



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

097. 13 DPWH
04-07-2016

06 APR 2016

DEPARTMENT ORDER)
NO. **73**)
Series of 2016)

SUBJECT: DPWH STANDARD FOR OBJECT MARKINGS, MARKINGS ON CURB AND ISLAND, AND APPROACH MARKINGS TO ISLANDS AND OBSTRUCTIONS

It has been observed that the application of pavement approach markings and object markings on obstructions along our national roads are not uniform despite the presence of the Highway Safety Design Standards Part 2: Road Signs and Pavement Markings Manual, May 2012 Edition.

In order to provide uniformity, the following standards as prescribed in the said Manual, are hereby reiterated, for guidance and compliance of all concerned.

The following words and phrases, as used in this issuance, shall have the following meaning:

ROADWAY is that portion of a highway improved, designed or ordinarily used for vehicular travel and parking lanes, but exclusive of the sidewalk, berm, shoulder even though such sidewalk, berm or shoulder is used by persons riding bicycles or other human-powered vehicles. In the event a highway includes two or more separate roadways, the term roadway as used in this Manual shall refer to any such roadway separately, but not to all such roadways collectively.

ROADWAY OBJECTS are physical obstruction within the roadway that constitute serious hazard to traffic, including installations designed for the control of traffic such as bridge supports, monuments, traffic islands and others.

ROADSIDE HAZARD is any roadside object or feature, with a diameter greater than 100mm that is located on or near the roadway and which is likely to create a danger to the occupants or riders of any vehicle leaving the carriageway.

ISLAND is a defined area between traffic lanes for control of vehicular movements, for toll collection, or for pedestrian refuge. It includes all end protection and approach treatments. Within an intersection area, a median or an outer separation is considered to be an island.

MEDIAN ISLAND is the physical island at the center of a divided roadway separating traffic flows.

CHANNELIZING ISLAND is designed to control and direct traffic movement, usually turning.

I. OBJECT MARKINGS

A. ROADWAY OBJECTS

Obstructions within the roadway, if not illuminated, shall be marked with reflectorized hazard markers (refer to Section 7 of the Highway Safety Design Standards Part 2 May 2012 Edition).

For additional emphasis, it is also advisable to paint the face of an obstruction (except traffic islands) facing the oncoming traffic with no less than *five alternating reflectorized black and white stripes*. The stripes shall slope downward at an angle of 45 degrees towards the side on which the traffic is to pass the obstruction (See Annex 1 and 2).

The black and white stripes shall be uniform with no less than 100mm in width for each stripe. For large surfaces, such as bridge piers, stripes may require width of 300mm.

B. ROADSIDE HAZARD

Adjacent objects which are not likely to be hit unless a vehicle runs off the road, such as guardrails, trees and utility posts, must be painted with *reflectorized white*. Otherwise, objects so close to the edge of carriageway as to constitute definite hazard, such as underpass piers, bridge abutments, handrails, end of traffic barriers, utility poles, and culvert headwalls, shall be painted and marked in accordance with Section IA.

C. MARKING ON CURBS AND ISLANDS

Reflectorized yellow shall be used on the approach end/s (nosing) of raised medians and curbs of islands located in the direction of traffic flow especially on curbs directly ahead of traffic at "T" and offset intersections.

Where the curbs of the islands or sidewalk become parallel to the direction of traffic flow, *reflectorized white paint* shall be provided on the curb (See Annex 3, 4 and 5).

II. APPROACH MARKINGS TO ISLANDS AND OBSTRUCTIONS

The ends of islands first approached by traffic should be preceded by diverging longitudinal pavement markings on the roadway surface, to guide vehicles into desired paths of travel along the island edge.

Approach pavement markings for islands and obstructions shall consist of a tapered line or lines extending from the center line or the lane line to a point 300mm to 800mm to the right-hand side, or to both sides, of the approach end of the obstruction ((See Annex 3, 4 and 5).

The total length of the transition line/s depends on the width of the island or obstruction but should generally be a taper of 1 in 25 for roads on which the 85th percentile speed is below 60 kph and 1 in 50 for roads with higher 85th percentile speeds.

In addition to the approach markings, the following are also prescribed:

A. DIAGONAL CROSSHATCH MARKINGS

Reflectorized white diagonal crosshatch markings shall be used in addition to the approach markings for roadway objects / median islands separating opposing directions of traffic. The width of the diagonal bars (at 45° to the direction of travel) is 450mm and gaps between bars should generally be 4m minimum on urban roads and 8m on rural roads (See Annex 3).

