LEC-10
TRAFFIC SIGNS

Traffic Control Devices

Traffic devices include all

- Signs
- Markings
- Signals

Objectives

- To regulate
- To warn
- To guide traffic movements and thereby
- To ensure safe and smooth flow of traffic movements

General Requirements

Traffic control devices should:

- ***Fulfill a need -*** must be reasonable and appropriate for the traffic requirements at the locations used

- ***Command attention & respect of drivers and pedestrian -*** . must not be used where it is not warranted; otherwise it will invite drivers to disregard and to have less respect for traffic control devices in general.

- Convey ***a clear, simple meaning*** - legible at long range and understandable at a glance.

- be placed so *as* to give users time for proper response

- be uniform in ***design and application*** - the size, shape, color of the device/letter/Symbol, mounting height, and lighting should be uniform and consistent

- be visible both ***at day & night***

- be ***maintained at high standard*** - to ensure legibility and visibility

- Generally as some control devices impose restriction on vehicle movements — it is recommended that –

    - These should be used conservatively to avoid disrespect by the drivers — if used in excess, tend to lose their effectiveness.

    - Moreover, these should ***not be*** **used** alone, where enforcement is required to compel drivers to obey them.

How these requirements are met?

- Design
- Placement
- Uniformity
- Operation
- Maintenance

Traffic signs are mainly used to -

- inform drivers about regulations
- adjust their lane position, speed
- guide them to reach their points of interest

Functional Classes of Traffic Signs are:

- ***Mandatory Signs*** **(shall follow)**
  - inform users of traffic laws or regulations
  - the violation of these signs is a legal offence
  - these are usually circular in shape with red border, white background
    - **Regulatory-** Regulatory Signs are traffic signs intended to instruct road users on what they must or should do under a given set of circumstances. They give users notice of traffic laws and regulations.
      - **Examples**
        - slow/stop
        - keep right
        - restriction on speed, size, weight
        - One way traffic etc.
    - **Prohibitory-** Prohibitory traffic signs are used to prohibit certain types of maneuvers or some types of traffic.
      - **Examples**
        - no right/left/U turn
        - no entry for vehicle types
        - no overtaking
        - no horn
        - No waiting/parking etc.
      - **Shape:** Most mandatory road signs are Circular having white symbols on a blue background with white border or having black symbols on a white background with a red border, although the latter is also associated with prohibitory signs.
    - **Special mandatory signs for priority typed intersections**
      - **STOP-** A stop sign is a traffic sign, usually employed

at road junctions, that instructs drivers to stop and then to proceed only if the way ahead is clear.

Used when vision is obstructed.

In the United States and Canada they are commonly used in residential areas, and near places where children play, as a general safety measure.

- Shape: Octagonal, red background with white border and white symbol/letters

- **YIELD/GIVE WAY-** In road transport, a yield (Canada, Ireland, and the United States) or give way (many Commonwealth countries) traffic sign indicates that a driver of a vehicle must slow down and prepare to stop if necessary (usually while merging into traffic on another road) but does not need to stop if there is no reason to.

  Used when vision is not obstructed and stop is needed only when necessary

  - Shape: Equilateral triangular pointing downward, with white border and white symbol, red letters

- **<u>Warning or Cautionary Signs (should follow)</u>**

  - These are known as safety signs
  - Not always an offense if not complied with
  - Usually equilateral triangle or diamond in shape with a white background and a thick red border.
  - These signs convey message to warn about potentially hazardous conditions ahead and where some caution/attention is required for.
  - **Examples:**

    - **side road**
    - **junctions**
    - **level crossing**
    - **zigzag/slippery road**
    - **sharp bend**
    - **road hump**
    - **narrow bridge**
    - **School, hospital, cinema hall etc.**

- ***Informatory or Guide Signs*** **(may follow)**

  - **These signs show the direction of important places of interests and are used to guide road users along route to make the travel convenient, safe and comfortable.**

  - **Used at a location where the motorist would be in doubt.**

  - **Informatory signs do not lose their effectiveness by over-use and as such it is desirable to use them as frequent as is necessary.**

  - **Usually rectangular in shape**

  - **Examples**

    - **route direction**
    - **points of interests**
    - **mile stone/distance**

Placement of Signs

- should be located on the left side of the road.
- for roads in open/rural area — not be more than 2m from the near side of the carriageway.
- for roads in built up area — not more than O.5m.
- for multilane highways, overhead sign is necessary.

