

THE FLOW CHART ABOVE REFERS DIRECTLY OR INDIRECTLY TO THE FOLLOWING STANDARD DRAWINGS

- S702 WARNING TACTILE INDICATORS
- S703 DIRECTIONAL TACTILE INDICATORS
- S704 PATH OF TRAVEL FOR SIGHT IMPAIRED
- S705 CRITERIA SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED
- S706 PRAM CROSSING LAYOUT
- S707 PRAM RAMP DIMENSIONS FOR CROSSINGS WITH TACTILE INDICATORS.
- S708 TACTILE INDICATOR LAYOUT IF CRITERIA 2, 4 OR 5 ARE NOT COMPLIED WITH
- S709 EXAMPLE TACTILE INDICATOR LAYOUT IF CRITERIA 1 IS NOT COMPLIED WITH
- S710 EXAMPLE TACTILE INDICATOR LAYOUT IF CRITERIA 3 IS NOT COMPLIED WITH
- S711 CHANGE OF GRADE BETWEEN APPROACH & RAMP SO THAT TACTILE INDICATORS ARE NOT REQUIRED
- S712 SPLITTER ISLAND EXAMPLE TACTILE INDICATOR LAYOUT
- S713 MID BLOCK CROSSINGS TACTILE INDICATOR LAYOUT
- S714 BUS STOP TACTILE INDICATOR LAYOUT
- S715 PRAM RAMP DIMENSIONS FOR CROSSINGS WITHOUT TACTILE INDICATORS.

NOTE 1. IF THE EXAMPLE PATH CONFIGURATIONS DO NOT REPRESENT THE ON SITE SITUATION THEN CONTACT COUNCIL TO NOMINATE THE REQUIRED TACTILE INDICATOR LAYOUT

## KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. **S701**

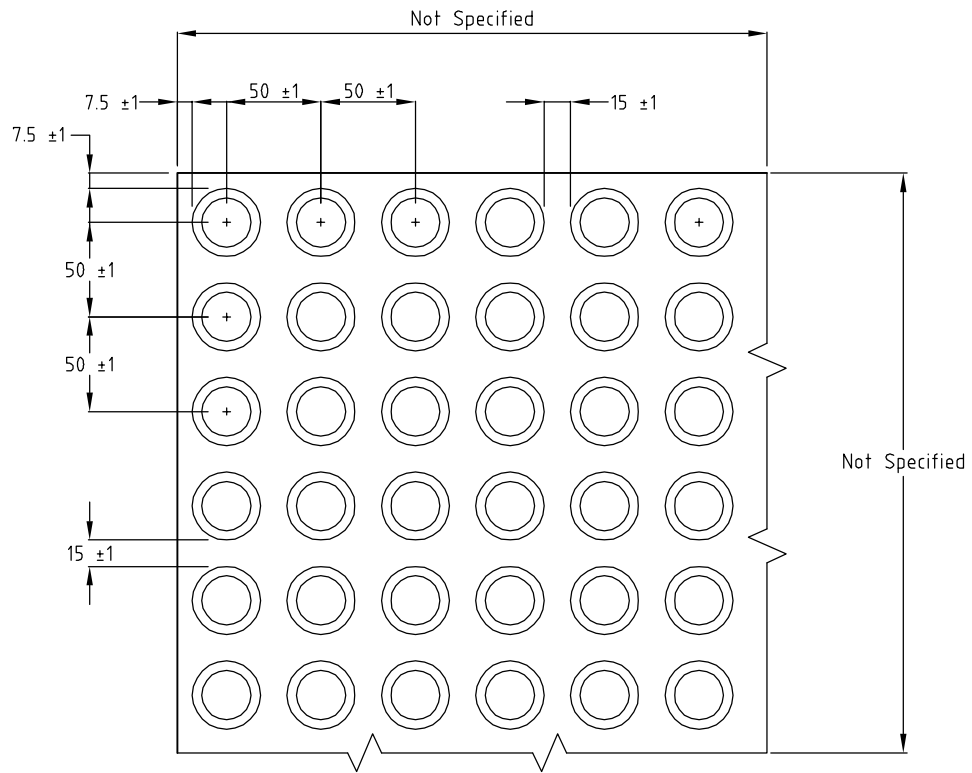
ISSUE DATE: 22/03/12

TACTILE INDICATOR REQUIREMENTS FOR PRAM CROSSINGS  
FLOW CHART

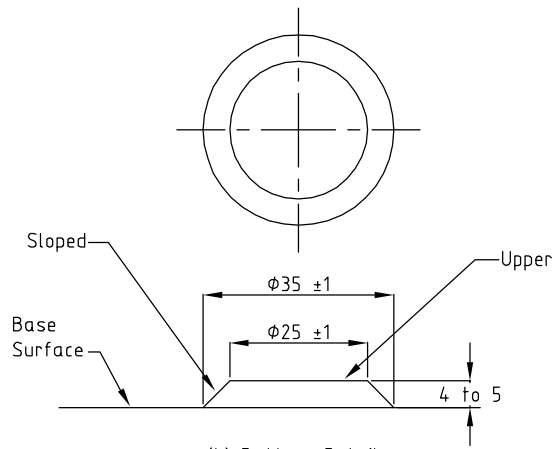
STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

2.2.3.3 Design requirements

The design of warning indicators shall comply with Figure 1.



(a) Top view



(b) Pattern Details

DIMENSIONS IN MILLIMETRES

FIGURE 1 TYPICAL WARNING INDICATOR PATTERN

NOTES

REFER TO SECTION 2.2.3.3 OF AS1428.4 :2002 (PAGE 12) FOR THE DESIGN REQUIREMENTS OF WARNING INDICATORS.

REFER TO SECTION 2.1(b) OF AS1428.4 :2002 (PAGE 10) FOR LUMINANCE CONTRAST CRITERIA FOR TACTILE INDICATORS.

NOTE THAT COUNCIL HAS ADOPTED THE USE OF TACTILE INDICATOR LAYOUTS PLACED IN MULTIPLES OF 300mm (EG WARNING INDICATOR PADS ON PRAM CROSSINGS ARE GENERALLY 900mm x 600mm)

**KINGSTON CITY COUNCIL**  
STANDARD DRAWING

DRG. NO. **S702**

ISSUE DATE: 22/03/12

WARNING TACTILE INDICATORS

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

2.243.3 Design requirements

The design of directional indicators shall comply with Figure 2.