B. CHEVRON CROSSHATCH MARKINGS


Reflectorized white chevron crosshatch markings shall be used in addition to the approach markings for roadway objects / islands separating same directions of traffic. The width of the chevron crosshatch is 450mm and gaps between bars should generally be 2-4m apart in urban roads (See Annex 4 and 5).


The abovementioned standards shall be strictly adopted in the design, construction and maintenance of all national roads.

Specifications for the reflectorized markings to be used shall conform to Department Order No. 103, series of 2013- DPWH Standard Specification for Item 612- Reflective Thermoplastic Stripping Materials (Solid Form) with Performance Requirements.

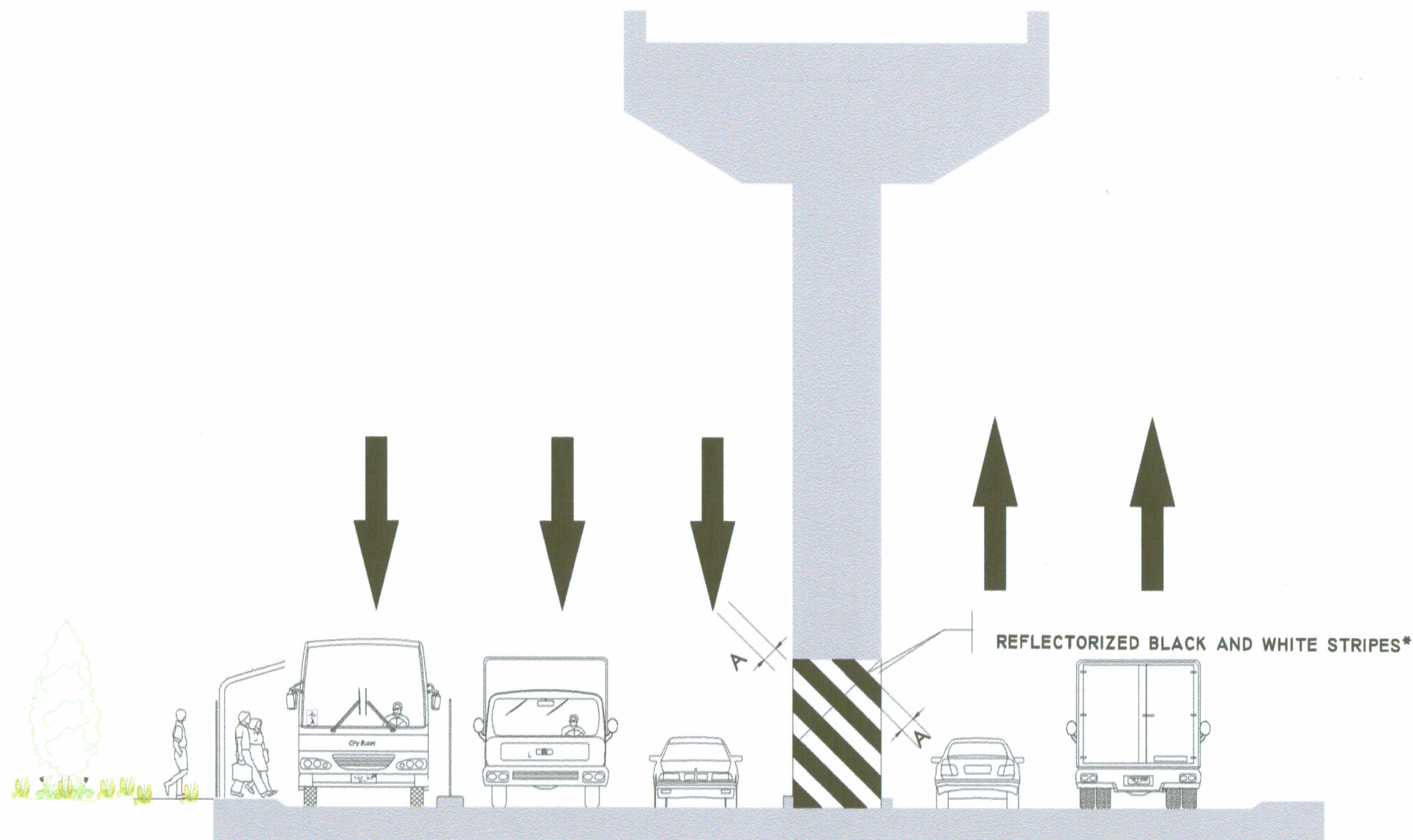
Specifications for the reflectorized hazard markers shall conform to Department Order No. 158, series of 2015- Amendments to DPWH Standard Specification for Item 605- Road Sign.