Height of Signs

Post height is measured from the pavement surface

- open area - 1 .5m
- built-up area — 2.1 m.

Size of Lettering

Should be such that they can be easily read when vehicles are moving.

Sign Support

- Unless properly designed, unshielded traffic signs may invite hazard.

- A tremendous amount of impact force creates when out-of-control vehicles collide/strike with the rigid signposts/supports.
- As such breakaway/collapsible sign support is recommended - to absorb impact energy instead of to react (with this arrangement when a vehicle strike the post, it rotate about the hinged joint and clear the vehicle as it passes).

New Trend

- Increasing use of icons, logos and symbols instead of using letters and words.
- Increasing use of breakable/collapsible/shock absorbing typed sign-posts especially when they are placed near to the carriageway
- Increasing use of Variable Message Signs (VMS)

VMS

- ✓ Conventional signs are very rigid in the sense that they carry fixed and limited information for all road-traffic environments.
- ✓ A variable- (also changeable) message sign, is an electronic traffic sign often used on
- ✓ roadways to give travelers information about special events.
- ✓ Conventional signs are very rigid but VMS displays real time information.
- ✓ They are more responsive to field condition.
- ✓ They need electricity and data communication network.
- ✓ The information is most often displayed in real-time and can be controlled either from a remote centralized location or locally at the site.
- ✓ Traveler information displayed on VMS may be generated as a result of a planned or unplanned event, which is programmed or scheduled by operations personnel.
- ✓ **Examples of traveler information include**: Travel times between known destinations, Congestion conditions along a freeway corridor, Construction notices, Special event notice and motorist instructions, Maintenance operations schedule, Pending severe weather announcement, Incident notification

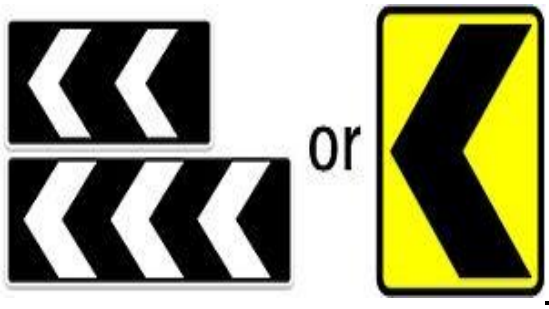
Display Types	LCD, bulb/lamp matrix, LED pixels, flip
Latest VMS	wireless, with solar panels and radio control





Chevron Arrows

- Signs indicating a sharp bend on a road.
- Chevron shaped arrows on rectangular signs may be placed at the actual location of the bend or curve to further mark the location of the curve and to assist in negotiation of the curve.





Bangladesh

- Absence of complete "Highway Manual".
- Faulty designs (inconsistent size, color, wording, incorrect height, placement etc.)
- Absence of required signs at potentially hazardous locations.
- Misuse of signs,
- Obstructed signs
- Poor maintenance
- Existence of misguiding signs
- Lack of supplementary markings
- Presence of a large number of illiterate road users
- Eventually all these factors contributed to drop the respect & effectiveness of traffic signs as controlling device and in consequence, with time a tendency has developed among the road users to ignore the signs.
- As power failure is very common, use of retro-reflective signs/markings would be most appropriate even within the city areas.

Sign Vandalism and Options



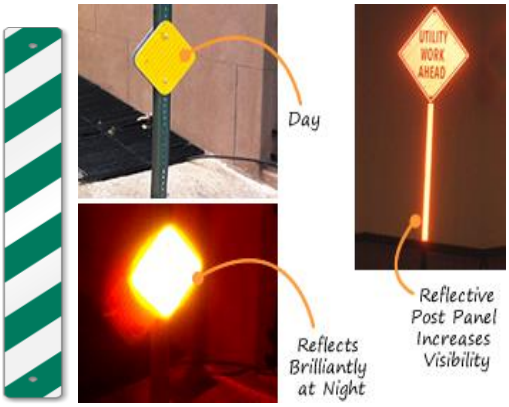
1.Perforated sign support.
2.Effective road marking which is cost-effective

