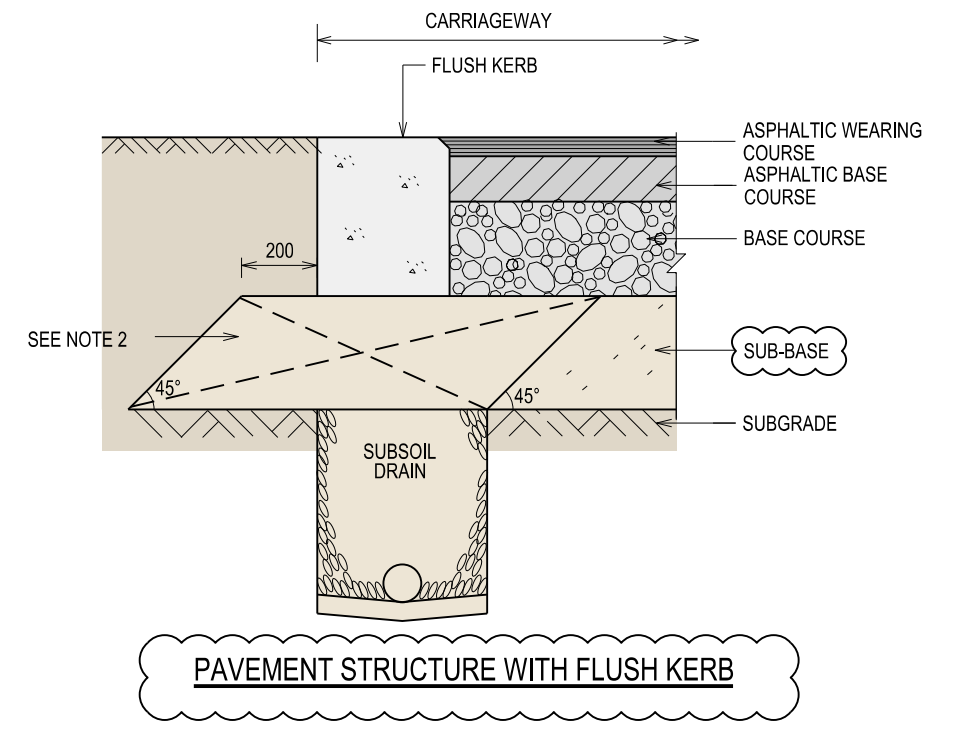
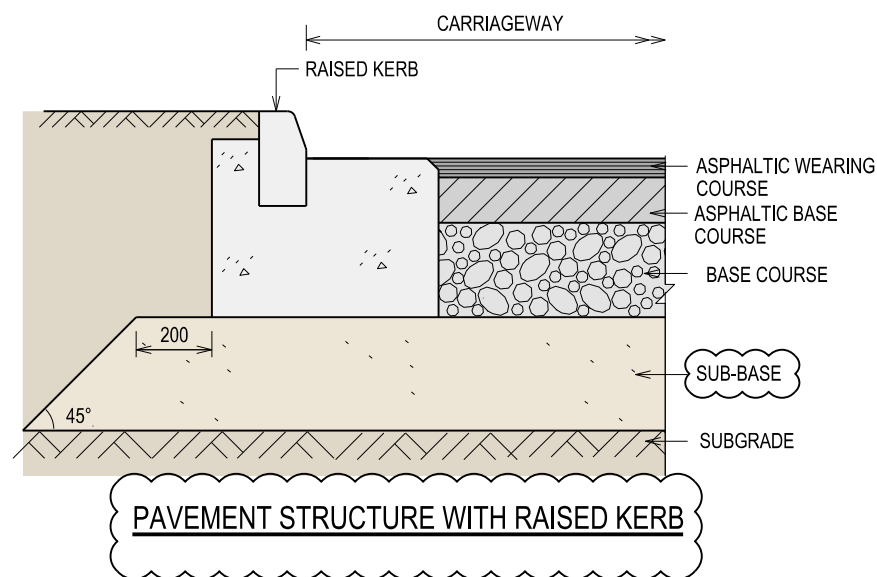
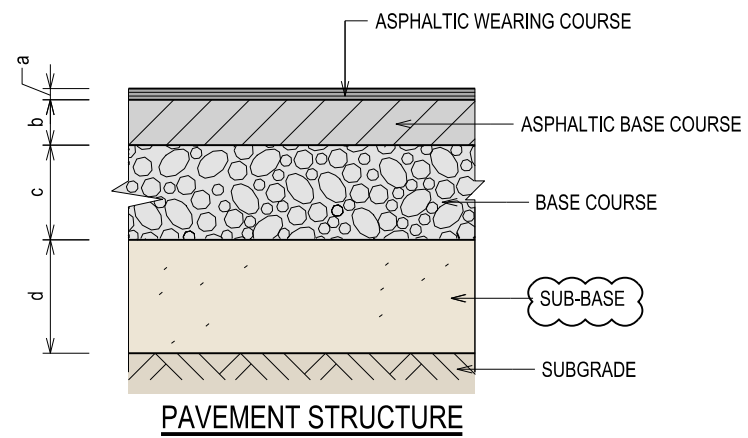


