





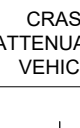
NOTES - MOBILE MAINTENANCE OF ROAD SHOULDER (13.8.12 - SARTSM VOL 2 / CHAPTER 13)

1. Figure 13.41 includes two details of typical short term or mobile work involving slow-moving vehicles occupying the shoulder of the public road. Detail 13.41.1 shows mobile work occurring ahead of a support vehicle which should maintain a close following distance behind the workers (of the order of 20 m to 50 m). In Detail 13.41.2 a single vehicle is performing a mechanised maintenance function.

2. In each case the vehicles should be supported by an alert, well trained flagman, who shall operate in accordance with Figure 13.23.

3. Detail 13.41.1 shows a support vehicle equipped with a HIGH VISIBILITY REAR PANEL and two FLASHING YELLOW WARNING LIGHTS, SS3, whereas the tractor used for grass-cutting operations in Detail 13.41.2 only carries the two FLASHING YELLOW WARNING LIGHTS. For the safety of workers and road users, it is essential that these visibility requirements are adhered to and are functional at all times. The contractor or road supervisor, as appropriate, shall be responsible for ensuring the functionality of all flashing lights.

4. It is recommended that the tractor, which may operate on the left or the right side of a one-way roadway, always works in the direction of traffic flow so that its flashing lights, which are likely to be on the rear, are as effective as possible. Every effort should be made to enhance the visibility of tractors used for road maintenance purposes. The tractors should be kept clean and freshly painted in a bright colour which will contrast with the grass background within which it is working.

MAINTENANCE UNIT INVENTORY				
SIGN	NO	SIZE (mm)	QUANTITY	
	FLAGS	450x400	1	
	VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	1	
	TR103 / TR104 PLUS TW336	900	1	
	MAINTENANCE VEHICLE	1200	1	
		VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	1
	CRASH ATTENUATOR VEHICLE	900	1	
	TR103 / TR104 PLUS TW336	1200	1	
	YELLOW FLASH LIGHT	-	2 PER VEHICLE	
<u>Checklist:</u>				
are workers equipped with high visibility clothing?				
are flagmen alert and well trained?				
are all flags clean and bright?				
are the signs on the HIGH VISIBILITY REAR PANEL correctly set?				
are all flashing lights working?				
is the tractor clean and brightly painted?				

NOTES - MOBILE MAINTENANCE IN CENTRE OF CARRIAGEWAY (13.8.13 - SARTSM VOL 2 / CHAPTER 13)








1. Mobile maintenance in the centre of the roadway or carriageway is always likely to be a hazardous operation, particularly on high speed rural roads. Detail 13.42.1 shows such an operation on a two-lane two-way roadway and Detail 13.42.2 a similar operation on a two-lane one-way Carriageway.

2. The operation on a two-way roadway is particularly hazardous and requires the services of three flagmen as illustrated. The vehicle carrying out the work, or in direct support of it, shall be provided with a HIGH VISIBILITY REAR PANEL and at least two FLASHING YELLOW WARNING LIGHTS, SS3. The two flashing lights shall be positioned so that they define the front and rear of the vehicle, and, if practical for this type of work, the width of the vehicle as well, since it will be passed by traffic on both sides.

3. In Detail 13.42.2 two high visibility treated vehicles are specified and traffic is controlled to pass only to one side of the two vehicles. The rear most vehicle effectively closes one lane (it could be the left lane or the right lane subject to the nature of the work and local traffic conditions). The second vehicle travels some 150 m in front, either undertaking the work, or in support of it if the work is being done manually.

4. In each case the vehicles should be supported by alert, well trained flagmen, who shall operate in accordance with Figure 13.23.

5. When traffic speeds are high, it is recommended that at least one advance sign be placed to warn drivers of the activity ahead. A "public relations" type of message and/or flashing lights should be considered for such signs (see Figure 13.18).

MAINTENANCE UNIT INVENTORY				
SIGN	NO	SIZE (mm)	QUANTITY	
	FLAGS	450x400	1	
	TR103	1200	1	
	VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	1	
	TR103 / TR104 PLUS TW336	1200	1	
	VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	1	
	TR103 / TR104 PLUS TW336	1200	1	
	YELLOW FLASH LIGHT	-	2 PER VEHICLE	
<u>checklist:</u>				
are workers equipped with high visibility clothing?				
are flagmen alert and well trained?				
are all flags clean and bright?				
are the signs on the HIGH VISIBILITY REAR PANEL correctly set?				
are all flashing lights working?				

