS
9	WING PLOW LIGHT
10	UNDERBODY PLOW LIGHT
11	CAB MOUNT BACKUP LIGHTS
12	COMPANY IDENTIFICATION
13	CLEARANCE LIGHTS
14	AIR FOIL
15	PEDESTAL TAIL LIGHTS & TURNING LIGHTS
16	REAR MARKER LIGHTS
17	LIGHT BARS
18	DISPLAY PANEL
19	SANDER SPINNER / SPRAY BAR LIGHT

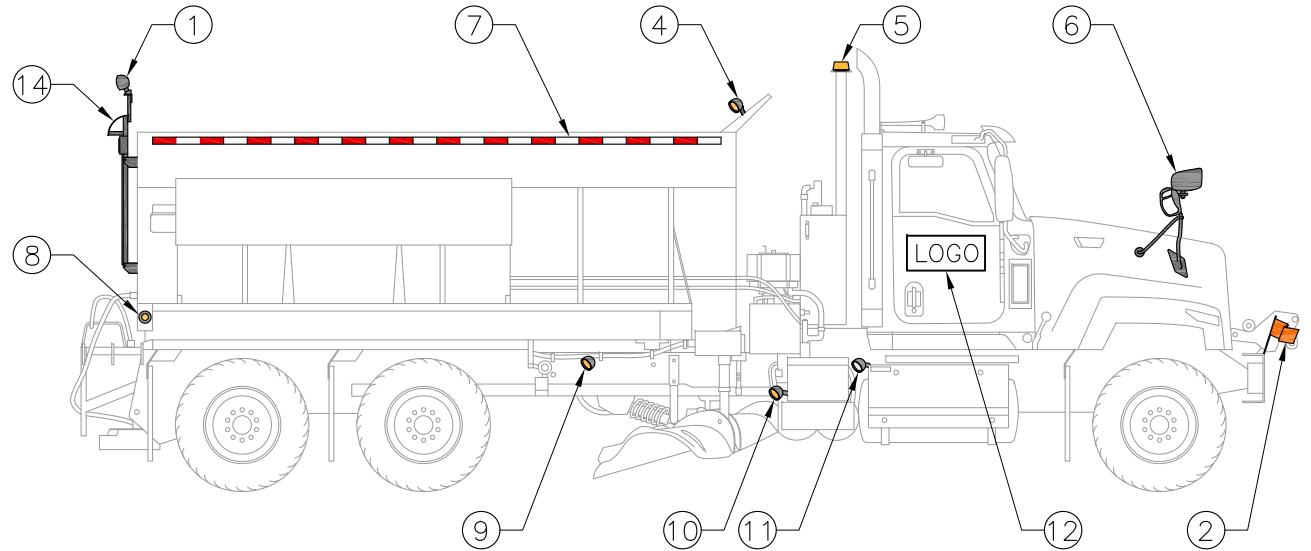
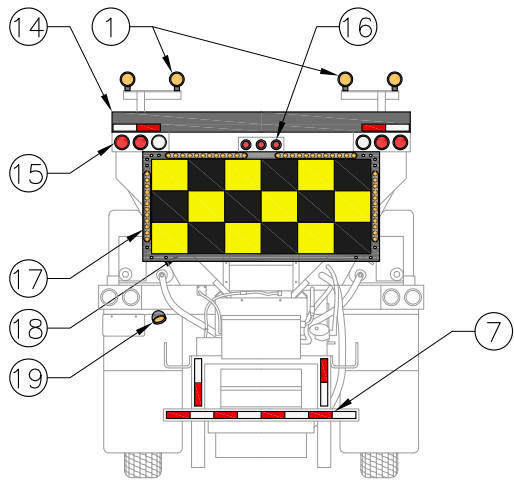
SCALE N.T.S.		CAD FILENAME _____	
		DATE _____	
REV	DATE	REVISIONS	SIGNATURE



EQUIPMENT REQUIREMENTS
APPENDIX B
PLOW TRUCK



LIQUID TANK CONFIGURATION



HOPPER CONFIGURATION

SCALE N.T.S.