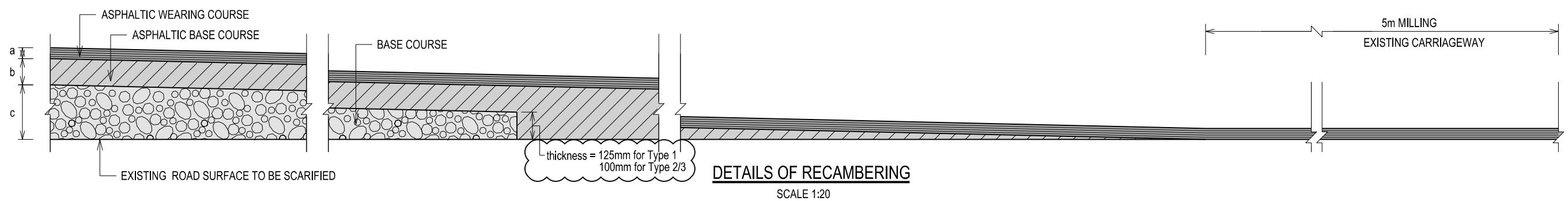
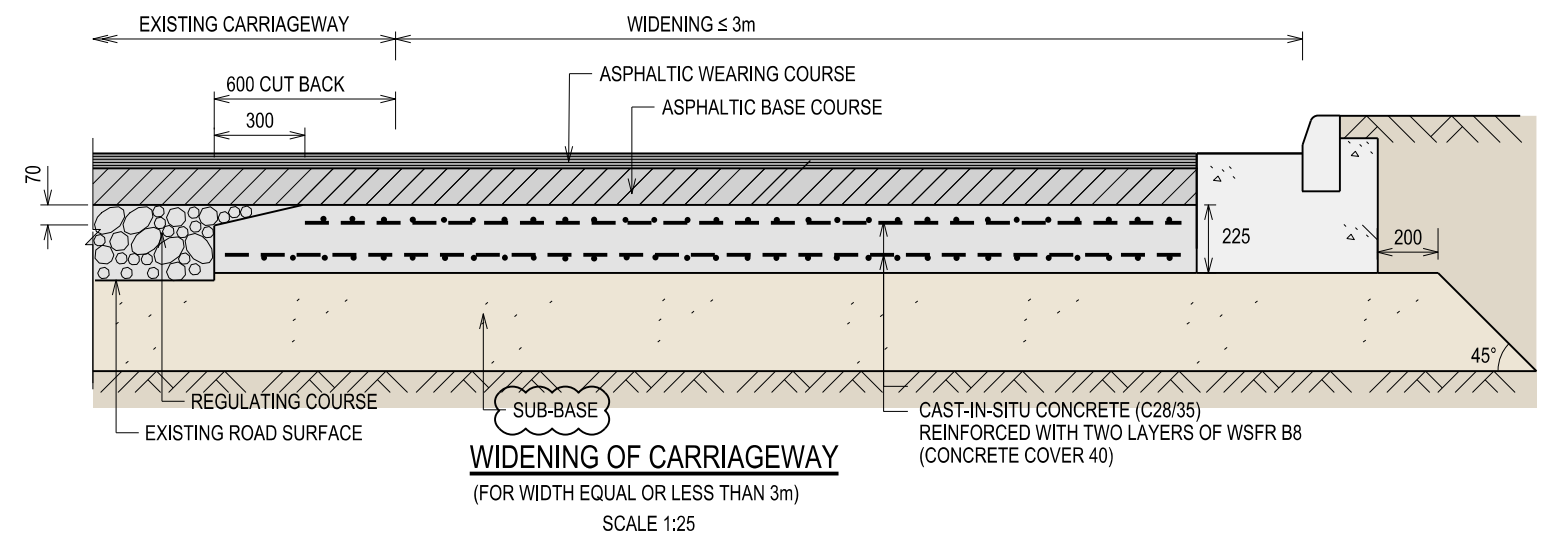
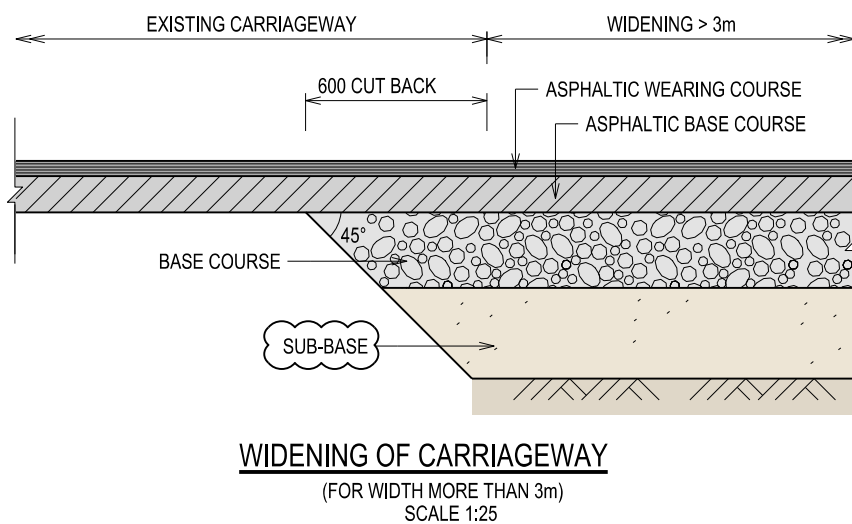
# CHAPTER 1

## PAVEMENTS OF ROADS

DRAWING TITLE	DRAWING NO.	REVISION
FLEXIBLE PAVEMENT , RECAMBERING & WIDENING OF CARRIAGEWAY	LTA/SDRE14/1/PAV1	B
RIGID PAVEMENT (SHEET 1 OF 2)	LTA/SDRE14/1/PAV2	B
RIGID PAVEMENT (SHEET 2 OF 2)	LTA/SDRE14/1/PAV3	B
PUBLIC LIGHTING	LTA/SDRE14/1/PAV4	C
TRAFFIC LIGHT CABLE	LTA/SDRE14/1/PAV5	B



TYPE OF FLEXIBLE PAVEMENT	ROAD TYPE	THICKNESS			
		a	b	c	d
TYPE 1	EXPRESSWAY SEMI-EXPRESSWAY ARTERIAL ROAD ROAD IN INDUSTRIAL AREA	50	120	250	300
TYPE 2	PRIMARY ACCESS	40	90	200	300
TYPE 3	LOCAL ACCESS	25	75	200	200



**NOTES:**

- Asphaltic wearing course - W3B or OGW as required in project specification.
- Gradation for 20mm graded stones.