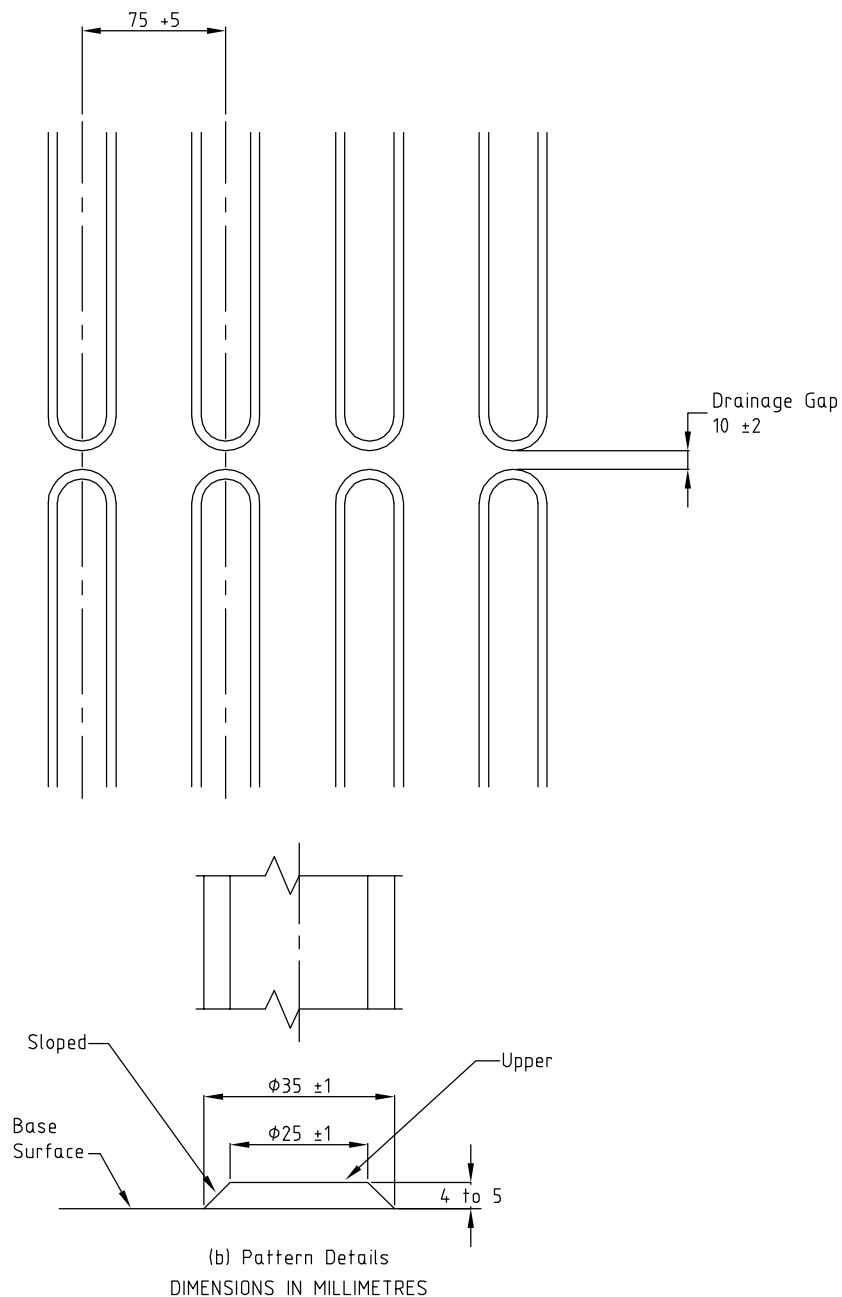


FIGURE 2 TYPICAL DIRECTIONAL INDICATOR PATTERN

NOTES

REFER TO SECTION 2.2.4.3 OF AS 1428.4 :2002 (PAGES 13 & 14) FOR THE DESIGN REQUIREMENTS OF DIRECTIONAL INDICATORS.

REFER TO SECTION 2.1(b) OF AS1428.4 :2002 (PAGE 10) FOR LUMINANCE CONTRAST CRITERIA FOR TACTILE INDICATORS.

NOTE THAT COUNCIL HAS ADOPTED THE USE OF TACTILE INDICATOR LAYOUTS PLACED IN MULTIPLES OF 300mm (EG WARNING INDICATOR PADS ON PRAM CROSSINGS ARE GENERALLY 900mm x 600mm)

**KINGSTON CITY COUNCIL**  
**STANDARD DRAWING**

DRG. NO. **S703**

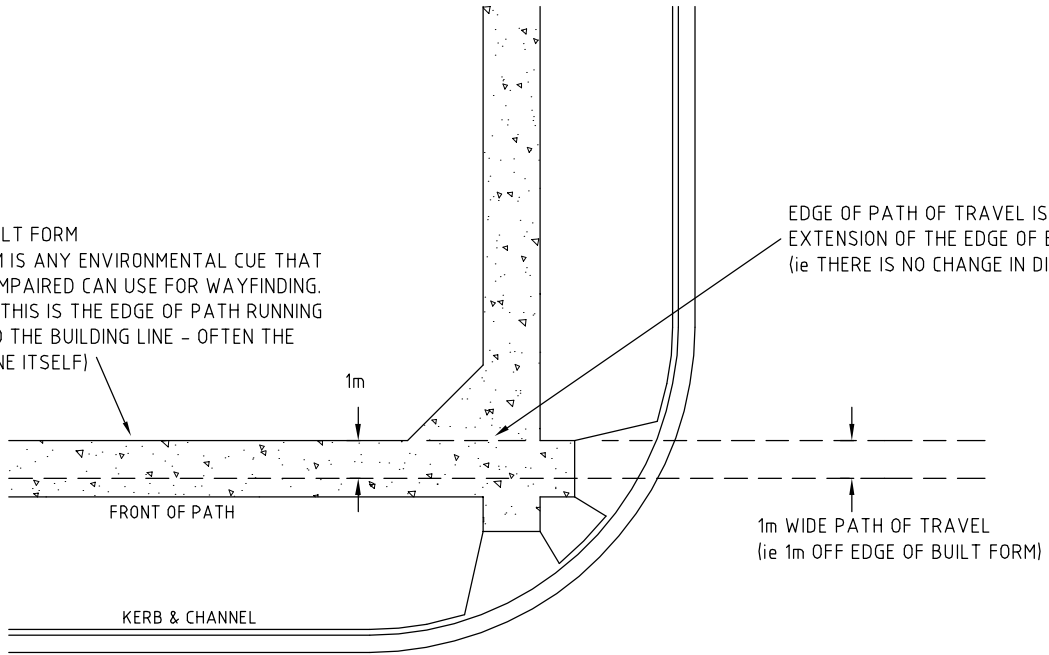
ISSUE DATE: 22/03/12

DIRECTIONAL TACTILE INDICATORS

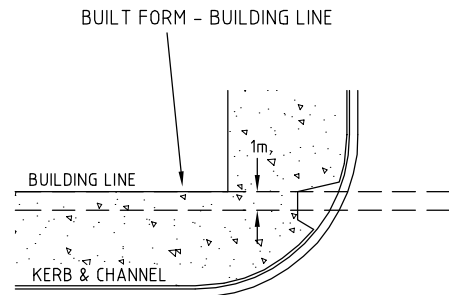
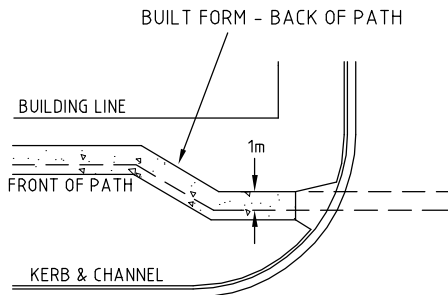
STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

EDGE OF BUILT FORM

(BUILT FORM IS ANY ENVIRONMENTAL CUE THAT THE SIGHT IMPAIRED CAN USE FOR WAYFINDING. TYPICALLY THIS IS THE EDGE OF PATH RUNNING CLOSEST TO THE BUILDING LINE - OFTEN THE BUILDING LINE ITSELF)



### EXAMPLES



THIS DRAWING IS INTENDED TO CLARIFY COUNCIL'S DEFINITION OF THE TRAVEL PATH FOR SITE IMPAIRED PEDESTRIANS. THIS DEFINITION IS BASED ON COUNCIL'S UNDERSTANDING OF AS1428.4 :2002

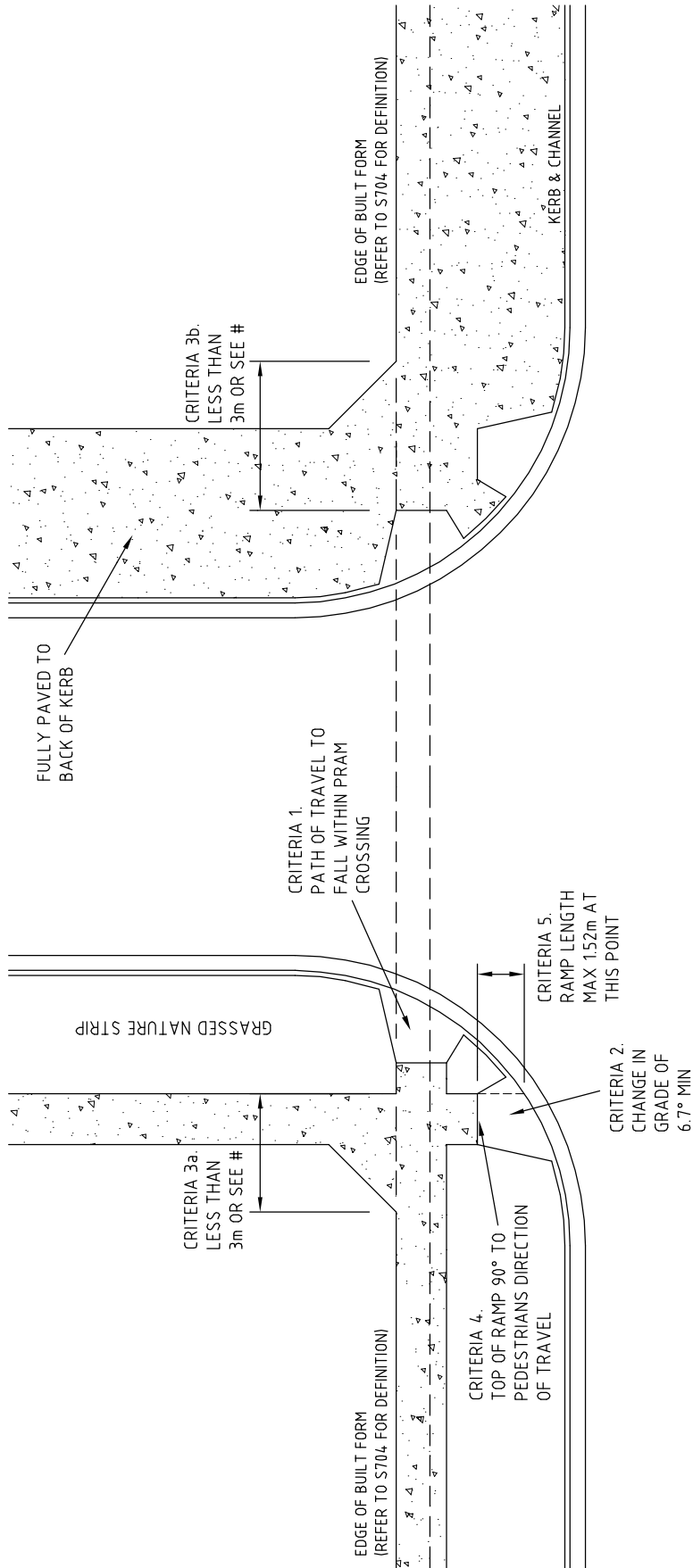
**KINGSTON CITY COUNCIL**  
STANDARD DRAWING