NOTES - MOBILE MAINTENANCE OF DUAL CARRIAGEWAY ROADS (13.8.14 - SARTSM VOL 2 / CHAPTER 13)

1. Figure 13.43 shows similar treatments to those in Details 13.41.1 and 13.42.2, but refers to shoulder area work, or work within the left lane up to, but excluding the lane line. For shoulder work, the support vehicle at the rear shall be equipped with a HIGH VISIBILITY REAR PANEL and two FLASHING YELLOW WARNING LIGHTS SS3, whereas the lead vehicle need only be provided with two flashing lights, unless it may also be used for the role depicted in Detail 14.42.2.

2. The advance signing used in support of the vehicles is kept to a minimum because these should be moved forward periodically as work progresses. To maximise their effectiveness, it is recommended that they be displayed with one or more flags.





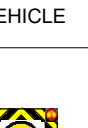


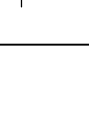
3. The detail given is applicable to one-way roadways, normally forming part of a dual carriageway. It is not applicable to two-way traffic operation (see Figure 13.42).

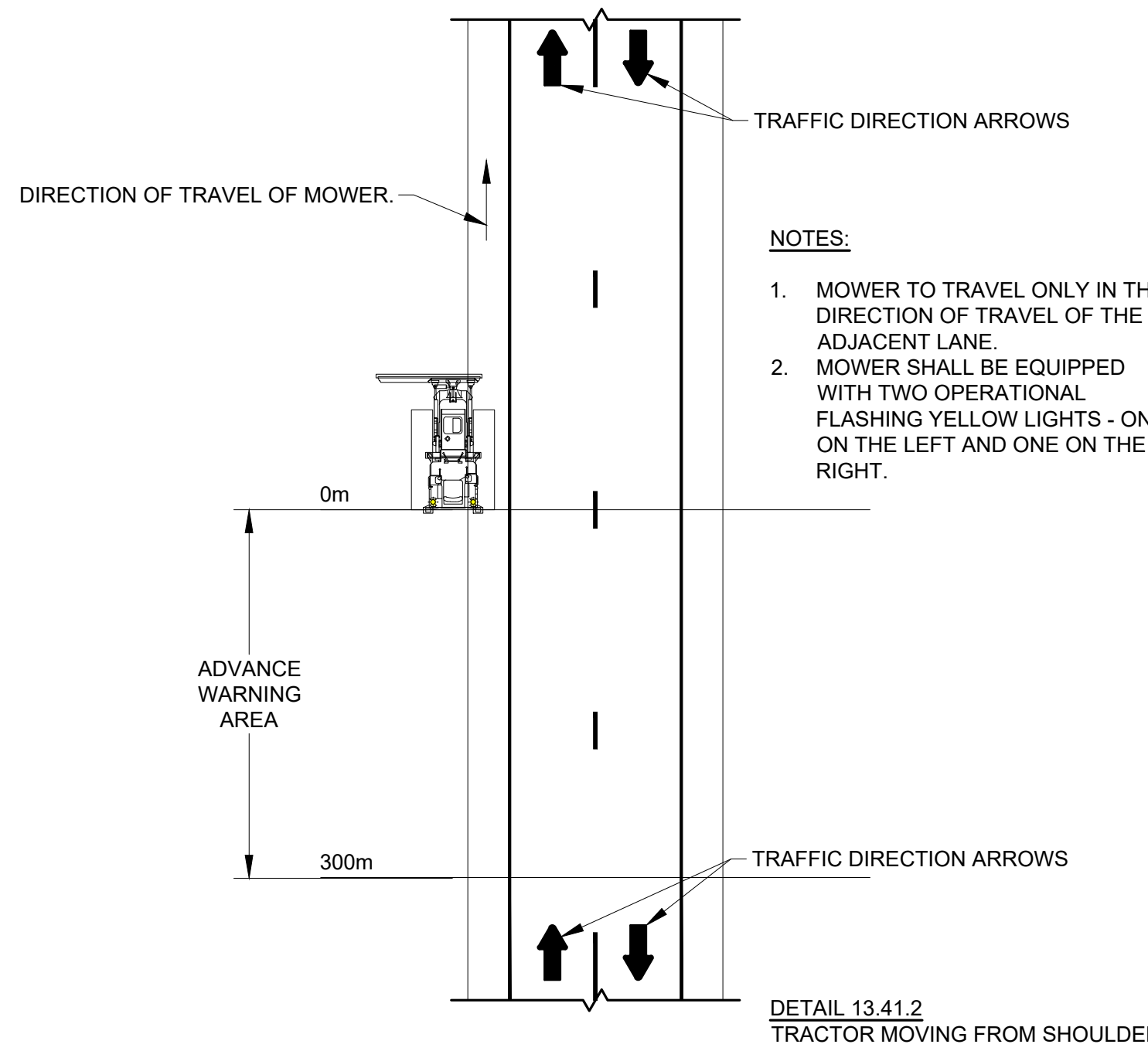
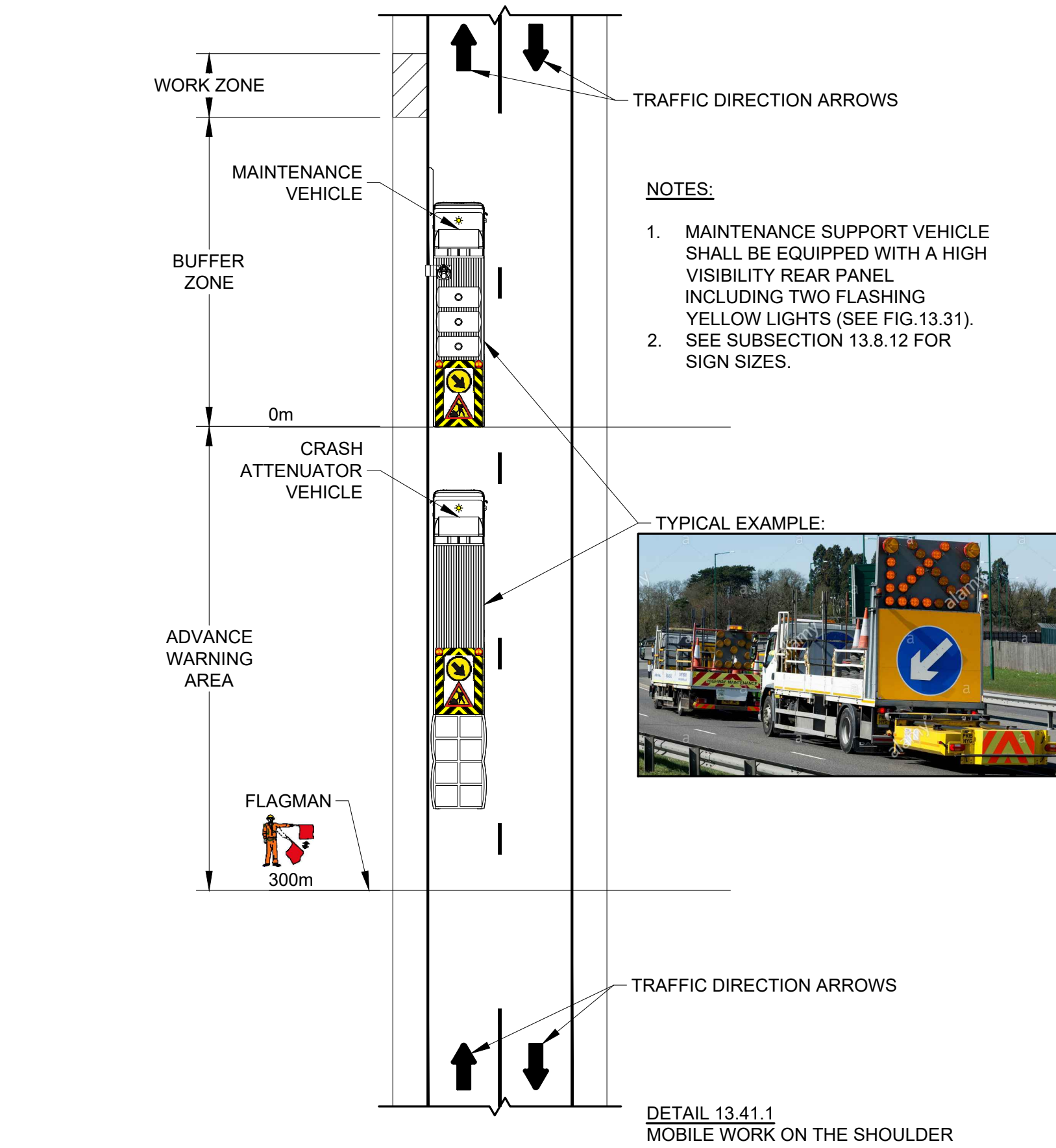
Checklist:

are flags clean and visible?