SIEVE	% PASSING
20.0mm	100
13.2mm	85-95
6.3mm	58-68

SIEVE	% PASSING
3.35mm	40-50
2.36mm	21-31

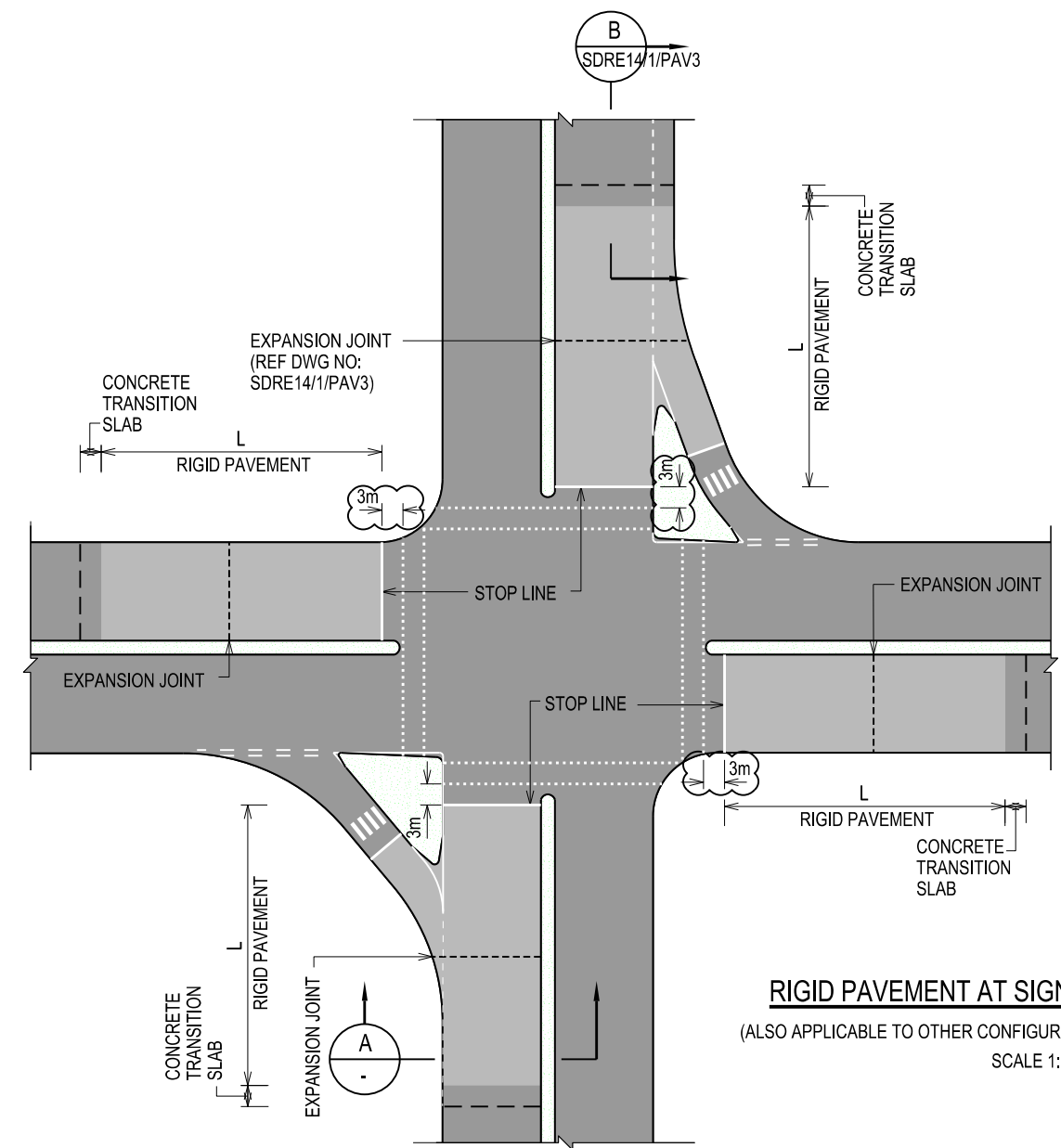
- Roads in industrial area and roads leading in / out of industrial areas, as shown in Urban Redevelopment Authority (URA) conceptual land use plan (refer to URA's website) shall be categorised as industrial roads.
- Various layers of pavement shall be constructed in compliance with M&W Specification.