Breakable/Collapsible Sign-posts





Reflective Post Panels



Mandatory Signs





‘না-বাচক’ বাধ্যতামূলক সাইনসমূহ



(NO ENTRY)
সব ধরনের গাড়ি প্রবেশ নিষেধ

(NO MOTOR VEHICLES)
মোটরযান চলাচল/প্রবেশ নিষেধ

(NO TRUCKS)
ট্রাক চলাচল/প্রবেশ নিষেধ

(NO HANDCARTS)
ঠেলাগাড়ি চলাচল নিষেধ



(NO ANIMAL-DRAWN VEHICLES)
পশুচালিত যান চলাচল নিষেধ

(NO PEDESTRIANS)
পথচারী চলাচল নিষেধ

(NO RICKSHAWS)
রিকশা চলাচল নিষেধ

(NO CYCLES)
সাইকেল চলাচল নিষেধ

PREV



(NO TRACTORS OR SLOW-MOVING VEHICLES)
ট্রাক্টর অথবা ধীরগতির মোটরযান চলাচল নিষেধ

(NO VEHICLES CARRYING EXPLOSIVES)
বিস্ফোরকদ্রব্যবাহী মোটরযান চলাচল নিষেধ

10 m
(NO VEHICLES OVER LENGTH SHOWN)
প্রদর্শিত মাপের বেশি দৈর্ঘ্যের মোটরযান চলাচল/প্রবেশ নিষেধ

4.4 m
(NO VEHICLES OVER HEIGHT SHOWN)
প্রদর্শিত মাপের বেশি উচ্চতার মোটরযান চলাচল/প্রবেশ নিষেধ



(NO VEHICLES OVER WIDTH SHOWN)
প্রদর্শিত মাপের বেশি প্রশস্ত মোটরযান চলাচল/প্রবেশ নিষেধ

(NO VEHICLES OVER MAXIMUM GROSS WEIGHT SHOWN)
প্রদর্শিত ওজনের বেশি ভারযুক্ত ওজনের মোটরযান চলাচল নিষেধ (দুর্বল সেতু)

(AXLE WEIGHT LIMIT)
প্রদর্শিত ওজনের বেশি এক্সেল ওজনের মোটরযান চলাচল নিষেধ

(NO PARKING)
পার্কিং নিষেধ



(NO STOPPING)
থামানো নিষেধ

(NO OVERTAKING)
ওভারটেকিং নিষেধ

(NO PASSING WITHOUT STOPPING)
না থেমে অতিক্রম করা/চলা নিষেধ

(NO RIGHT TURN)
ডানদিকে মোড়/টার্ন নেওয়া নিষেধ



(NO LEFT TURN)
বামদিকে মোড়/টার্ন নেওয়া নিষেধ

(NO U TURN)
ইউটার্ন নেওয়া নিষেধ

(NO USE OF HORN)
হর্ন বাজানো নিষেধ

(SPECIAL SPEED LIMIT)
বিশেষ গতিসীমা বা সর্বোচ্চ গতিসীমা



(NATIONAL SPEED LIMITS APPLY)
পূর্বের সর্বোচ্চ গতিসীমার বাধ নিষেধ শেষ এবং জাতীয় গতিসীমা শুরু

(RESTRICTION ENDS)
গতিসীমা ব্যতীত অন্যান্য বাধানিষেধ শেষ

(TEMPORARY STOP SIGN)
সাময়িক থামার চিহ্ন

(TEMPORARY GO SIGN)
সাময়িক চলাচলের চিহ্ন

বিশেষ বাধ্যতামূলক সাইন

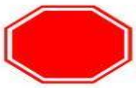
রাস্তা দিন বা আগে যেতে দিন (GIVE WAY)

রাস্তা দিন সাইন দেখতে ত্রিভুজাকৃতির হয় এবং এর মাথা নিচের দিকে থাকে। এই সাইন দেখলে অবশ্যই গাড়ির গতি কমিয়ে জাংশনের দিকে অগ্রসর হতে হবে এবং প্রধান সড়কের গাড়ির গতিবিধি পর্যবেক্ষণ করে সুযোগমতো খুব সতর্কতার সাথে জাংশন অতিক্রম করতে হবে। এই ধরনের সাইন জাংশন ও গোলচক্করে ব্যবহৃত হয়।