CAD FILENAME _____

DATE _____

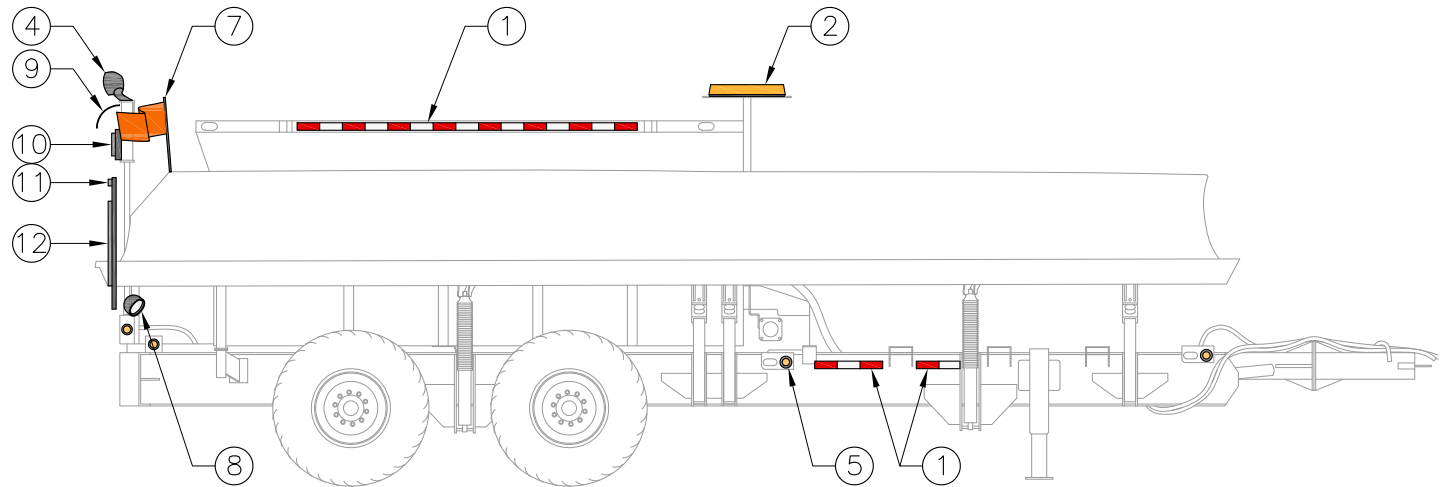
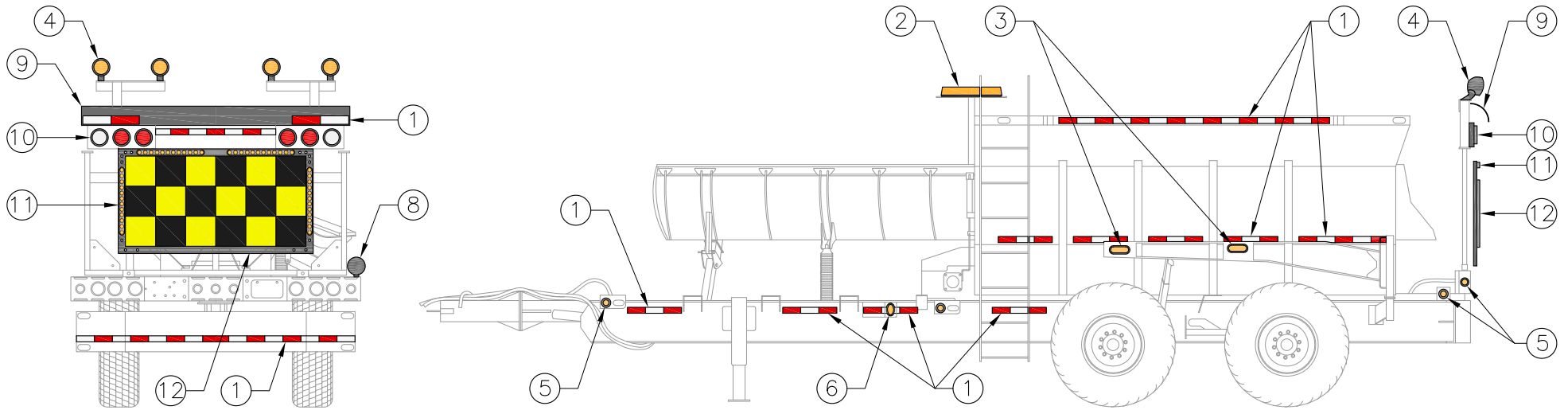
REV	DATE	REVISIONS	SIGNATURE



BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE

EQUIPMENT REQUIREMENTS
APPENDIX B
PLOW TRUCK

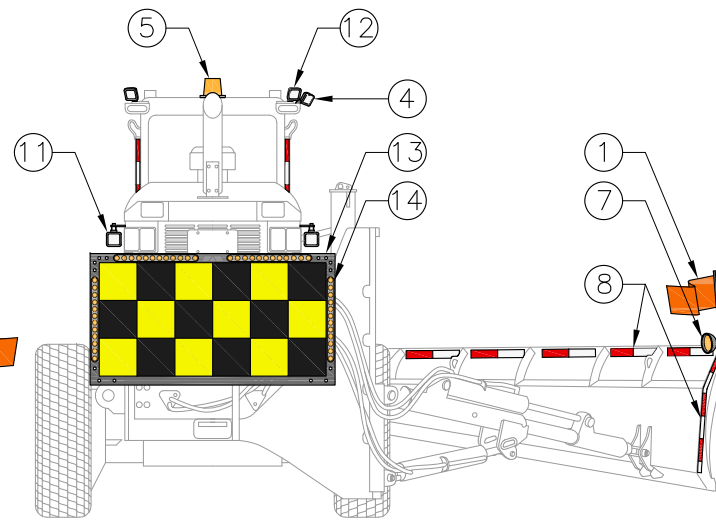
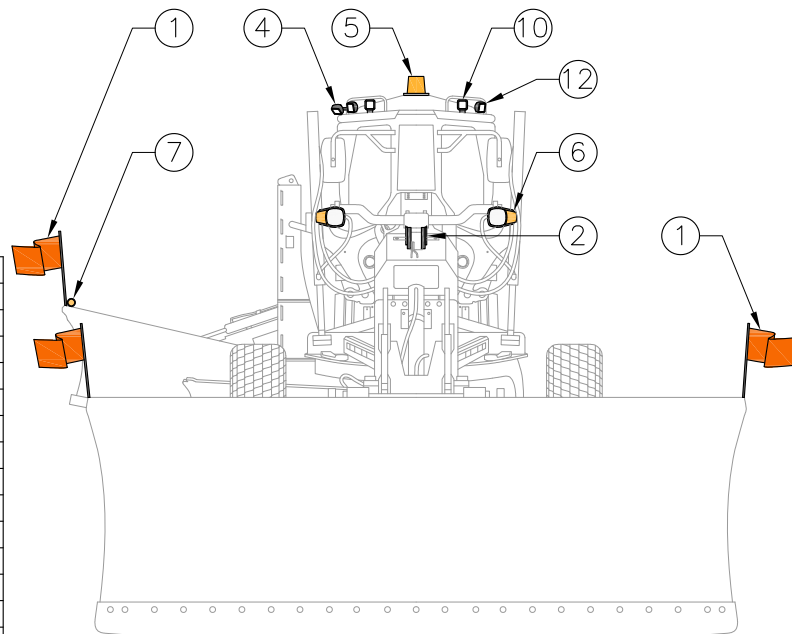
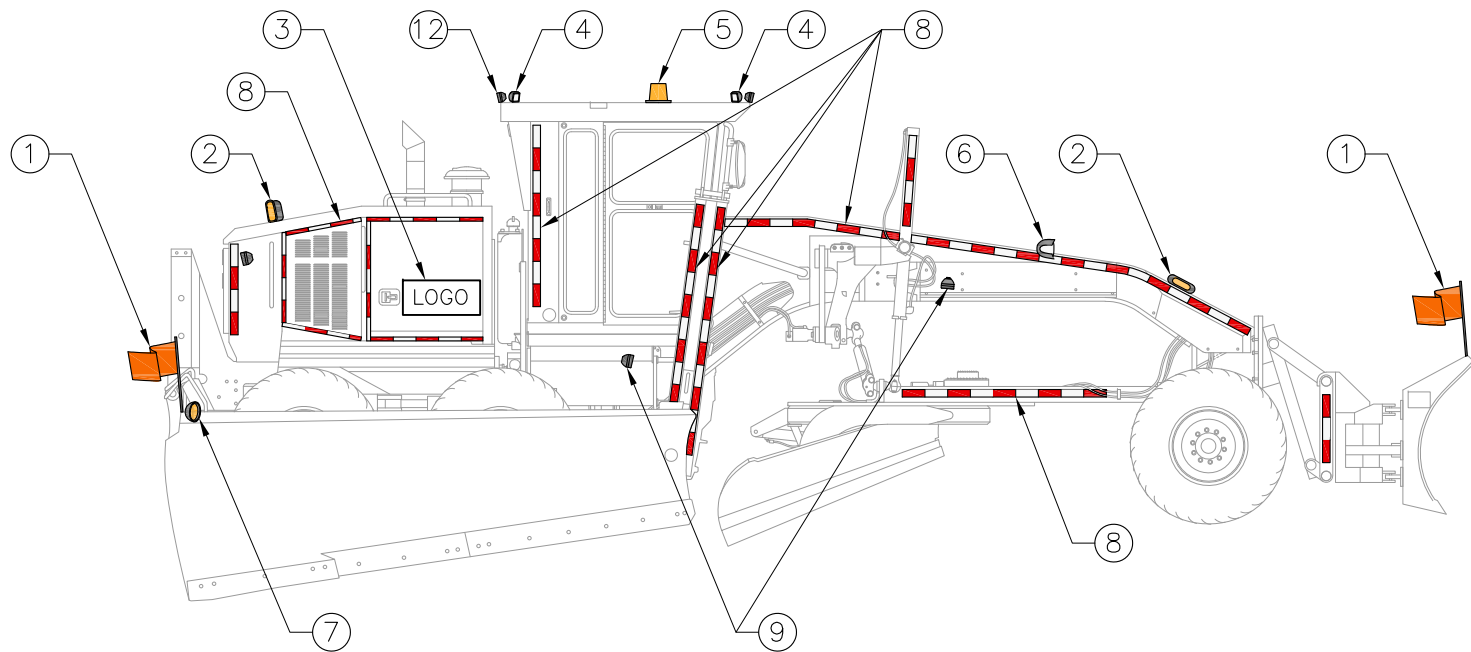