**STANDARD DETAIL**

FLEXIBLE PAVEMENT, RECAMBERING & WIDENING OF CARRIAGEWAY

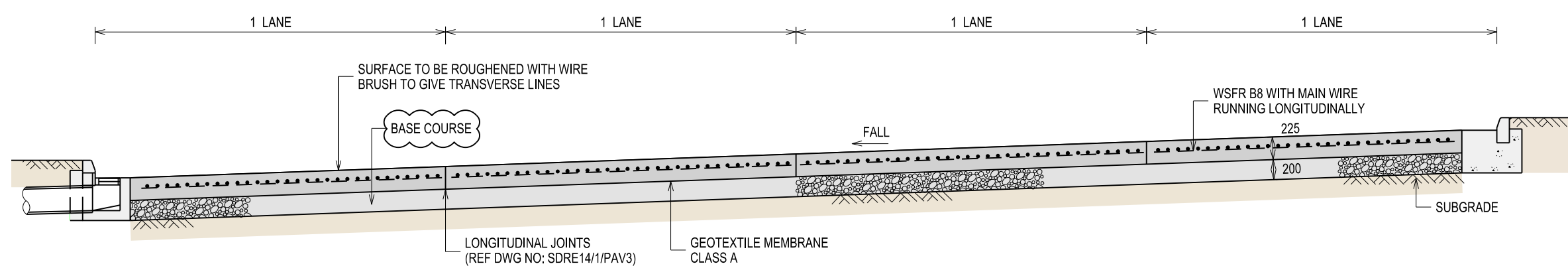


DRAWING NO. LTA/SDRE14/1/PAV1		REV. B
DATE OF ISSUE 1st APR 2014	SCALE 1:20	SHEET NO. 1 OF 1



ROAD TYPE	LENGTH OF RIGID PAVEMENT (L)
OTHER ROADS	40m
ROAD IN INDUSTRIAL AREA	50m

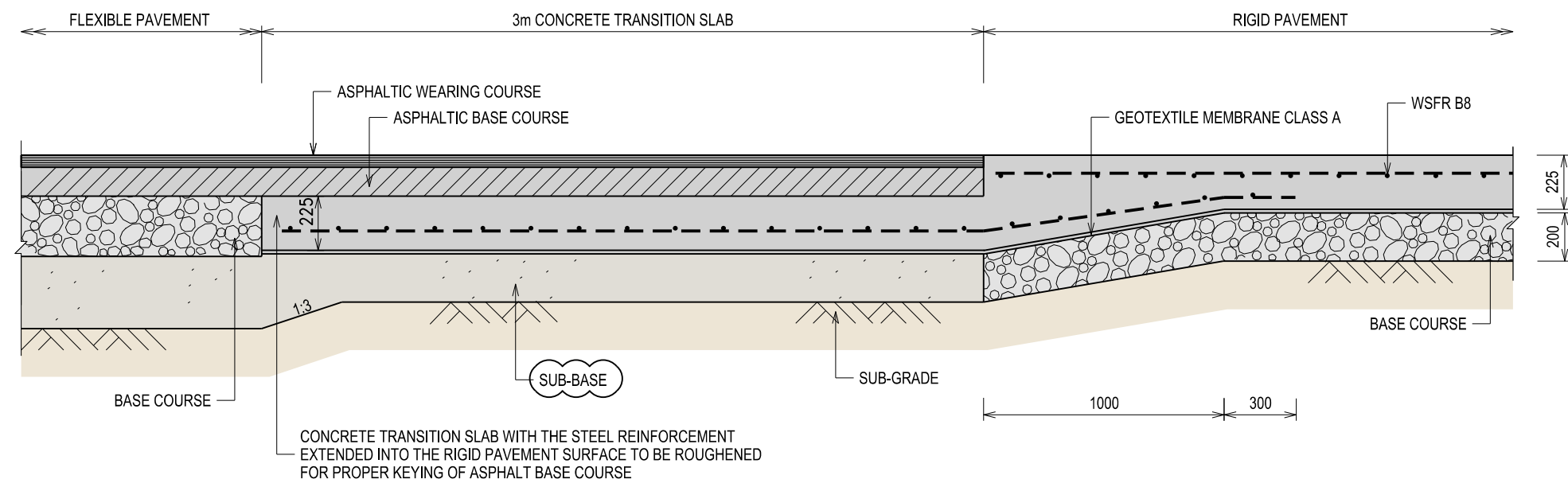
**RIGID PAVEMENT AT SIGNALISED ROAD JUNCTION**  
 (ALSO APPLICABLE TO OTHER CONFIGURATION OF SIGNALISED ROAD JUNCTIONS)  
 SCALE 1:1000



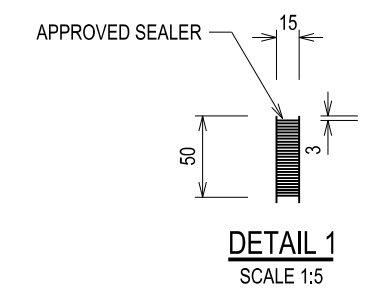
**SECTION A-A**  
 SCALE 1:50

- NOTES:**
- Bond breaking compound  
66% light 200 pen bitumen + 14% light creosote oil + 20% solvent naphtha
  - The concrete shall be of C28/35.
  - The concrete cover shall be 40mm.

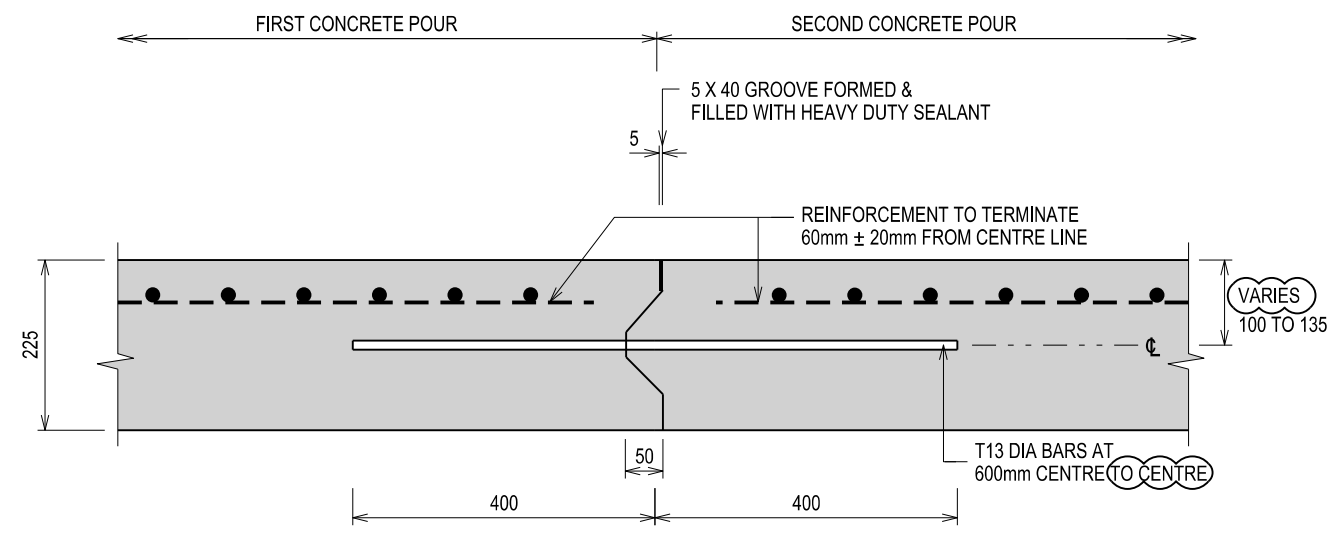
<p><b>STANDARD DETAIL</b></p> <p>RIGID PAVEMENT (SHEET 1 OF 2)</p>				
				DRAWING NO. LTA/SDRE14/1/PAV2
B SEP 2017	DATE	DATE OF ISSUE 1st APR 2014	SCALE AS SHOWN	SHEET NO. 1 OF 2