DRG. NO. **S704**

ISSUE DATE: 22/03/12

PATH OF TRAVEL FOR SIGHT IMPAIRED

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED



5 BASIC CRITERIA TO BE MET SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

1. 1m WIDE PATH OF TRAVEL (REFER TO S704 FOR DEFINITION) TO FALL WITHIN PRAM CROSSINGS
2. CHANGE IN GRADE BETWEEN RAMP AND PATH TO BE 6.7° MIN (REFER TO STD DRG S711)
3. a) EDGE OF NATURE STRIP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN NATURE STRIP PRESENT  
b) BACK OF PRAM RAMP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN AREA FULLY PAVED
4. BACK OF PRAM RAMP TO BE 90° TO THE PEDESTRIAN'S DIRECTION OF TRAVEL
5. THE SHORT SIDE OF THE PRAM RAMP TO BE A MAXIMUM OF 152m

# IF THERE IS A REASONABLE EXPECTATION THAT A VISION IMPAIRED PEDESTRIAN WILL BE ABLE TO RE-ESTABLISH THE CORRECT TRAVEL PATH WITHOUT ENDANGERING THEMSELVES THEN THE 3m LIMIT CAN BE INCREASED TO 8m.

NOTE - THESE CRITERIA (EXCLUDING THE NOTE MARKED AS #) ARE COUNCIL'S INTERPRETATION OF AS1428.4 :2002

# KINGSTON CITY COUNCIL

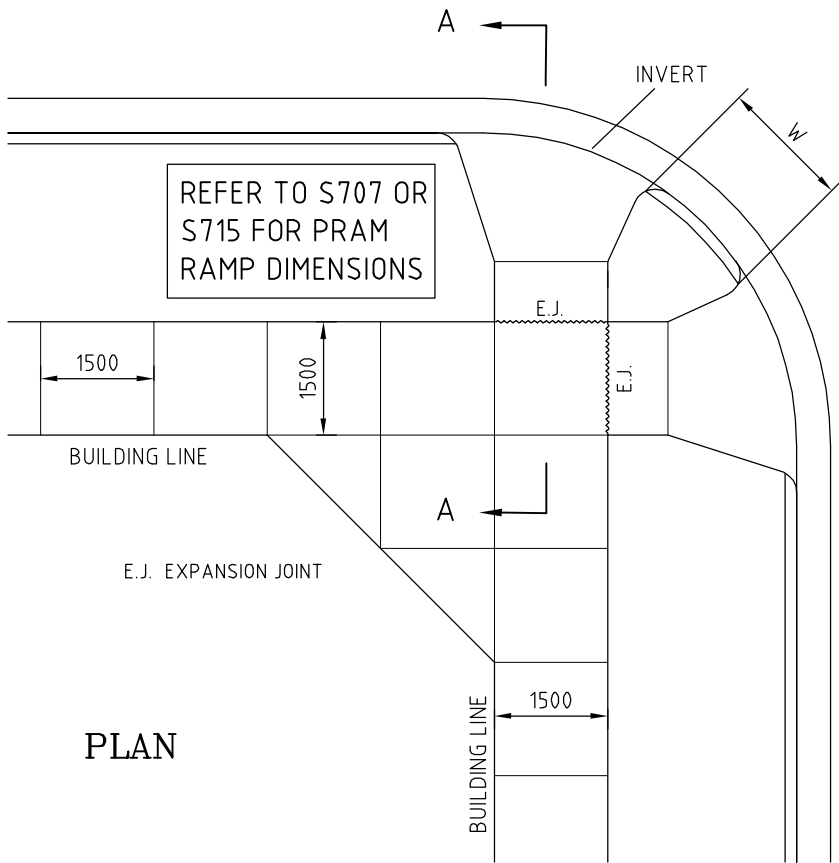
## STANDARD DRAWING

DRG. NO. **S705**

ISSUE DATE: 22/03/12

CRITERIA SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

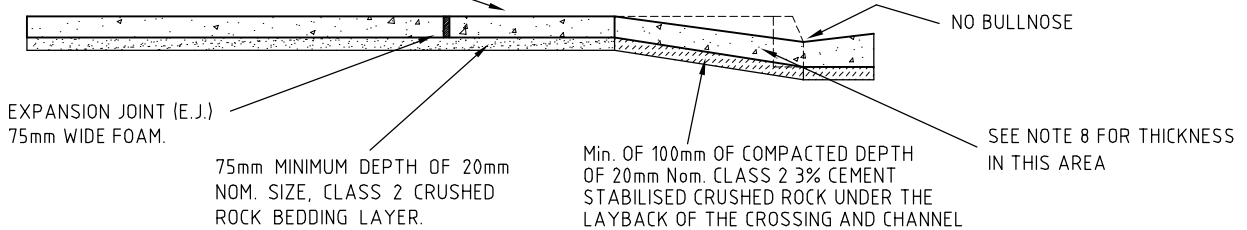


**NOTES:**

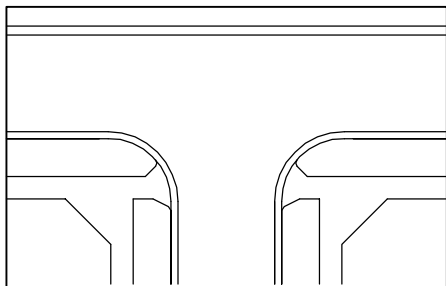
1. PRAM CROSSINGS AT 'T' INTERSECTIONS SHALL BE CONSTRUCTED AS PER DETAIL 1, ALL OTHER INFORMATION REMAINS THE SAME.
2. REFER TO DIMENSION 'W' ON THE PLAN, WHERE:  
 'W' > 1m, AREA BETWEEN CROSSINGS SHALL BE GRASSED.  
 1.0m > 'W' > 0.3m, AREA BETWEEN CROSSINGS SHALL BE CONCRETED. FULL HEIGHT KERB MUST BE MAINTAINED BETWEEN CROSSINGS.  
 'W' < 0.3m, REFER TO DETAIL 2 & CONTACT COUNCIL FOR APPROVED LOCATION.
3. THE SITE SHALL BE MAINTAINED SAFE AT ALL TIMES IN ACCORDANCE WITH A.S.1742.3
4. ALL PRAM CROSSINGS SHALL ALIGN WITH OPPOSING CROSSINGS & GAPS THROUGH CENTRAL MEDIANS.
5. KERB & CHANNEL SHALL BE REMOVED BETWEEN EXISTING JOINTS. WHERE 'W' IS < 1.2m THIS SECTION OF KERB & CHANNEL SHALL BE REPLACED AT THE SAME TIME.
6. ALL INVERTS SHALL BE CONSTRUCTED SO THAT NO WATER PONDS IN THE CHANNEL.
7. EXPANSION JOINTS TO BE 10mm WIDE & FILLED WITH CORK OR BITUMINOUS IMPREGNATED PARTICLEBOARD FOR FULL WIDTH & DEPTH OF EDGE.
8. ALL PAVING WITHIN 1200mm OF THE BACK OF KERB TO HAVE THE FOLLOWING THICKNESSES x RESIDENTIAL 100mm x INDUSTRIAL 150mm
9. ALL CROSSINGS SHOULD COMPLY WITH STANDARD DRAWINGS S701 TO S710 WHICH INCORPORATE COUNCIL'S INTERPETATION OF 'AS1428.4 : 2002 DESIGN FOR ACCESS AND MOBILITY - TACTILE INDICATORS' WITH SOME VARIATIONS.
10. ALL NEW CONCRETE FOR FOOTPATHS IN RESIDENTIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF **2.0%** BY WEIGHT IN GREY CEMENT.
11. ALL NEW CONCRETE FOR FOOTPATHS IN INDUSTRIAL AND COMMERCIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF **8.3%** BY WEIGHT IN GREY CEMENT.

32 MPa PRE-MIXED CONCRETE WITH STIPPLE TROWEL FINISH. 150mm THICK IN INDUSTRIAL AREAS, 75mm THICK IN RESIDENTIAL AREAS (EXCEPT WHERE NOTE 8 APPLIES)

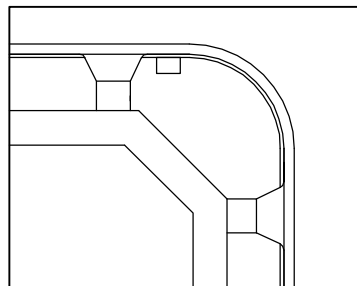
REFER TO S707 OR S715 FOR PRAM RAMP DIMENSIONS



**SECTION A - A**



**DETAIL 1**



**DETAIL 2**

WHERE 'W' IS LESS THAN 0.3m, CROSSINGS CANNOT BE CONSTRUCTED IN LINE WITH THE FOOTPATH AS SHOWN ABOVE. CROSSINGS TO BE OFFSET SIMILAR TO DETAIL 2. CONTACT COUNCIL FOR APPROVED LOCATION.