This Order shall take effect immediately.


ROGELIO L. SINGSON
Secretary

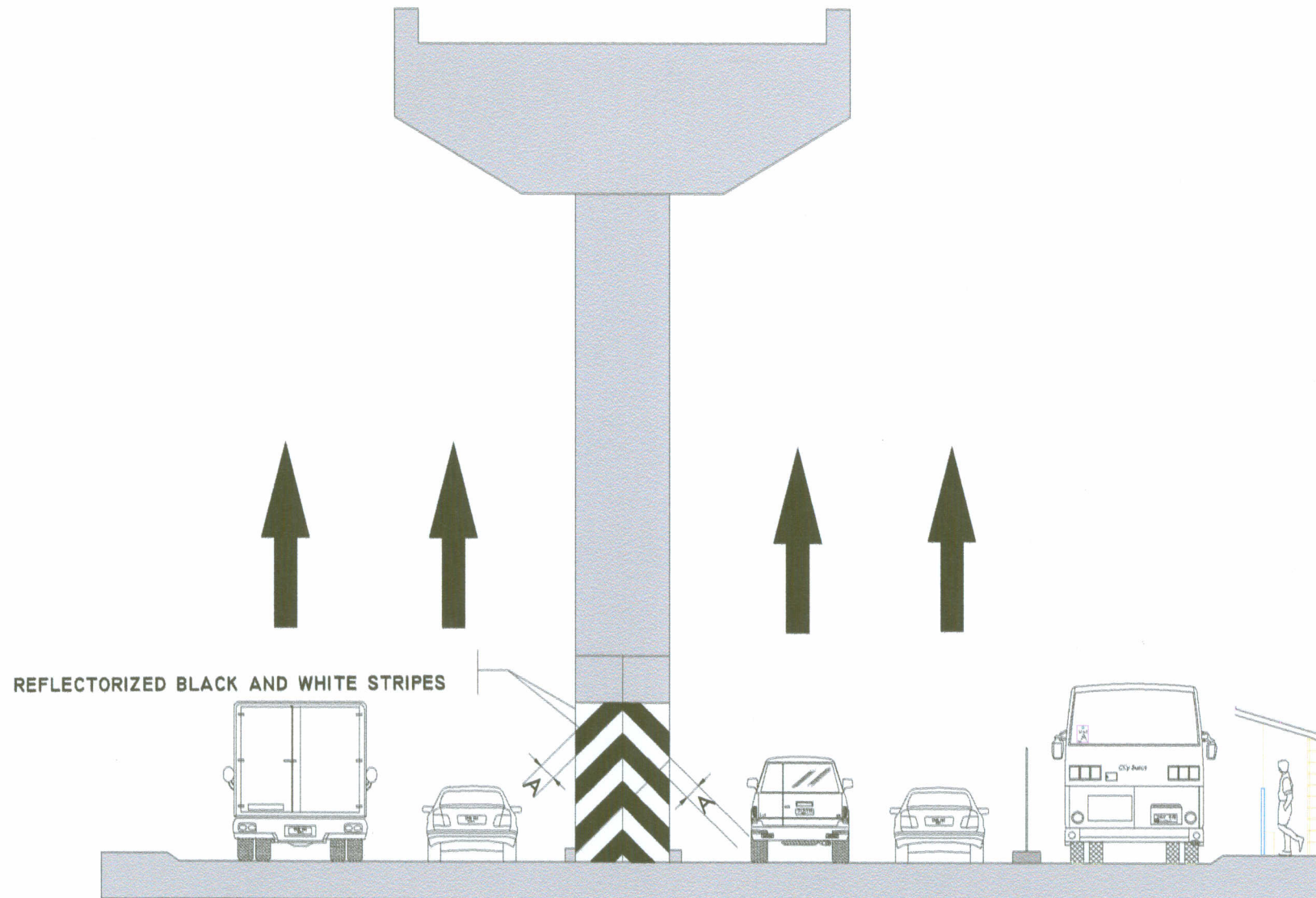
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ANNEX 1: OBJECT MARKER FOR ROADWAY OBJECT SEPARATING OPPOSING DIRECTIONS OF TRAFFIC FLOW