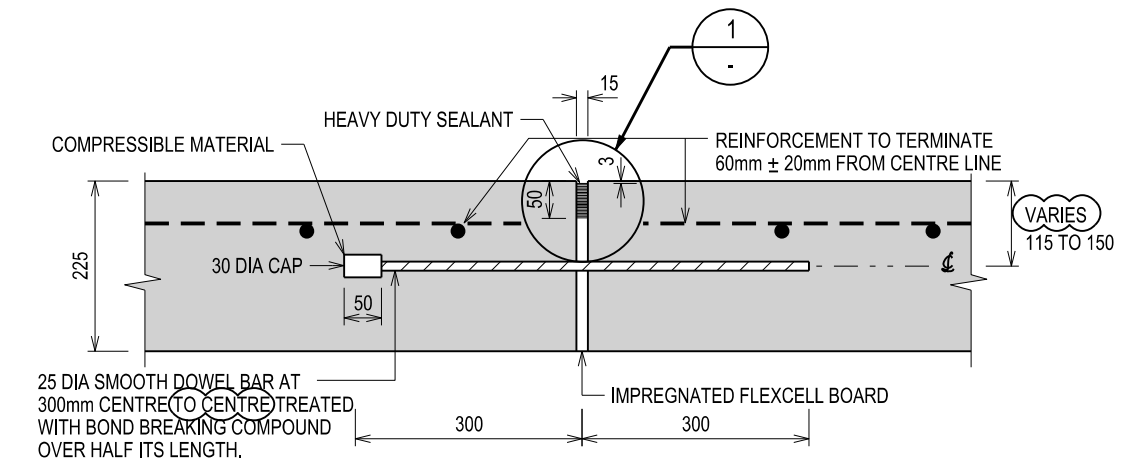
**SECTION B-B**  
**DETAIL OF CONNECTION BETWEEN FLEXIBLE AND RIGID PAVEMENT**  
 REF DWG NO: SDRE14/1/PAV2  
 SCALE 1:25