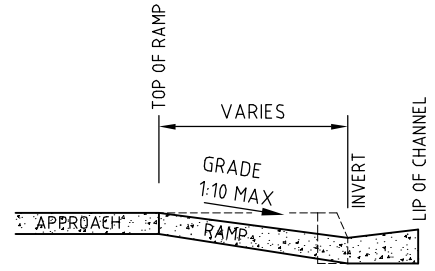
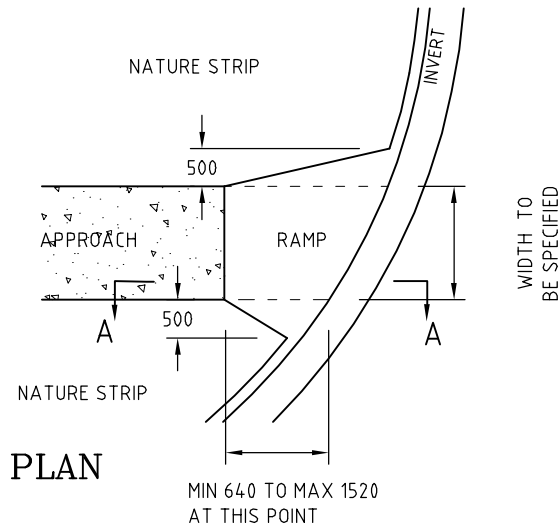
**KINGSTON CITY COUNCIL  
STANDARD DRAWING**

DRG. NO. **S706**

ISSUE DATE: 22/03/12

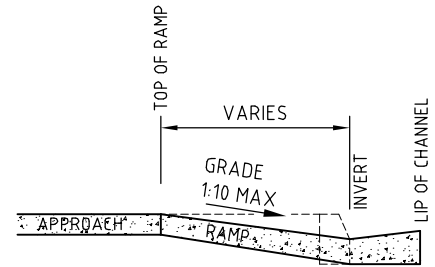
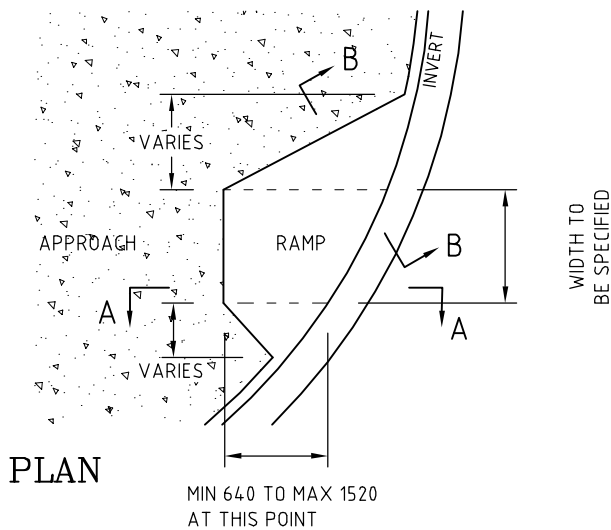
PRAM CROSSING LAYOUT

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

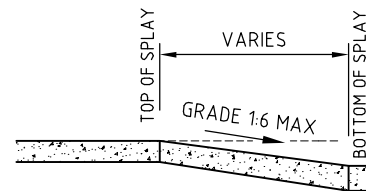


SECTION A - A

PRAM CROSSINGS BORDERING NATURE STRIP



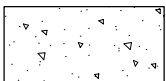
SECTION A - A



SECTION B - B

PRAM CROSSINGS IN FULLY PAVED AREAS

LEGEND

- SHARP CHANGE IN GRADE
-  PAVED SURFACE BEHIND PRAM RAMP

REFER TO S706 FOR PRAM CROSSING LOCATION AND MAKEUP

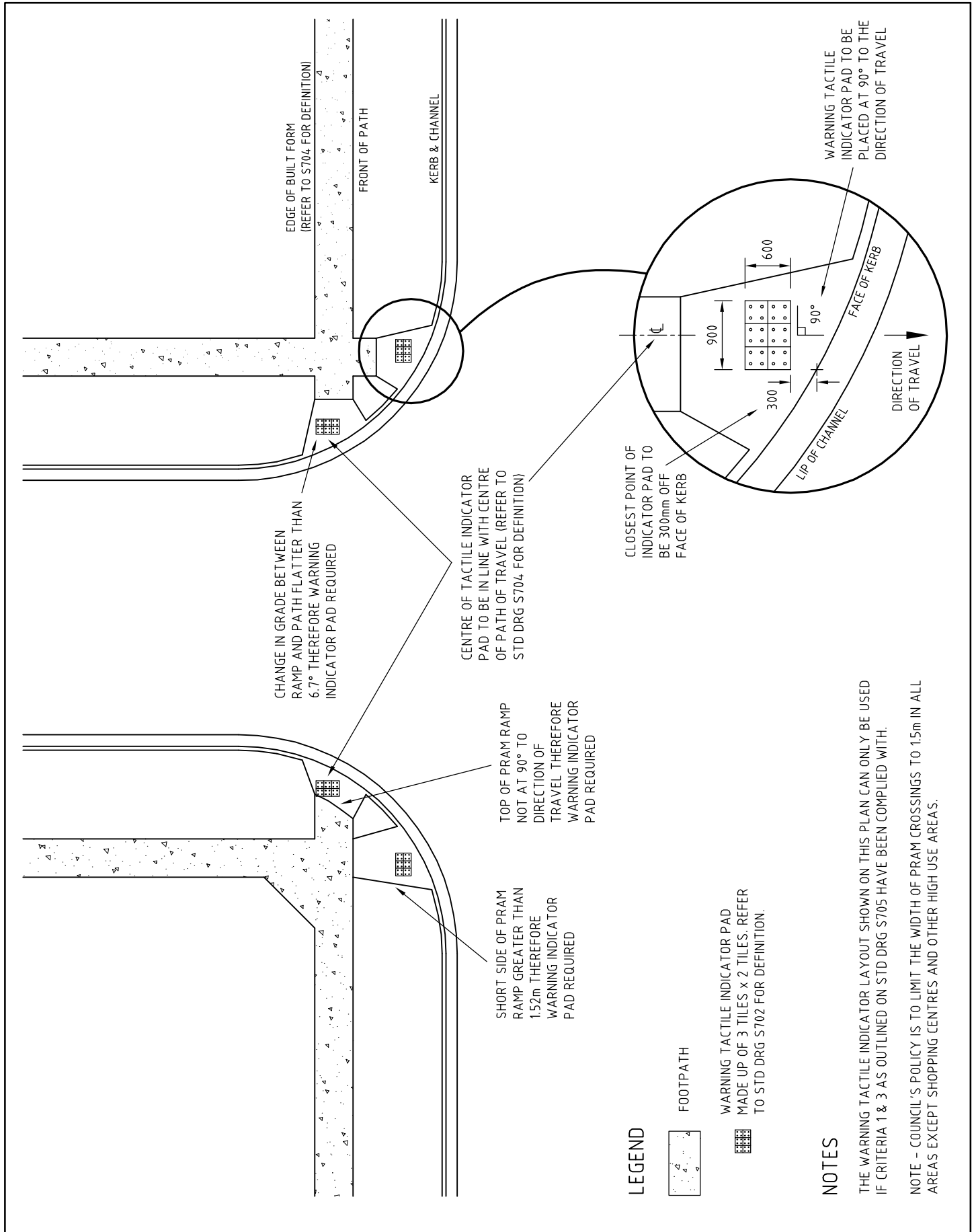
KINGSTON CITY COUNCIL  
STANDARD DRAWING