থামুন ও রাস্তা দিন (STOP AND GIVE WAY) সাইন

থামুন ও রাস্তা দিন সাইন অষ্টাভুজাকৃতির লাল রঙের হয়। এই সাইন থাকলে চালককে অবশ্যই প্রথমে গাড়ি থামাতে হবে এবং নিরাপদ অগ্রসর হওয়ার মত অবস্থা সৃষ্টি হলে তারপর অগ্রসর হতে হবে। যে সব রোড জাংশন সহজে দৃষ্টিগোচর হয় না বা যে-সব রোড জাংশনে থামা ব্যতীত প্রবেশ নিরাপদ নয়, সেখানে এই ধরনের সাইন ব্যবহৃত হয়। পাহারাদারবিহীন রেলক্রসিংয়েও এই ধরনের সাইন ব্যবহৃত হয়।



Warning Sign



Information Signs



Route Signs



Advance direction sign (National Highways)

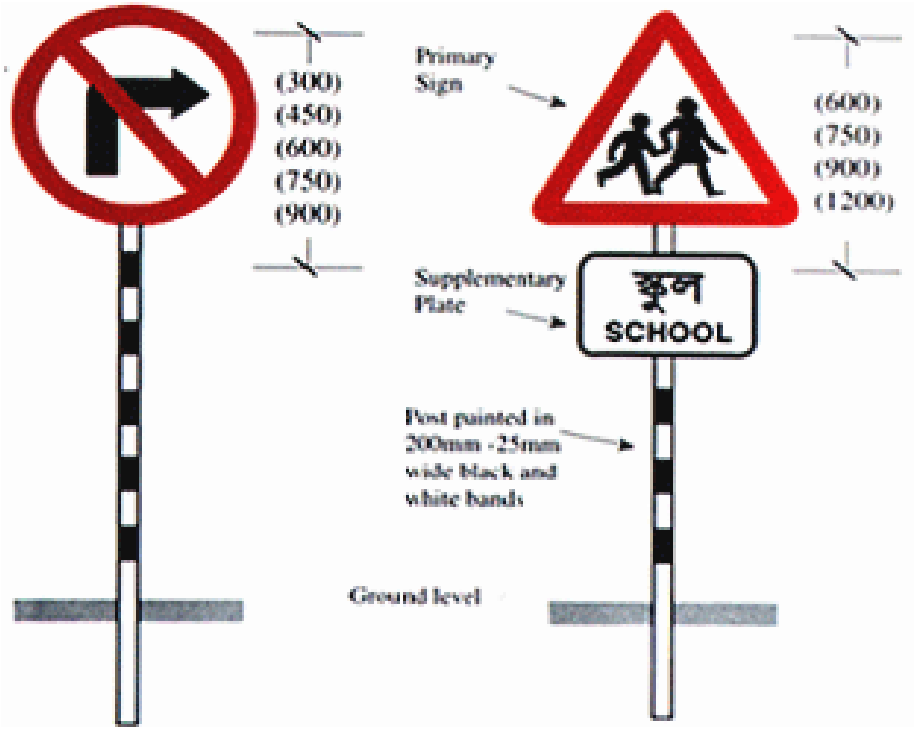


Advance direction sign-alternative style