**DETAIL 1**  
 SCALE 1:5

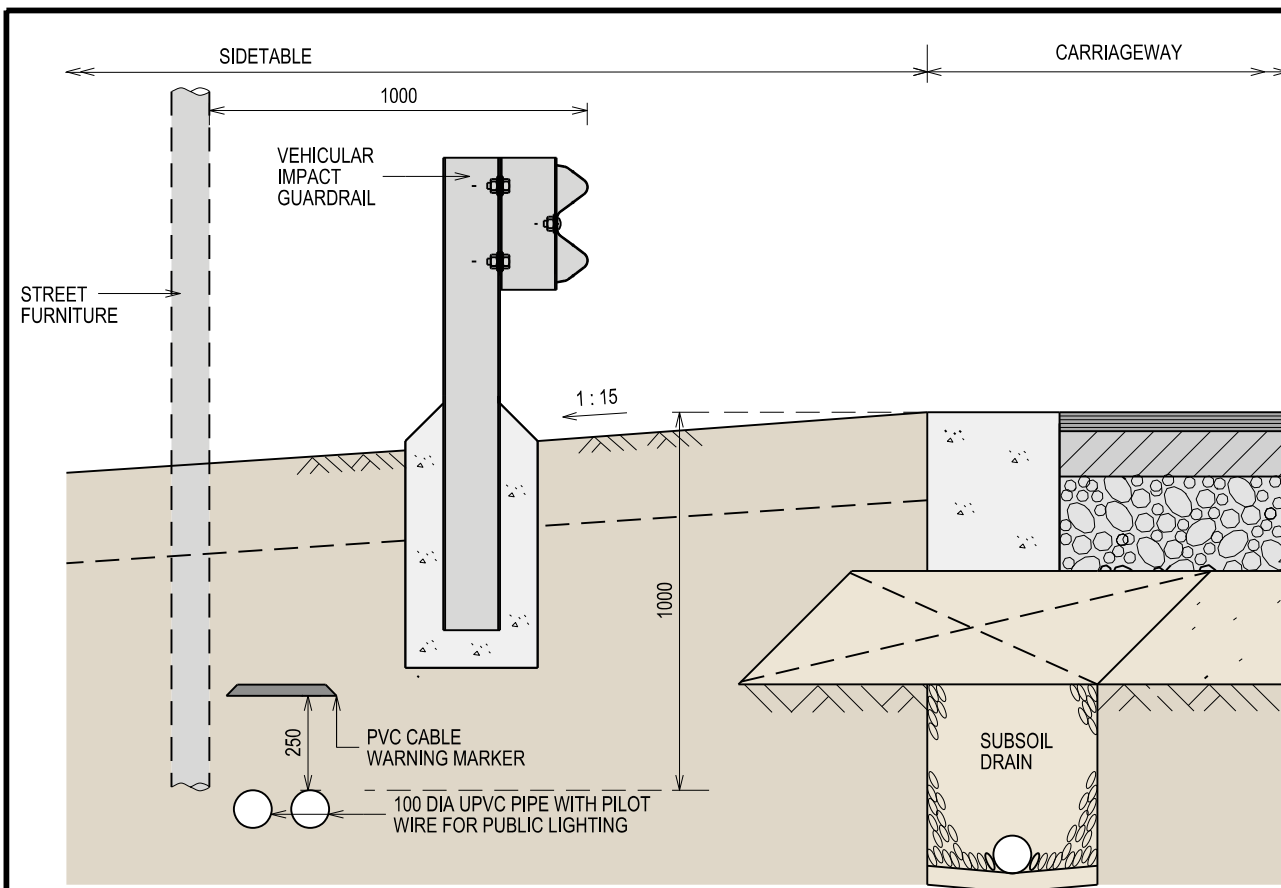


**LONGITUDINAL JOINT**  
 SCALE 1:10

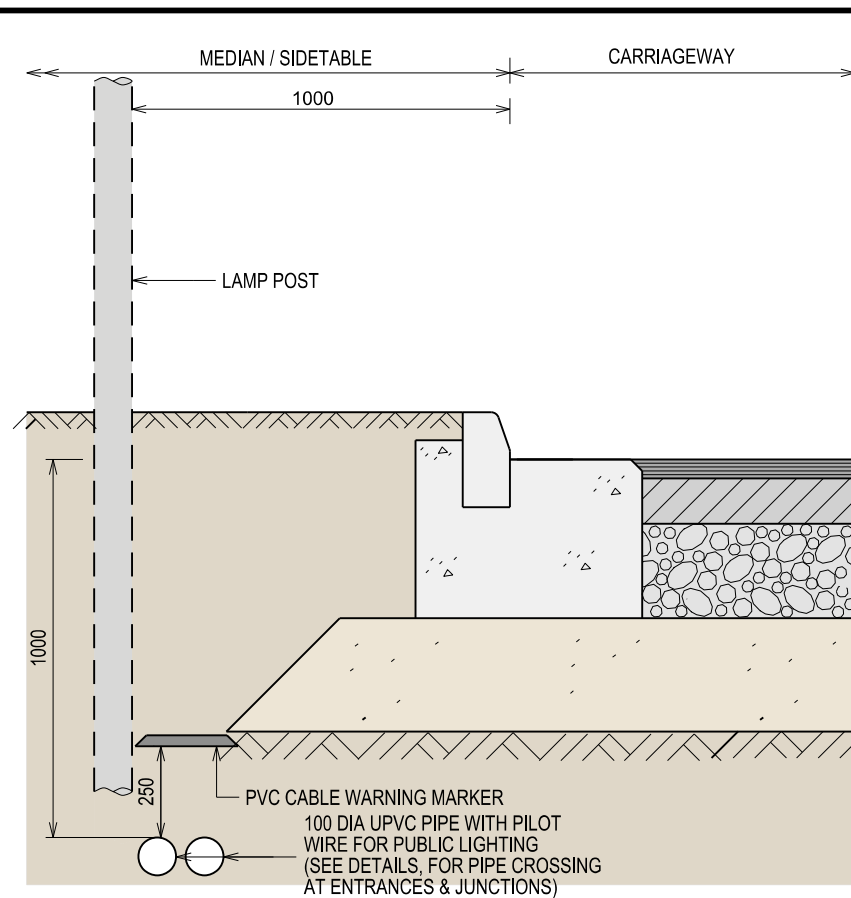


**EXPANSION JOINT**  
 SCALE 1:10

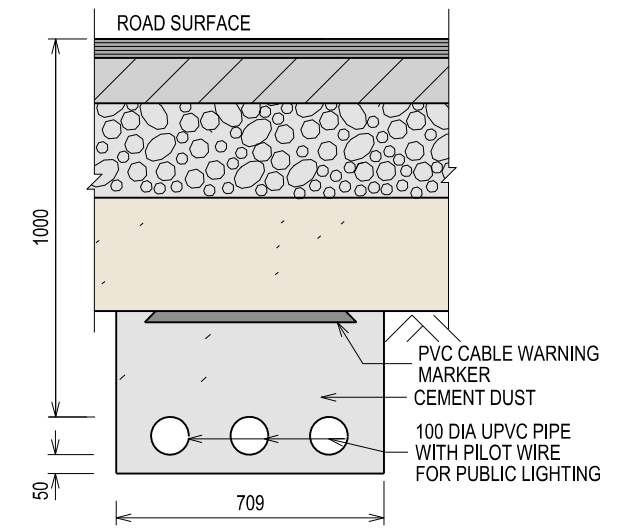
		<b>STANDARD DETAIL</b>			
		RIGID PAVEMENT (SHEET 2 OF 2)		DRAWING NO. LTA/SDRE14/1/PAV3	
				DATE OF ISSUE 1st APR 2014	SCALE AS SHOWN
		REV. B	DATE	SHEET NO. 2 OF 2	