DRG. NO. S707

ISSUE DATE: 22/03/12

PRAM RAMP DIMENSIONS  
FOR PRAM CROSSINGS WITH TACTILE INDICATORS

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED



KINGSTON CITY COUNCIL  
STANDARD DRAWING

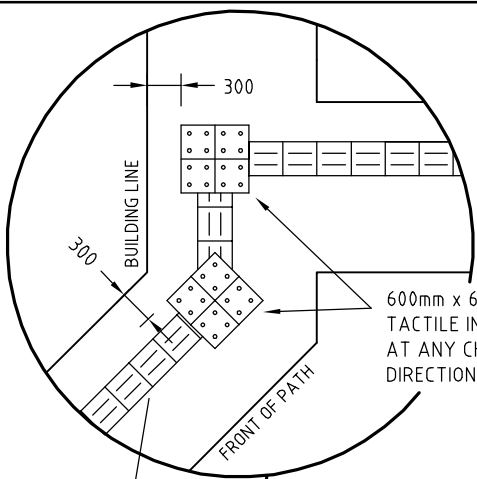
DRG. NO. S708

ISSUE DATE: 22/03/12

TACTILE INDICATOR LAYOUT  
FOR FLAT/ANGLED/LONG PRAM RAMP

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

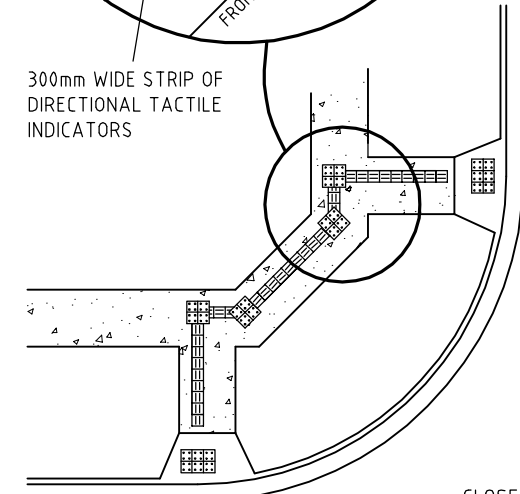




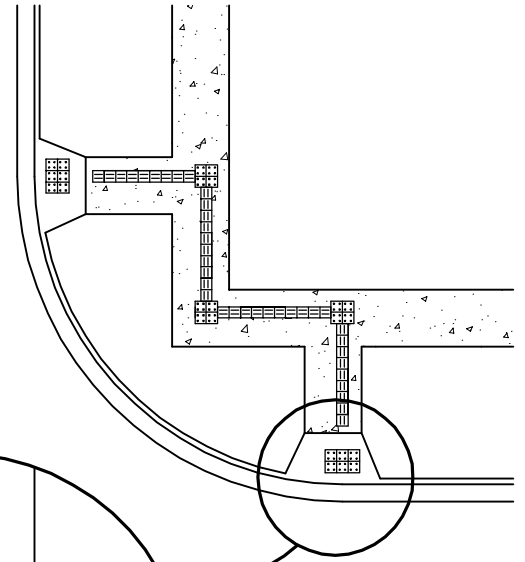
CENTRE OF DIRECTIONAL TACTILE INDICATOR STRIP TO LINE UP WITH CENTRE OF WARNING TACTILE INDICATOR PAD (TYPICAL)

600mm x 600mm WARNING TACTILE INDICATOR PAD AT ANY CHANGE IN DIRECTION

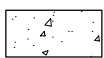
300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS



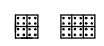
300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS TO STOP WITHIN 300mm OF TOP OF PRAM RAMP



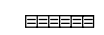
**LEGEND**



FOOTPATH

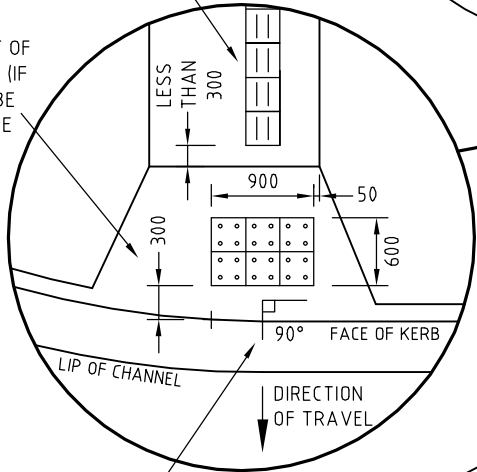


WARNING TACTILE INDICATOR PADS MADE UP OF 2 TILES x 2 TILES OR 3 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.



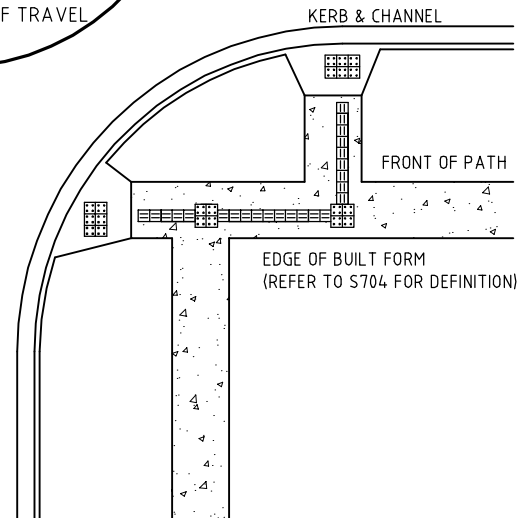
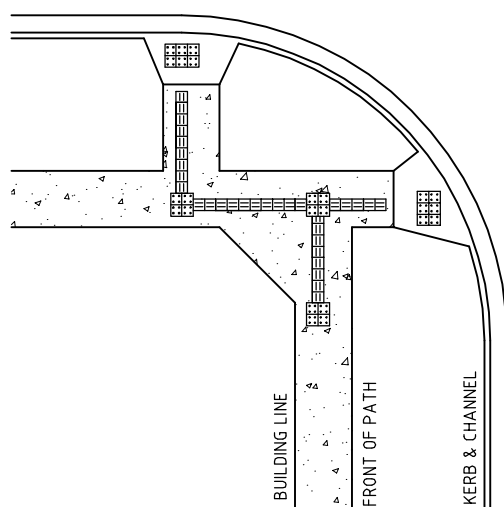
300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

CLOSEST POINT OF INDICATOR PAD (IF REQUIRED) TO BE 300mm OFF FACE OF KERB



CENTRE OF DIRECTIONAL TACTILE INDICATOR STRIP TO LINE UP WITH CENTRE OF WARNING TACTILE INDICATOR PAD (TYPICAL)

WARNING TACTILE INDICATOR PAD (IF REQUIRED) TO BE PLACED AT 90° TO THE DIRECTION OF TRAVEL



**KINGSTON CITY COUNCIL  
STANDARD DRAWING**

DRG. NO. **S709**

EXAMPLE TACTILE INDICATOR LAYOUT  
IF CRITERIA 1 IS NOT COMPLIED WITH  
(CRITERIA 1 - PATH OF TRAVEL TO BE WITHIN PRAM CROSSING)

ISSUE DATE: 22/03/12

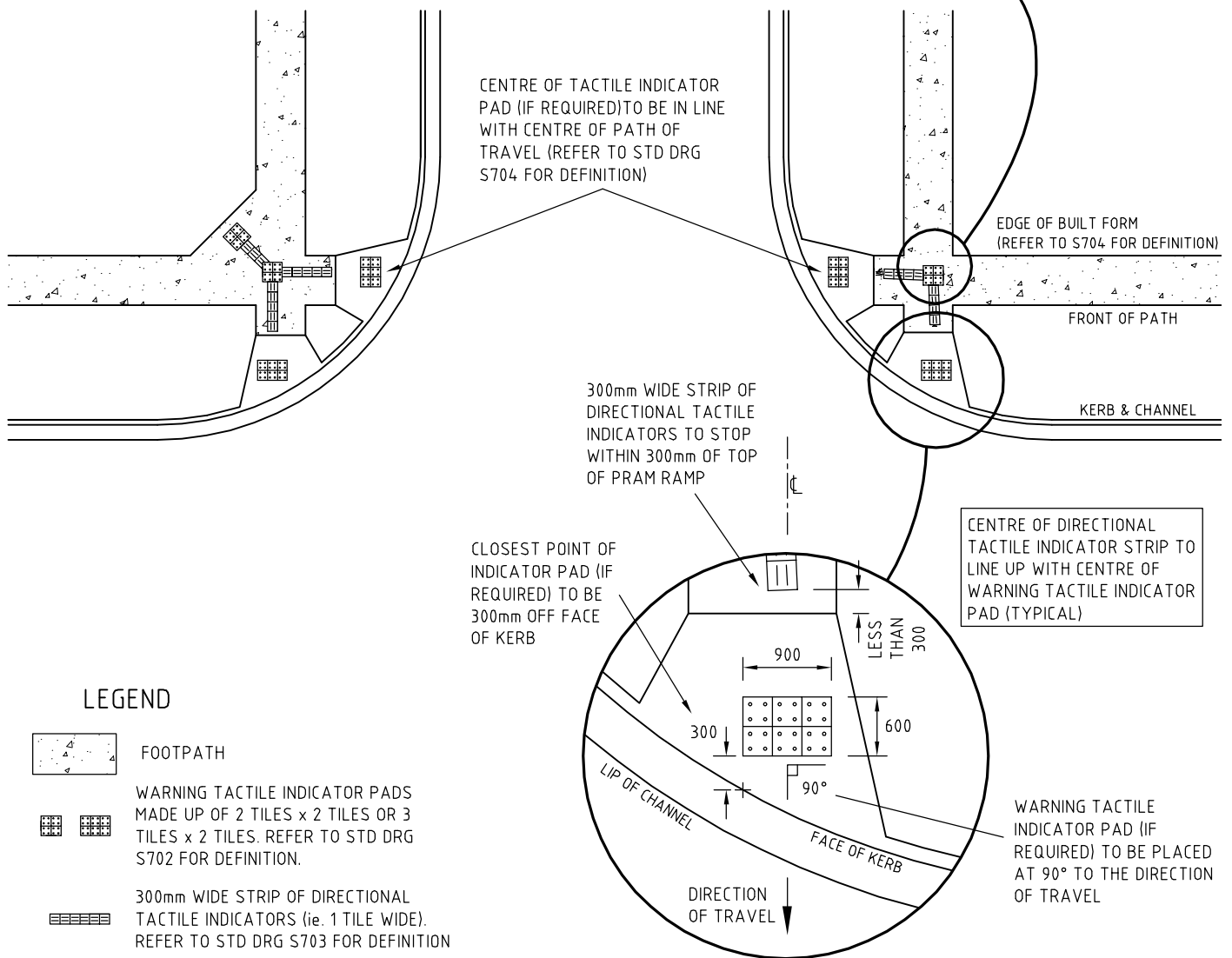
STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

**NOTES**




THE TACTILE INDICATOR LAYOUT SHOWN ON THIS PLAN ARE EXAMPLES THAT CAN BE USED IF CRITERIA 3 AS OUTLINED ON STD DRG S705 IS NOT COMPLIED WITH.