ITEM	DESCRIPTION
1	STRIPES
2	ROTATING BEACON
3	WARNING LIGHTS ON GATE
4	WARNING BEACONS
5	SIDE MARKER LIGHTS
6	WARNING LIGHT ON FRAME
7	FLAGS
8	SINGLE BEAM HEAD LAMP
9	AIR FOIL
10	PEDESTAL TAIL LIGHTS & TURNING LIGHTS
11	LIGHT BARS
12	DISPLAY PANEL

SCALE N.T.S.		CAD FILENAME _____	
		DATE _____	
REV	DATE	REVISIONS	SIGNATURE



EQUIPMENT REQUIREMENTS
APPENDIX C
TOW PLOW



ITEM	DESCRIPTION
1	FLAGS
2	INTERSECTION WARNING LIGHT
3	COMPANY IDENTIFICATION
4	SIDE MOUNT WING LIGHTS
5	ROTATING BEACON
6	HEAD LAMPS WITH SIGNALS
7	WING BLADE WARNING LIGHT
8	STRIPES
9	BLADE LIGHTS
10	HEAD LAMPS
11	BACK-UP LIGHTS
12	WORKING LIGHTS
13	DISPLAY PANEL
14	LIGHT BARS

SCALE N.T.S.		CAD FILENAME _____	
		DATE _____	
REV	DATE	REVISIONS	SIGNATURE