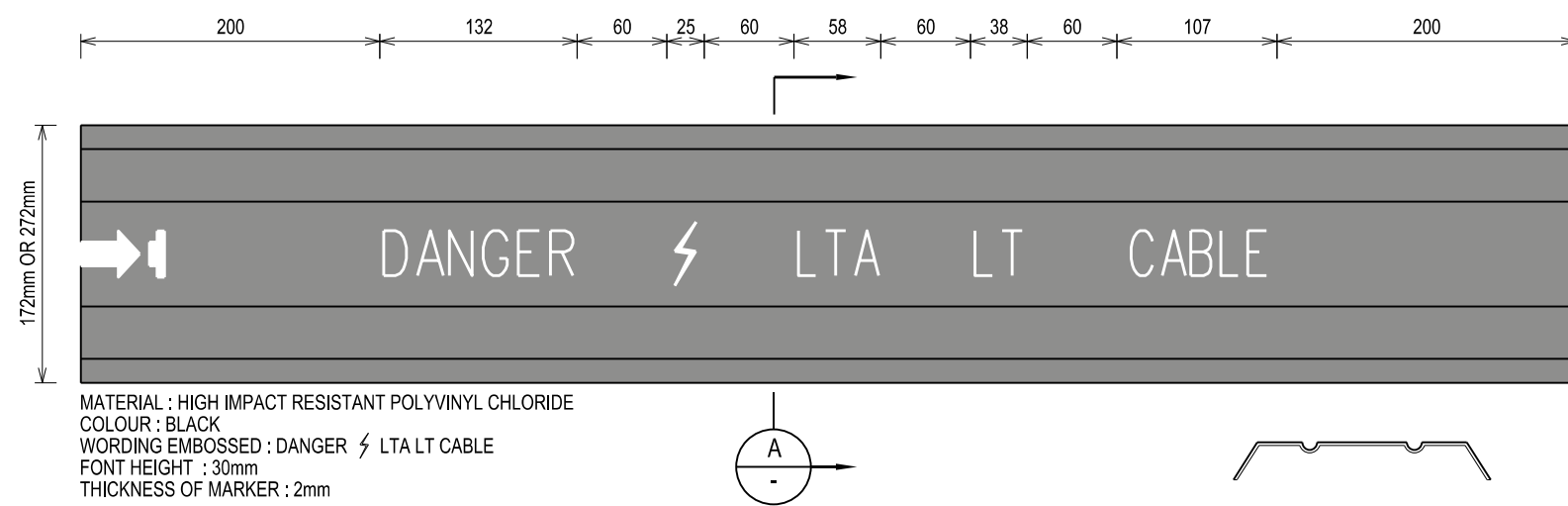
**EXPRESSWAY**  
SCALE 1:20



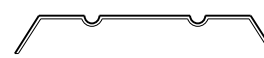
**OTHER ROAD**  
SCALE 1:20



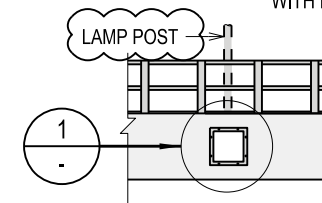
**DETAIL OF PIPE CROSSING AT ENTRANCES & JUNCTIONS**  
SCALE 1:20



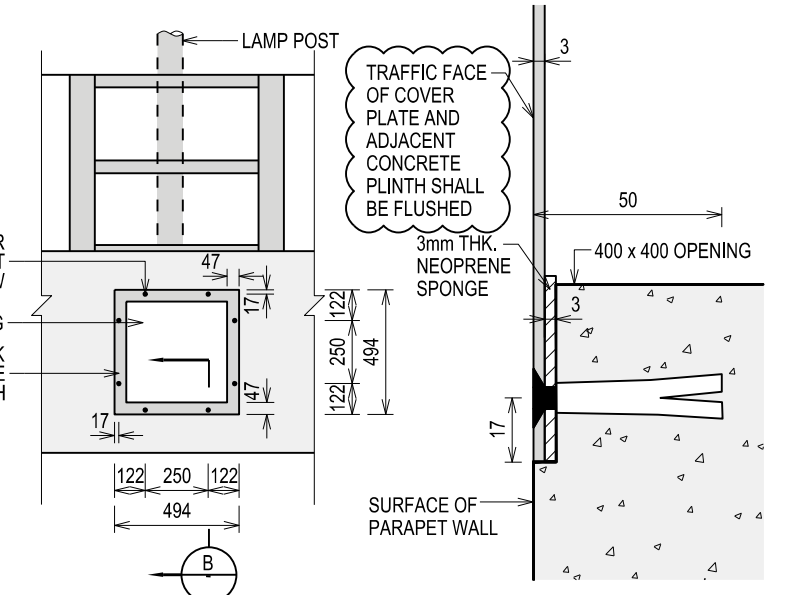
**PLAN OF PVC CABLE WARNING MARKER**



**SECTION A-A**



**ELEVATION**  
SCALE 1:100



**DETAIL 1**  
SCALE 1:30

**SECTION B-B**  
SCALE 1:2

**STAINLESS STEEL COVER PLATE ON PARAPET WALL**

**NOTES:**

- 2 numbers of UPVC pipes shall be laid along sidewalk & 3 numbers of UPVC pipes shall be laid at entrances and junctions.
- Cement dust
  - The composition of cement dust consists of one part of cement and ten parts of granite dust.
  - The cement dust mixture shall be sprinkled with water and compacted in layers to achieve a hardened layer.
- Capping / stoppers shall be provided for the pipes when not in use.