COUNCIL'S INTERPRETATION OF AS 1428.4 :2002 IS THAT WARNING TACTILE INDICATORS ON THE PRAM RAMP ARE ONLY REQUIRED IF CRITERIA 2, 4 OR 5 ARE NOT SATISFIED FOR THAT RAMP.

NOTE - COUNCIL'S POLICY IS TO LIMIT THE WIDTH OF PRAM CROSSINGS TO 1.5m IN ALL AREAS EXCEPT SHOPPING CENTRES AND OTHER HIGH USE AREAS.



**LEGEND**

-  FOOTPATH
-  WARNING TACTILE INDICATOR PADS MADE UP OF 2 TILES x 2 TILES OR 3 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.
-  300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

**KINGSTON CITY COUNCIL  
STANDARD DRAWING**

DRG. NO. **S710**

ISSUE DATE: 22/03/12

EXAMPLE TACTILE INDICATOR LAYOUT  
IF CRITERIA 3 IS NOT COMPLIED WITH  
(CRITERIA 3 - RAMP OR NATURE STRIP [AS REQUIRED] NOT WITHIN 3m OF BUILDING LINE)

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

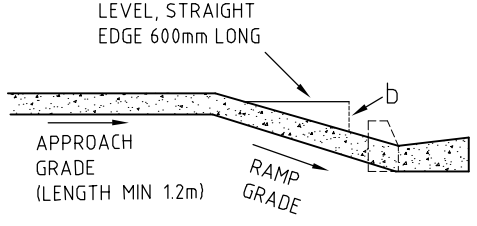
TABLES AND NOTES ON THIS PAGE ARE BASED ON COUNCIL'S INTERPRETATION OF AS1428.4. IF WARNING TACTILE INDICATORS ON A PRAM RAMP ARE NOT USED THEN THIS STANDARD REQUIRES THAT A CHANGE IN GRADE BETWEEN THE PRAM RAMP AND THE FOOTPATH BEHIND THE PRAM RAMP (OVER A LENGTH OF MIN 1.2m) IS TO BE A MINIMUM OF 6.7° (EQUIVALENT TO 1 IN 8.5)

SETOUT OF PRAM CROSSING CAN ONLY BE CARRIED OUT IF INVERT LEVEL OF CHANNEL AT CENTRE OF PRAM CROSSING IS KNOWN. NOTE THAT THE MAIN DESIGN CRITERIA FOR PRAM CROSSING LAYOUT IS NOW GRADE AND NOT SET LEVEL DIFFERENCES, WITH ONLY A SMALL RANGE OF ALLOWABLE GRADES TO WORK WITH. TO ACHIEVE THE REQUIRED GRADES AND TO MATCH IN WITH SURROUNDING FOOTPATH, THE SIZE OF INDIVIDUAL PRAM CROSSINGS WILL NEED TO BE VARIED, SUBJECT TO VARIOUS LIMITING FACTORS.

NOTE THAT DUE TO MAXIMUM GRADES ALLOWABLE TO CONFORM WITH WHEELCHAIR ACCESS REQUIREMENTS AND THE REQUIREMENT OF THE VISUALLY IMPAIRED TO HAVE A DISTINCT CHANGE IN GRADE IF TACTILE INDICATORS ARE TO BE AVOIDED, FOOTPATH APPROACHING A PRAM CROSSING CAN NOT HAVE FALL TOWARDS THE PRAM CROSSING IF TACTILE INDICATORS ARE NOT TO BE USED. IE APPROACHING FOOTPATH MUST EITHER HAVE ZERO LONGITUDINAL FALL OR FALL AWAY FROM THE CROSSING.

### FLAT PATH APPROACHING RAMP

$$b = 71\text{mm (+/- 5mm)}$$



HEIGHT 'b' IS TO BE MEASURED IN LINE WITH THE CENTRE OF THE PRAM RAMP. 'b' must be 71mm(+/- 5mm)

FOR MAXIMUM AND MINIMUM RAMP LENGTHS SEE DRAWING S715.

PRAM CROSSING WITH FLAT APPROACHING RAMP

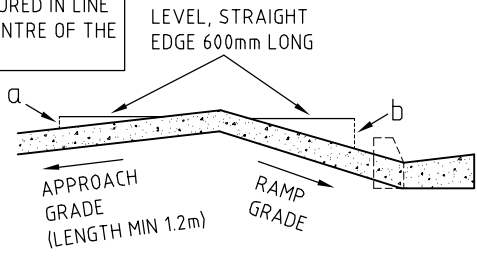
- STEP 1 - IF 'b' IS MORE THAN 71mm THE PRAM RAMP NEEDS TO BE RECONSTRUCTED AT A FLATTER GRADE
- STEP 2 - IF 'b' IS LESS THAN 71mm TACTILE INDICATORS ARE REQUIRED ON THE PRAM RAMP
- STEP 3 - IF APPROACH HAS FALL TOWARDS CHANNEL TACTILE INDICATORS MUST BE USED

OR  
RECONSTRUCT PRAM RAMP AND/OR APPROACH PATH TO COMPLY WITH ABOVE DIMENSIONS

### PATH FALLING AWAY FROM RAMP

$$a + b > 71\text{mm}$$

HEIGHTS 'a' AND 'b' ARE TO BE MEASURED IN LINE WITH THE CENTRE OF THE PRAM RAMP



PRAM CROSSING WITH PATH FALLING AWAY FROM RAMP

- STEP 1 - IF 'b' IS 76mm OR MORE THEN THE PRAM RAMP NEEDS TO BE RECONSTRUCTED AT A FLATTER GRADE
- STEP 2 - IF TABLES 1 OR 2 ARE NOT COMPLIED WITH THEN TACTILE INDICATORS ARE REQUIRED ON THE PRAM RAMP

OR  
RECONSTRUCT PRAM RAMP AND/OR APPROACH PATH TO COMPLY WITH TABLES 1 & 2

TABLE 1 (ALL MEASUREMENTS IN mm)

IF 'b' EQUALS	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41
THEN 'a' MUST BE GREATER THAN OR EQUAL TO	0	0	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30

TABLE 2 (ALL MEASUREMENTS IN mm)

IF 'a' EQUALS	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
THEN 'b' MUST BE GREATER THAN OR EQUAL TO	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41