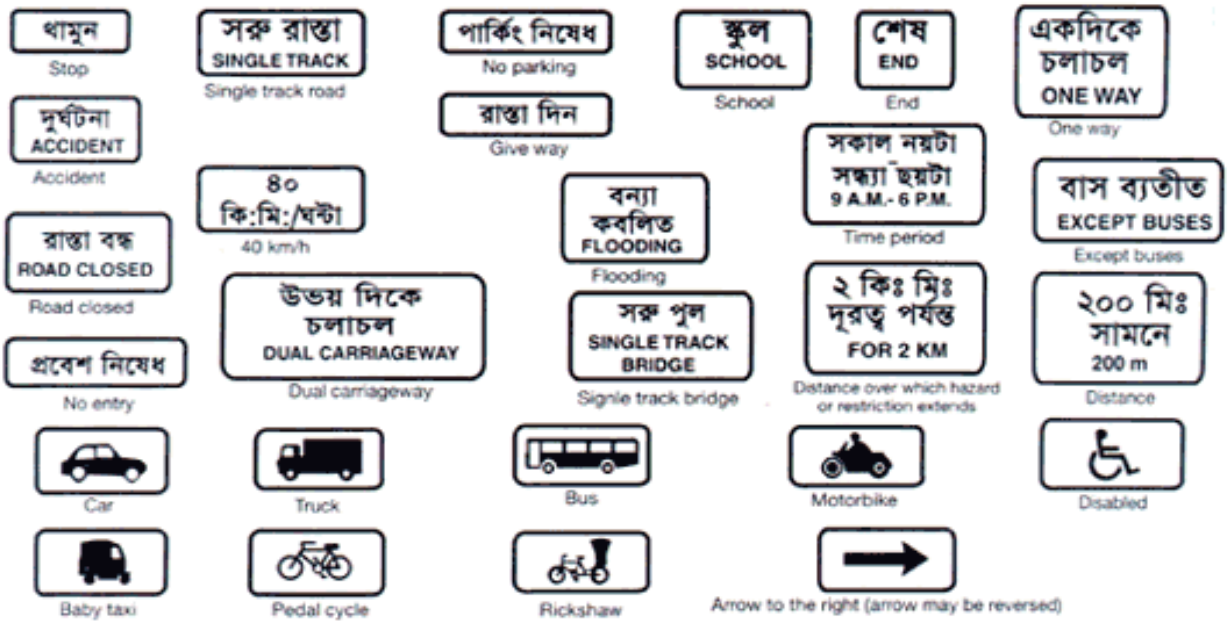


Advance direction sign (mounted overhead)

Sign Dimensions



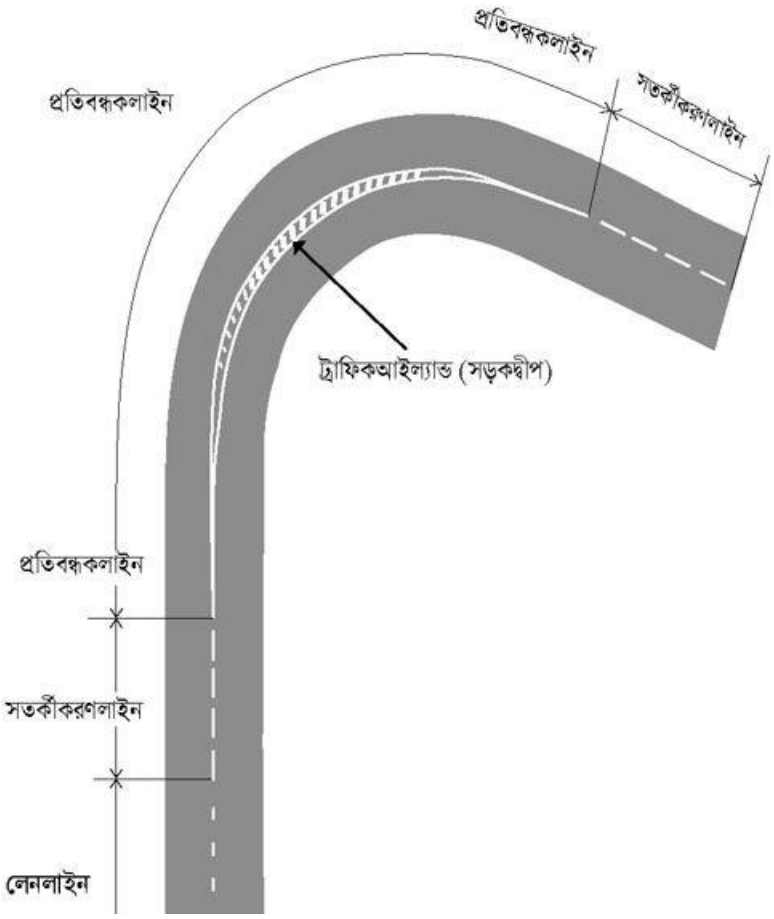
Supplementary Plates



একই অর্থবোধক ট্রাফিক সাইন ও রোড মার্কিংসমূহ

	থামুন	রাস্তাদিন	ওভারটেকিং নিষেধ	পার্কিং নিষেধ	থামানো নিষেধ
‡ivWgvwK©s UªvwdK mvBb					
	অথবা	অথবা			

	সর্বোচ্চ গতিসীমা	রাস্তাদিন	পথচারী পারাপার	বাম অথবা ডানপাশ দিয়ে চলুন
ট্রাফিক সাইন	40			
রোডমার্কিং	40			


প্রতিবন্ধকলাইন
প্রতিবন্ধকলাইন
সতর্কীকরণলাইন
ট্রাফিকআইল্যান্ড (সড়কদ্বীপ)
প্রতিবন্ধকলাইন
সতর্কীকরণলাইন
লেনলাইন


প্রধান সাইন
সম্পূরক সাইন
বাস ব্যতীত
EXCEPT BUSES


প্রধান সাইন
সম্পূরক সাইন