4. The cable warning marker shall cover the full width of the UPVC pipes.

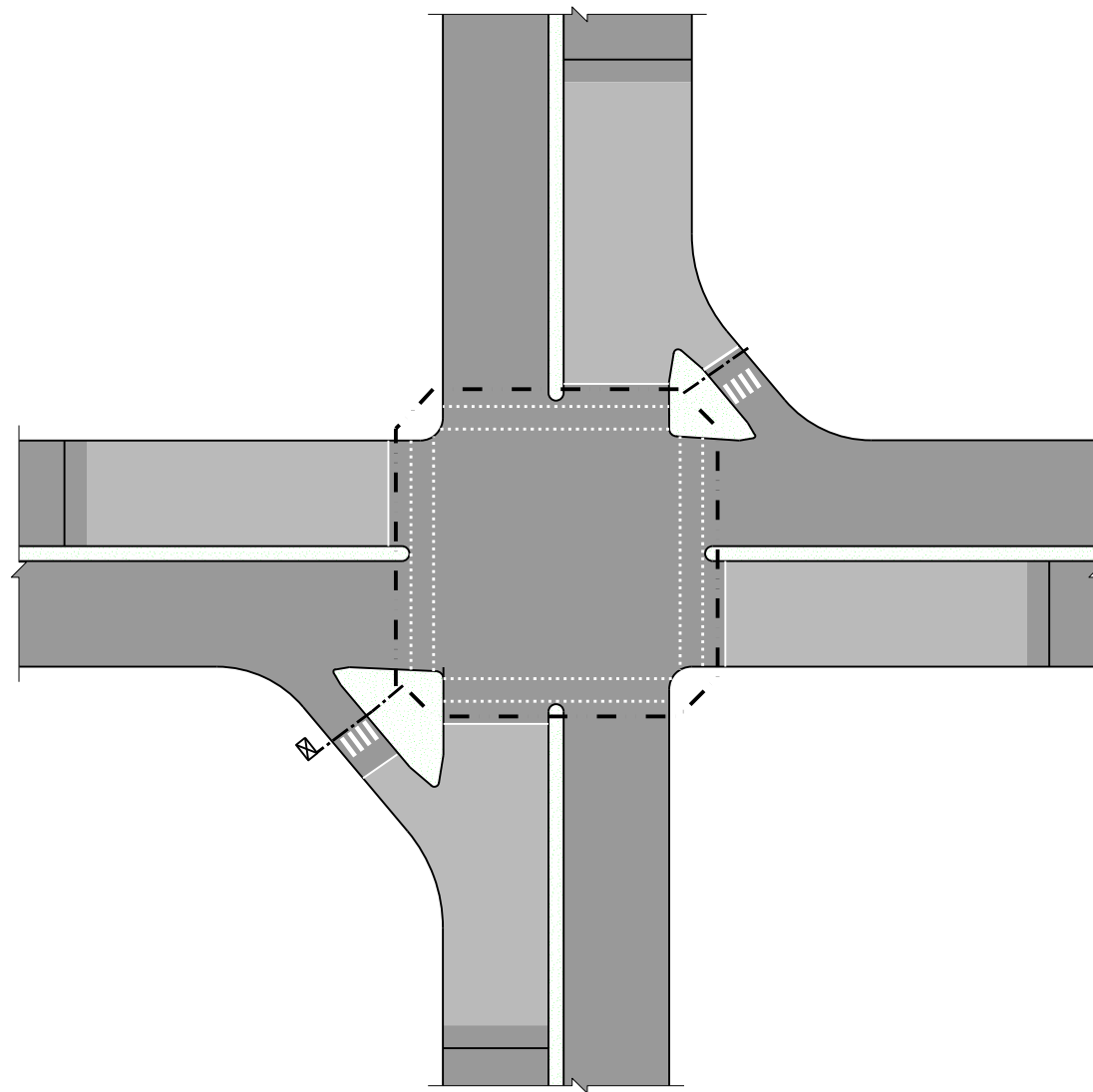
**STANDARD DETAIL**

PUBLIC LIGHTING

REV.	DATE
A	OCT 2015
B	SEP 2017
C	APR 2019

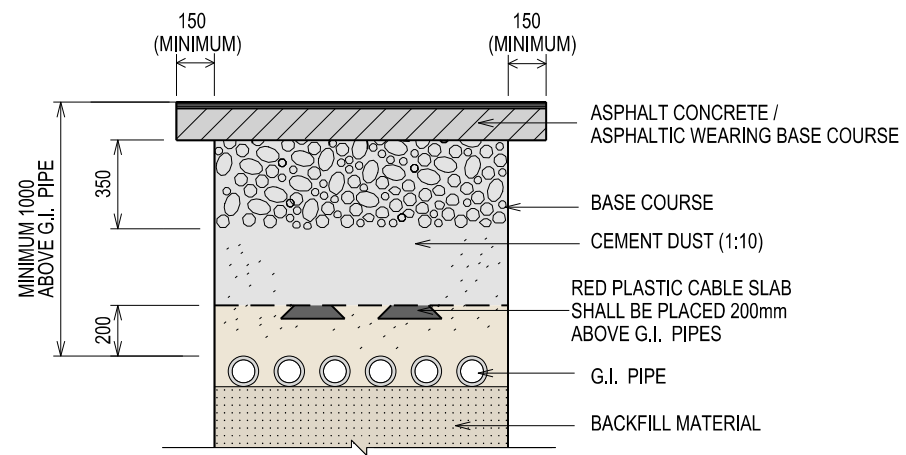


DRAWING NO.		REV.
LTA/SDRE14/1/PAV4		C
DATE OF ISSUE	SCALE	SHEET NO.
1st APR 2014	AS SHOWN	1 OF 1



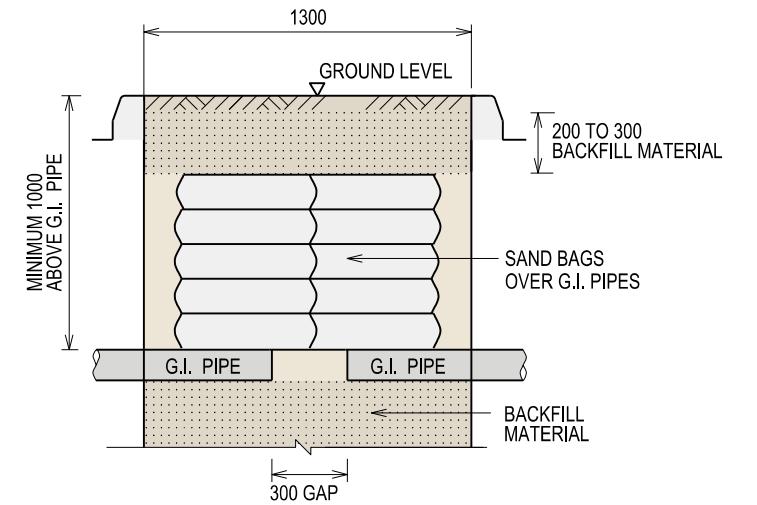
G.I. PIPE AT SIGNALISED ROAD JUNCTION

SCALE 1 : 1000



CROSS SECTION OF TRENCH (1m DEPTH)

SCALE 1:30

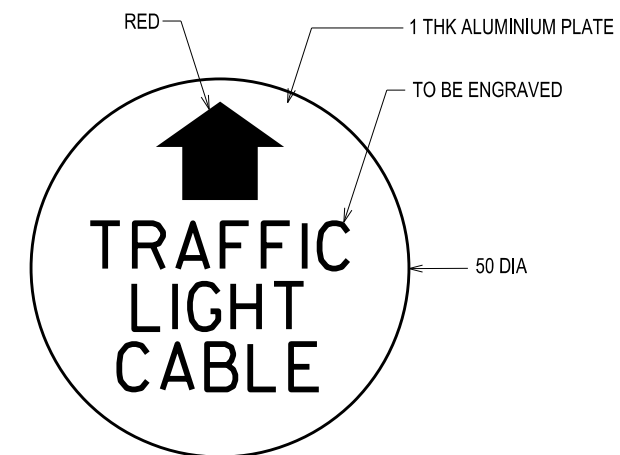


CROSS SECTION OF DRAW PIT (1m DEPTH)

SCALE 1:30

LEGEND

- TRAFFIC CONTROLLER BOX BY OTHERS
- 6 NOS. 100mm DIA G.I. PIPE WITH 'TRAFFIC LIGHT CABLE' SLAB TO BE LAID 1m BELOW FINISHED LEVEL  
ALL G.I. PIPES ACROSS ROAD TO BE LAID THROUGH CENTRE DIVIDER AND ONE G.I. PIPE TO BE BREAK AT CENTRE DIVIDER
- 8 NOS. 100mm DIA G.I. PIPE WITH 'TRAFFIC LIGHT CABLE' SLAB TO BE LAID 1m BELOW FINISHED LEVEL (FOR SLIP ROAD THAT LEADS TO TRAFFIC CONTROLLER)



TRAFFIC LIGHT CABLE MARKER

SCALE 1:2

NOTES:

1. Cable slab to be mounted on concrete pavement with industrial glue to indicate the location of G.I. pipe crossing.
2. Traffic light cable slab with concrete haunching to be used to cover the cables at intersections of G.I. pipes.
3. G.I. pipe socket shall be used for connecting of 2 straight G.I. pipes.
4. Cables shall be laid in 3.6mm thick (Class A), 100mm diameter galvanised iron pipes, complying with BS EN 10255:2004 under roads, footpaths and sidetable.
5. Durable red plastic cable slabs shall be placed 200mm above the pipes for all trenches dug regardless of the depth to mark their positions.

6. The plastic cable slabs shall be 300mm x 1000mm and marked with the wordings: 'TRAFFIC LIGHT CABLE -1800 CALL LTA - 1800 2255 582'.
7. G.I. pipes shall be laid between the stop line and the 2nd pedestrian crossing line and laid through the centre divider.
8. G.I. pipes shall be break at the draw pits (i.e intersection of G.I. pipes) on centre divider or sidetable with a gap of about 300mm. Sand bags shall be provided over all the cable draw pits to enable contractor to lay cable from controller to each individual traffic light pole.
9. Capping / stoppers shall be provided for the pipes when not in use.

<b>STANDARD DETAIL</b>			
TRAFFIC LIGHT CABLE		DRAWING NO. <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">LTA/SDRE14/1/PAV5</span>	
		DATE OF ISSUE 1st APR 2014	SCALE AS SHOWN
		SHEET NO. 1 OF 1	
REV. B	SEP 2017		
A	OCT 2015		
REV.	DATE		