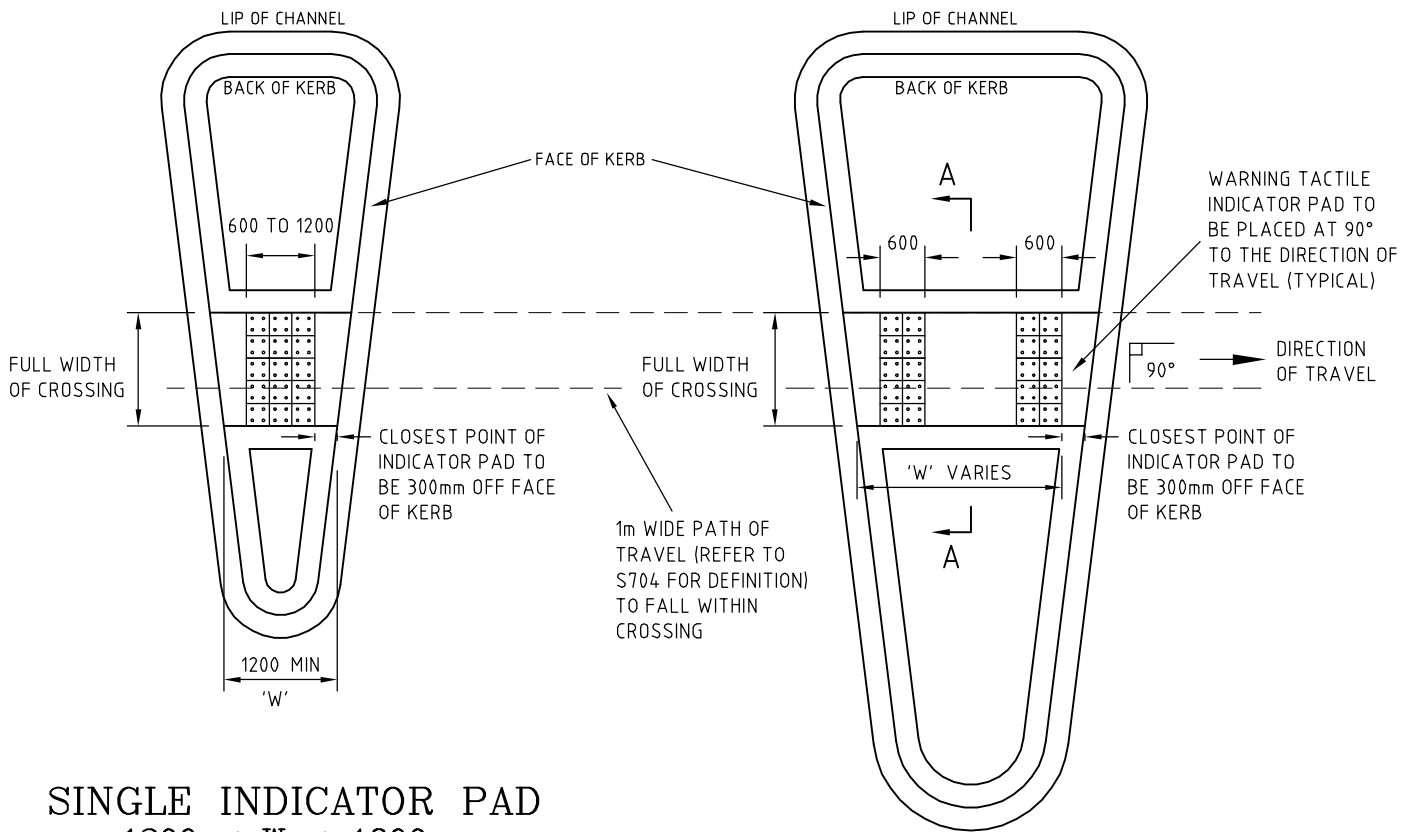
## KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. S711

ISSUE DATE: 22/03/12

CHANGE OF GRADE BETWEEN APPROACH AND RAMP  
SO THAT TACTILE INDICATORS ARE NOT REQUIRED

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED



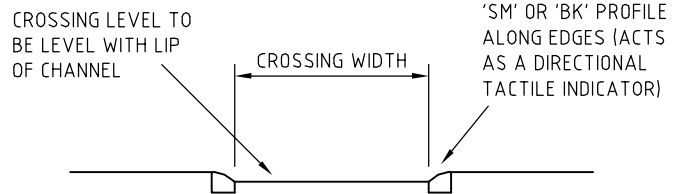
**SINGLE INDICATOR PAD**  
 $1200 < W < 1800$

**TWO INDICATOR PADS**  
 $W > 1800$

**LEGEND**



WARNING TACTILE INDICATOR PADS.  
 REFER TO STD DRG S702 FOR  
 DEFINITION.



**SECTION A - A**

**NOTES**

THE TACTILE INDICATOR LAYOUTS ABOVE ASSUME CROSSINGS ARE CUT THROUGH (REFER TO SECTION A-A). REFER TO VICROADS STD DRG SD2032 FOR AN EXAMPLE OF AN ISLAND WITH PRAM RAMPS.

COUNCIL'S POLICY IS TO PLACE WARNING TACTILES IN ALL SPLITTER ISLANDS (AS1428.4 DOES NOT REQUIRE WARNING TACTILES IN SPLITTER ISLANDS WHERE PEDESTRIANS ARE ONLY CROSSING NARROW ROADS).

NOTE - COUNCIL'S POLICY IS TO LIMIT THE WIDTH OF PRAM CROSSINGS TO 1.5m IN ALL AREAS EXCEPT SHOPPING CENTRES AND OTHER HIGH USE AREAS.

**KINGSTON CITY COUNCIL**  
**STANDARD DRAWING**

DRG. NO. **S712**

ISSUE DATE: 22/03/12

**SPLITTER ISLAND**  
**EXAMPLE TACTILE INDICATOR LAYOUT**

STANDARD DRAWING ISSUE  
 CURRENT AT TIME OF  
 CONSTRUCTION MUST BE USED

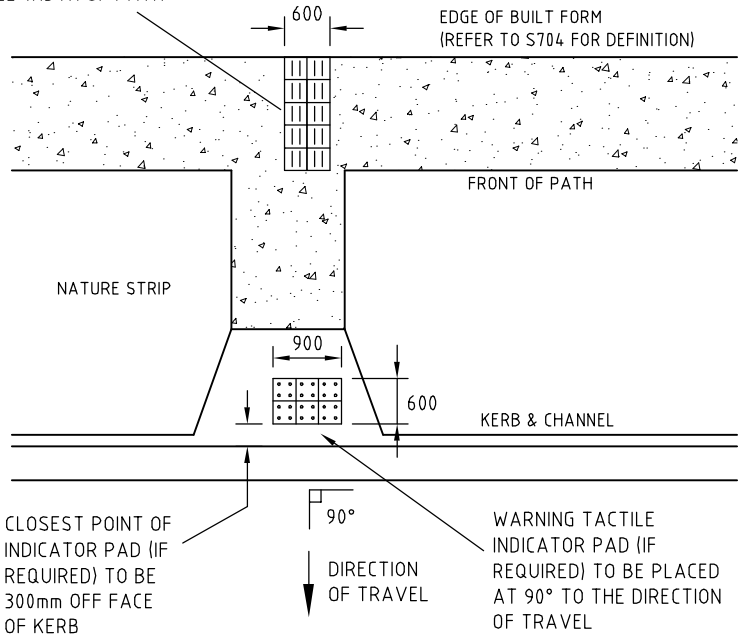
**NOTES**

COUNCIL'S INTERPRETATION OF AS 1428.4 :2002 IS THAT ALL MID BLOCK CROSSINGS REQUIRE DIRECTIONAL TACTILE INDICATORS. WARNING TACTILE INDICATORS ON THE PRAM RAMP ARE ONLY REQUIRED IF CRITERIA 2, 4 OR 5 AS SPECIFIED ON STD DRG S705 ARE NOT SATISFIED.

NOTE - COUNCIL'S POLICY IS TO LIMIT THE WIDTH OF PRAM CROSSINGS TO 1.5m IN ALL AREAS EXCEPT SHOPPING CENTRES AND OTHER HIGH USE AREAS.

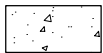
CENTRE OF DIRECTIONAL TACTILE INDICATOR STRIP TO LINE UP WITH CENTRE OF WARNING TACTILE INDICATOR PAD (TYPICAL)

DIRECTIONAL TACTILE INDICATOR PAD ACROSS FULL WIDTH OF PATH



**WITH NATURE STRIP**

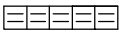
**LEGEND**



FOOTPATH



WARNING TACTILE INDICATOR PADS MADE UP OF 3 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.

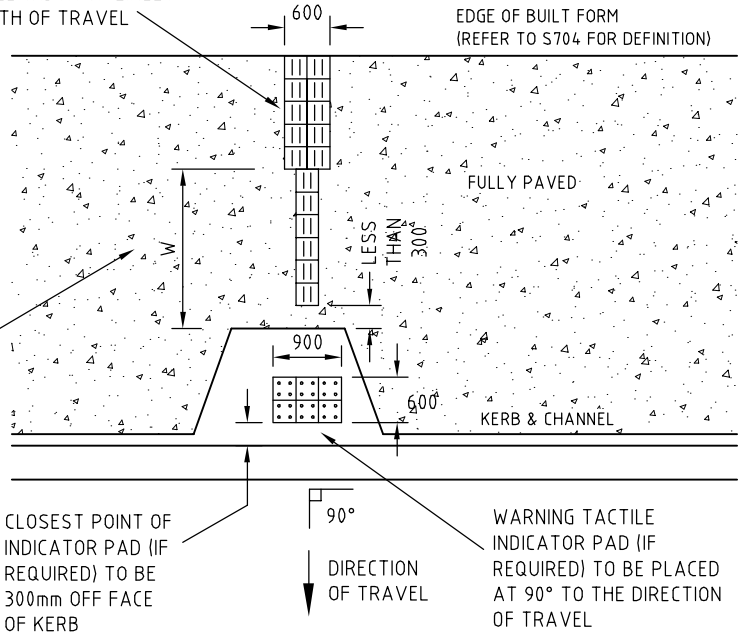


300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (i.e. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

IF 'W' < 3m THEN TACTILE INDICATORS ARE NOT REQUIRED IN THIS AREA.