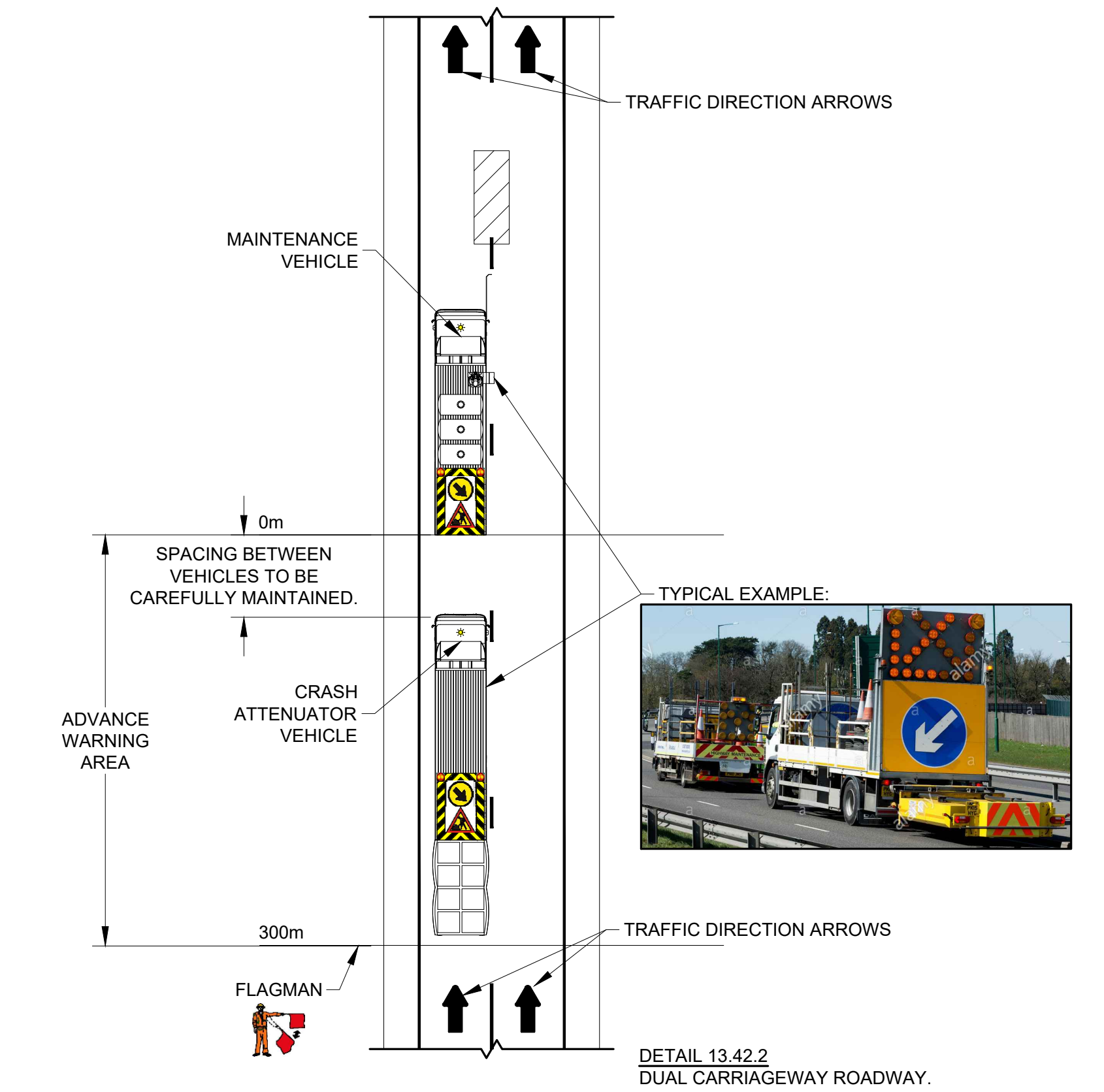
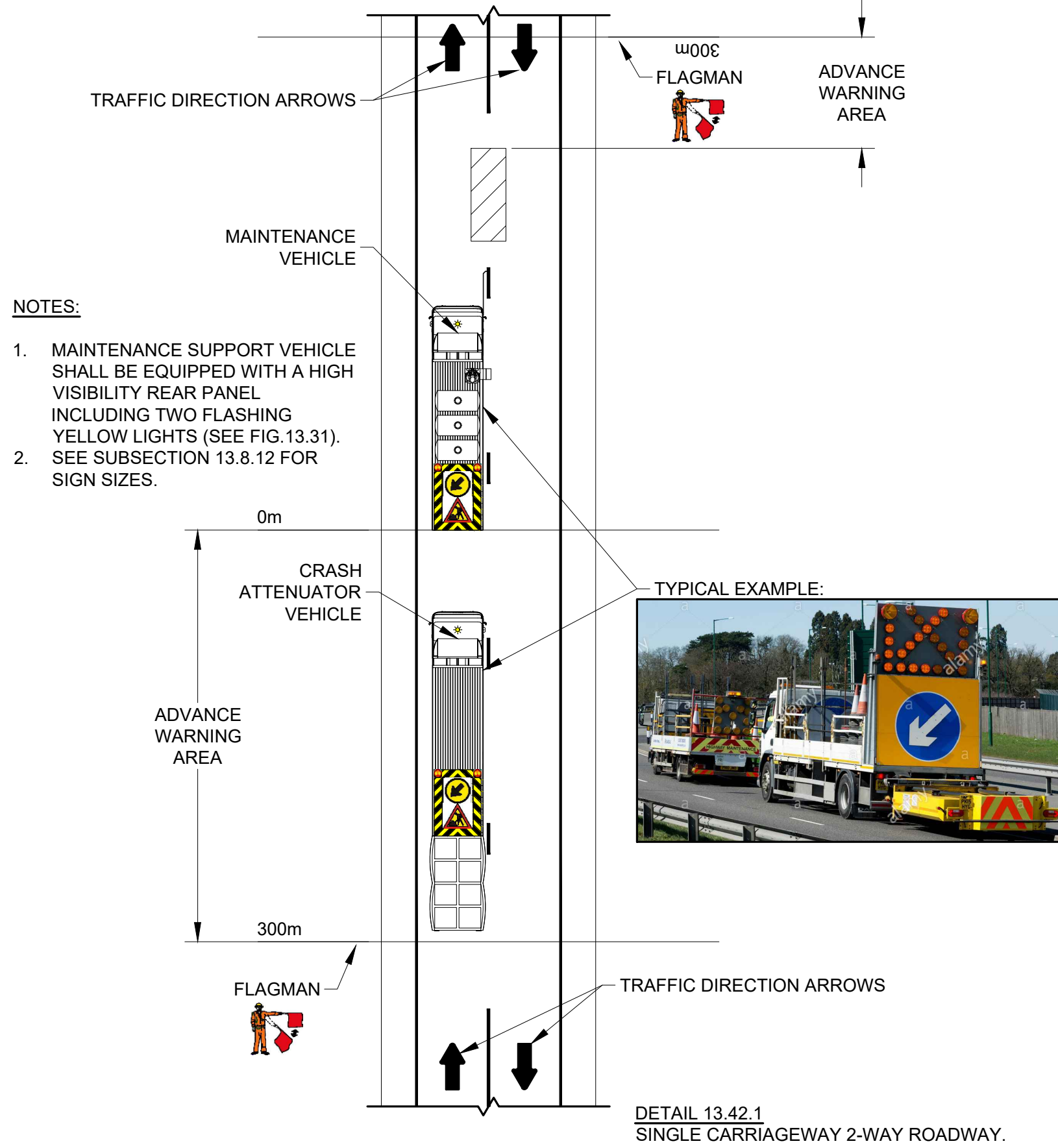
are the signs on the HIGH VISIBILITY REAR PANEL correctly set?