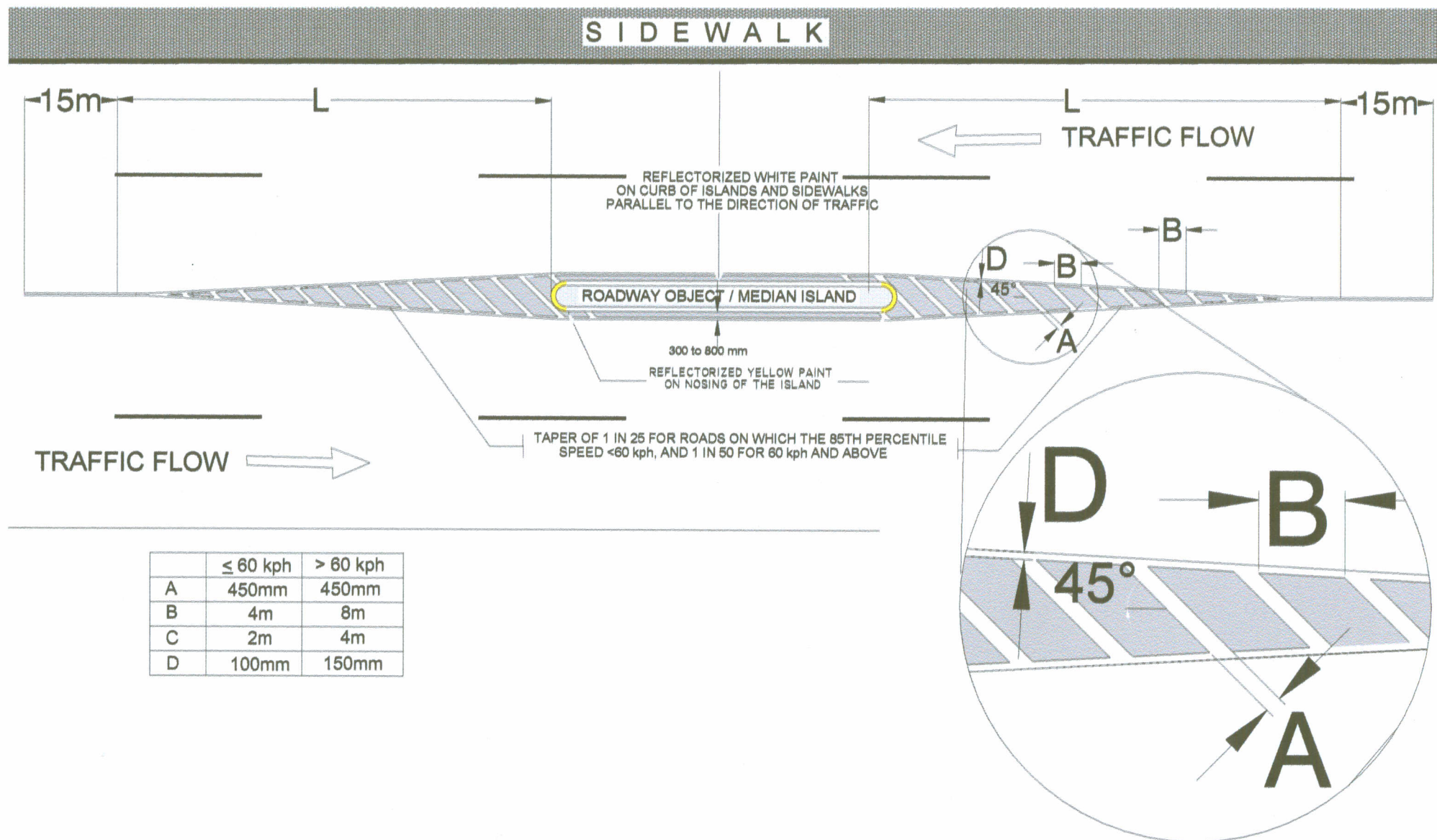
*REFLECTORIZED BLACK AND WHITE STRIPES SHALL BE UNIFORM WITH NO LESS THAN 100mm IN WIDTH FOR EACH STRIPE. FOR LARGE SURFACES SUCH AS BRIDGE PIERS, STRIPES MAY REQUIRE WIDTH OF 300mm.