IF 'W' > 3m THEN CENTRED 300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS REQUIRED TO WITHIN 300mm OF TOP OF PRAM RAMP.

DIRECTIONAL TACTILE INDICATOR PAD ACROSS FULL WIDTH OF LIKELY PATH OF TRAVEL



**FULLY PAVED**

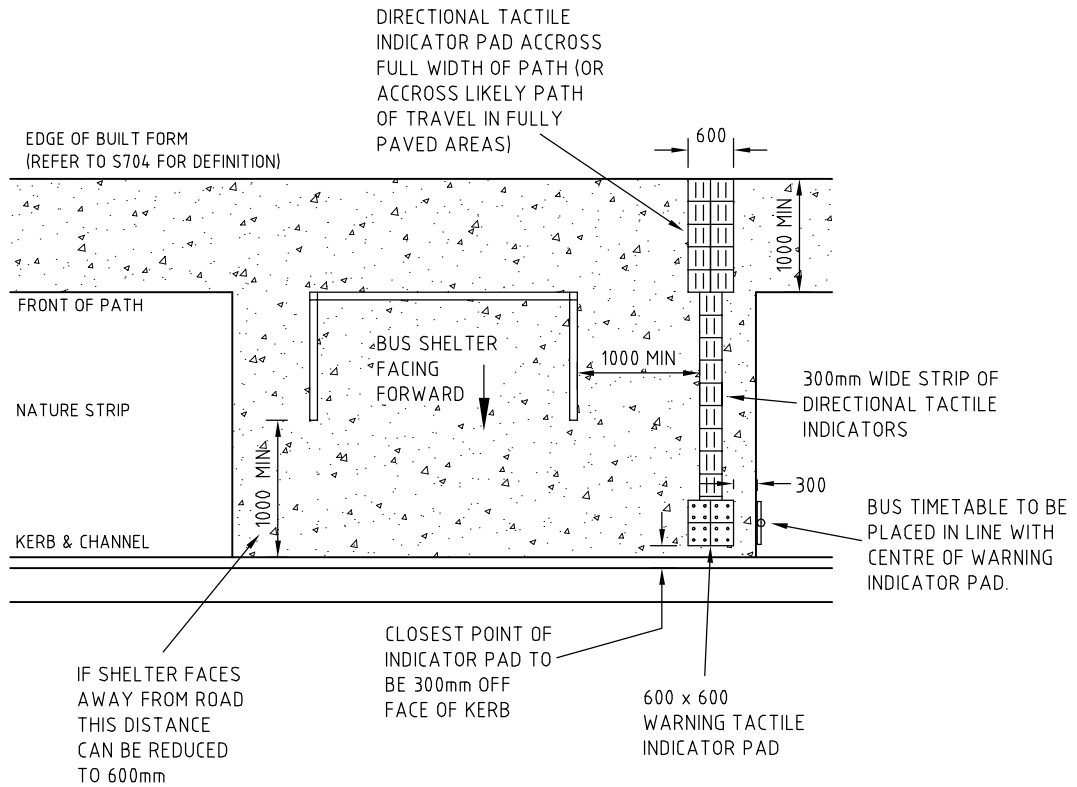
**KINGSTON CITY COUNCIL  
STANDARD DRAWING**

DRG. NO. **S713**

ISSUE DATE: 22/03/12

MID BLOCK CROSSINGS  
TACTILE INDICATOR LAYOUT

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED



## TACTILE INDICATOR LAYOUT WITH OR WITHOUT SHELTER

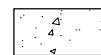
### NOTES

ALL BUS STOPS REQUIRE TACTILE INDICATORS ON THE DOWNSTREAM END OF THE BUS STOP.

IF THE ROAD SURFACE IS FLUSH WITH THE PEDESTRIAN WAITING AREA (ie. NO KERB & CHANNEL) THEN EXTRA TACTILE INDICATORS ARE REQUIRED IN ACCORDANCE WITH APPENDIX E OF AS1428.4 :2002.

BUS OVERHANG TO BE TAKEN INTO ACCOUNT WHERE A BUS EXECUTES A TURN IN THE VICINITY OF THE BUS BAY. THIS MAY RESULT IN THE TACTILE INDICATORS BEING SET BACK FURTHER THAN THE 300mm SHOWN.

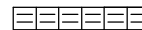
### LEGEND



PAVED SURFACE



WARNING TACTILE INDICATOR PAD MADE UP OF 2 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.



300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

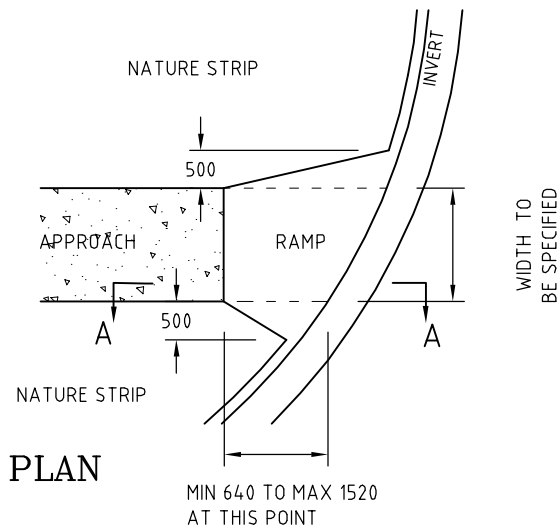
**KINGSTON CITY COUNCIL**  
STANDARD DRAWING

DRG. NO. **S714**

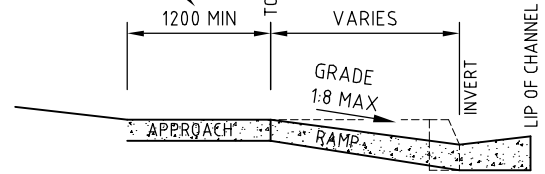
ISSUE DATE: 22/03/12

TACTILE INDICATOR LAYOUT AT BUS STOPS

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED

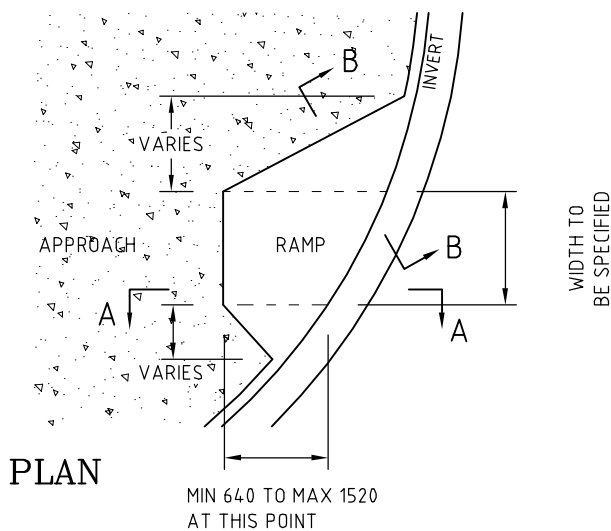


APPROACH MUST ACHIEVE A CHANGE IN GRADE TO RAMP OF MIN 6.7° (EQUIV TO 1:8.5)

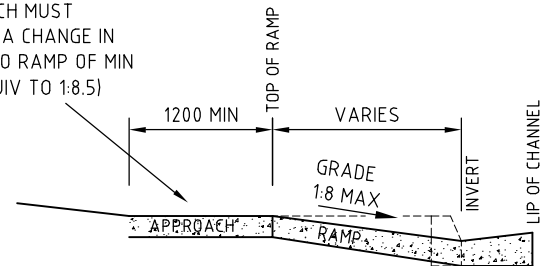


SECTION A - A

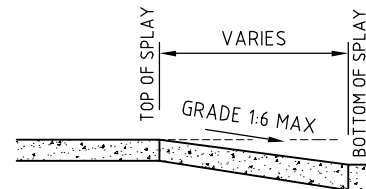
PRAM CROSSINGS BORDERING NATURE STRIP



APPROACH MUST ACHIEVE A CHANGE IN GRADE TO RAMP OF MIN 6.7° (EQUIV TO 1:8.5)



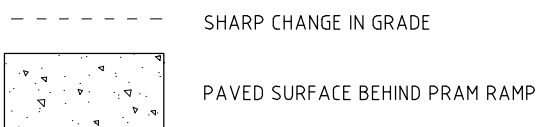
SECTION A - A



SECTION B - B

PRAM CROSSINGS IN FULLY PAVED AREAS

LEGEND



REFER TO S706 FOR PRAM CROSSING LOCATION AND MAKEUP

KINGSTON CITY COUNCIL  
STANDARD DRAWING

DRG. NO. S715

ISSUE DATE: 22/03/12

PRAM RAMP DIMENSIONS  
FOR CROSSINGS WITHOUT TACTILE INDICATORS

STANDARD DRAWING ISSUE  
CURRENT AT TIME OF  
CONSTRUCTION MUST BE USED