are all flashing lights working?

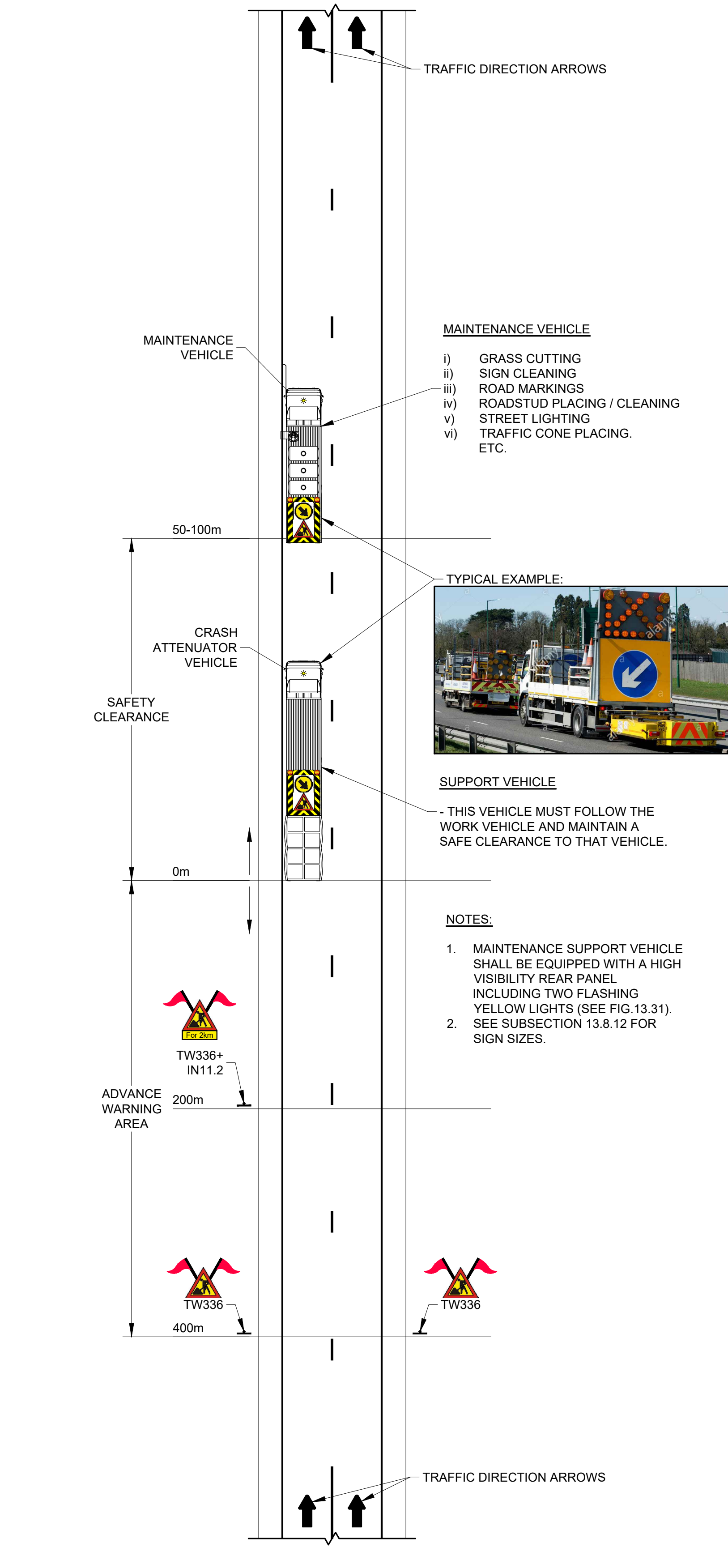
MAINTENANCE UNIT INVENTORY				
SIGN	NO	SIZE (mm)	QUANTITY	
	TW336	1200	2	
	FLAGS	450x450	4	
	TIN11.2	1200	1	
	VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	2	
	CRASH ATTENUATOR VEHICLE	TR103 / TR104 PLUS TW336	2	
	VEHICLE HIGH VISIBILITY REAR PANEL	TO SUIT VEHICLE	1	
	CRASH ATTENUATOR VEHICLE	TR103 / TR104 PLUS TW336	1	
	YELLOW FLASH LIGHT	-	2 PER VEHICLE	



ACCOMMODATION OF TRAFFIC: MOBILE MAINTENANCE ON ROAD SHOULDER
FIG 13.41 SARTSM - VOL2 CHAPTER 13



ACCOMMODATION OF TRAFFIC: MOBILE MAINTENANCE IN CENTRE OF ROADWAY
FIG 13.42 SARTSM - VOL2 CHAPTER 13



ACCOMMODATION OF TRAFFIC: MOBILE MAINTENANCE OF DUAL CARRIAGEWAY ROADS
FIG 13.43 SARTSM - VOL2 CHAPTER 13

PROJECT DESCRIPTION				PROJECT NUMBER		-	
SANRAL REPAIR AND RESURFACE PETROPORT TO OGIES				DRAWING LOCATION DATA		START	END
				ROUTE		-	-
				SECTION		-	-
				DRAWING km DISTANCE		0000	0000
				DRAWING TYPE		ROADS	
				BRIDGE/STRUCTURE No.		-	
				CONSULTANT DRAWING No.		PD	EN/3244/R/9/001
				SANRAL DOCUMENT #		18573894	
				SCALE: NTS		SHEET 1 OF 1	
						VER V1	

FOR TENDER PURPOSES

EN3231/R/9/001