ANNEX 2: OBJECT MARKER FOR ROADWAY OBJECT SEPARATING
SAME DIRECTIONS OF TRAFFIC FLOW

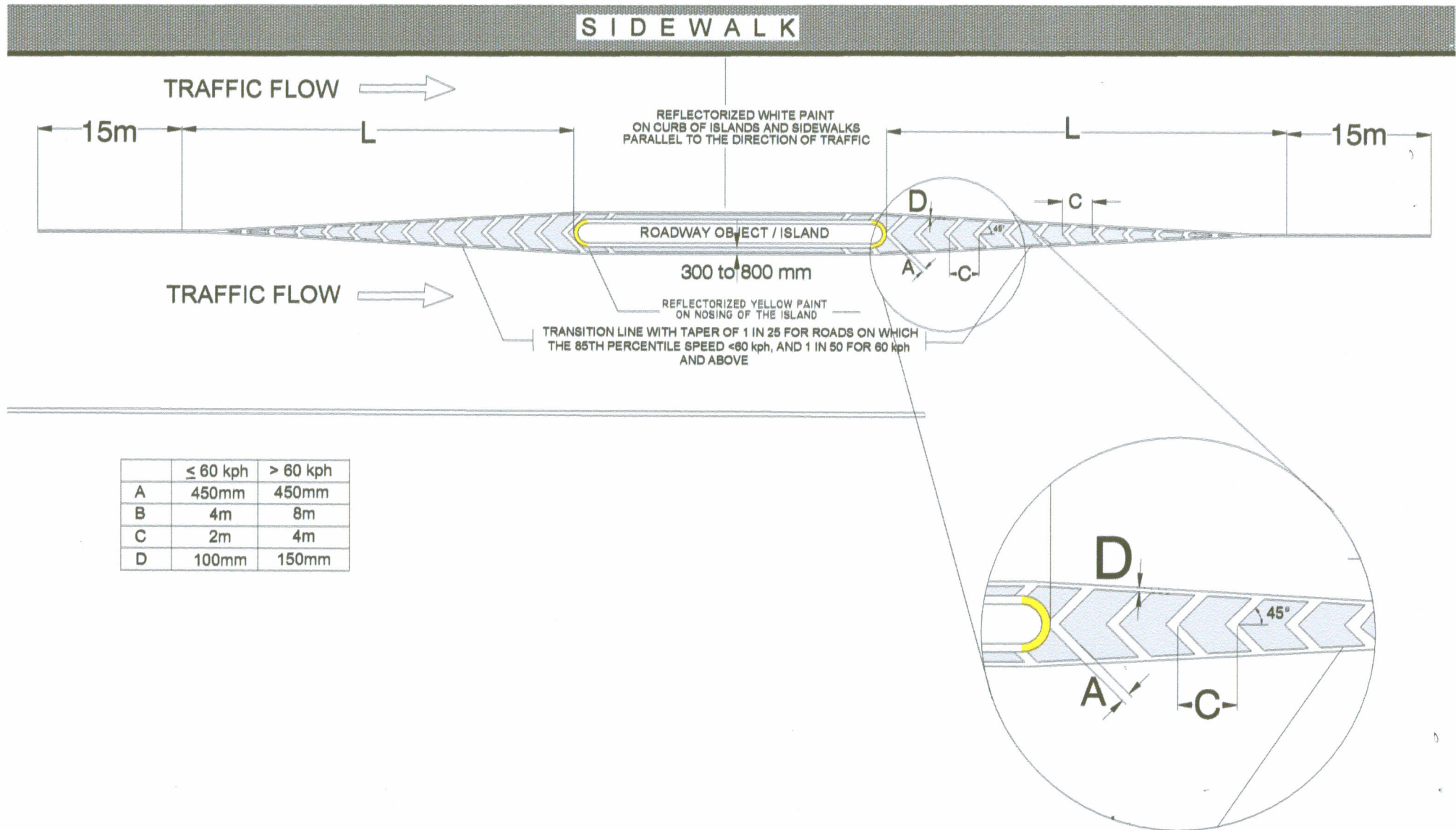


*REFLECTORIZED BLACK AND WHITE STRIPES SHALL BE UNIFORM WITH NO LESS THAN 100mm IN WIDTH FOR EACH STRIPE. FOR LARGE SURFACES SUCH AS BRIDGE PIERS, STRIPES MAY REQUIRE WIDTH OF 300mm.

ANNEX 3: APPROACH MARKINGS FOR ROADWAY OBJECT/ISLAND SEPARATING OPPOSING DIRECTIONS OF TRAFFIC



ANNEX 4: APPROACH MARKINGS FOR ROADWAY OBJECT/ISLAND SEPARATING SAME DIRECTIONS OF TRAFFIC



ANNEX 5: APPROACH MARKINGS FOR CHANNELIZING ISLANDS SEPARATING SAME DIRECTIONS OF TRAFFIC

