T-M

TRANSPORTATION-MARKINGS DATABASE: TRAFFIC CONTROL DEVICES

2nd Edition

Brian Clearman

Mount Angel Abbey

2008

TRANSPORTATION-MARKINGS DATABASE: TRAFFIC CONTROL DEVICES

TRANSPORTATION-MARKINGS DATABASE: TRAFFIC CONTROL DEVICESMARINE

Part Iii, Second Edition

Volume III, Additional Studies

Transportation-Markings: A Study in Communication Monograph Series

Brian Clearman

Mount Angel Abbey

2008

Dedicated to my Grandparents:

Catherine Abbie Brady Sauers, 1878-1919
Frederick William Sauers, 1869-1944

Annie Donaldson Clearman, 1879-1966
Frederick William Des Coudres Clearman, 1871-1968

Library of Congress Cataloguing in Publication Data [lst ed]
Clearman, Brian
Database of transportation-marking phenomena : additional studies
/Brian Clearman.
p. cm. -- (Transportation-markings: v. 3 = pt. 1)
"Monograph series."
Includes indexes.
Contents: i. Marine -- ii. TCD -- iii. Rail -- iv. Aero
1. Transportation-markings--Databases. I. Title. II. Series:
Clearman, Brian.
Transportation-Markings : v. 3.
TA 1245. C56 1984 vol. 3.
629.04'5 a
[629.04'5]--DC21

97-25496
CIP

TABLE OF CONTENTS

PREFACE

The *T-M Database* (i, ii, iii, iv, v) of this Series draws together the several dimensions of T-M. It shares this drawing together function with the *T-M General Classification* (Part H). Perhaps paradoxically the two works draw together by focussing on the individual entity. Both studies illustrate the connections between T-M phenomenon as well as providing a focus on the individual unit. Yet in that process the full panopoly of T-M is unfolded including their shared and connected state.

There are thousands of T-M forms. In addition there are many variant forms, alternative names, untold permutations. The sheer number of forms may obscure the common thread of T-M that interweaves the multifoliated multiplicity. Yet ultimately the multiplicity leads to the basic unity of Safety Aids of whatever kind. The variety and diversity point to a restricted system of messages serving one essential purpose: the promotion of safety. The perennial conundrum of the one and the many is found here in T-M. And the one and the many interact and explain each other.

The T-M Database examines the four modes of rail, road, aero, and marine T-M safety aids in separate studies though all remain components of Part I. The amount of labor required to prepare the Database precludes assembling all four modes of T-M in a single study (though eventually they may be united). A fifth element has been added that brings together the classifications of the four earlier studies.

There has been some confusion over the meaning of Transportation-Markings. Some users have interpreted the term as constituting a synonym for Pavement Markings. This is **Not** the case. **T-M** is a general, overarching term for all types of T-M forms. This perspective is reflected by the Library of Congress which employs T-M as a general heading in its Subject Headings. The Library of Congress includes various specific kinds of T-M forms under that general heading, including that of Pavement Markings. In order to reduce any confusion a hyphen has been added that conjoins Transportation and Markings: Transportation-Markings instead of Transportation Markings. Further information

on the use of the hypen for T-M is included in the first edition Preface.

Classification has been a vital part of T-M from the beginning. It had been hoped to make heavy use of taxonomy in the Database Studies. But the use of the classification in the Database has proven to be problematical. Various T-M forms and classification numbers are not always reflected in the Database. And, conversely, terms of significance in the Database are not always reflected in the classification. As a result the classification did not have a direct role in the first edition of this Study. However, it has a greater role in this edition: Key terms among Sign, Marking and Signal forms have incorporated the classification designations from the classification. These key terms incorporate many other terms. Further information on the classification situation is included in the first edition.

The TCD Database has these basic subdivisions: Regulatory, Warning, Informative Signs, Traffic Signals, Traffic Markings, and two Appendices. The first presents a comparative review of Signs in various systems while the second discusses general TCD terms. The first Appendix is adapted from Part E, *International Traffic Control Devices.*

Acknowledgements for the first edition apply here as well.

CHAPTER ONE

INFORMATIVE SIGNS

Destination Sign
Destination & Distance Signs
Diagrammatic Sign
Direction Indicator
Direction Sign
Directive Sign
Distance/Confirmation-Distance Sign
Exit Direction Sign
Exit Number Panel
Expressway Directional Sign
Expressway Interchange Sign
Fingerboard Sign
Fingerpost/Direction Post/Guide Posts/Signpost
Gore Sign
Interchange Sequence Signs
Mileage Sign
Next Exit Supplemental Sign
Next (X) Area Sign/Next X Exit Sign
Place Sign/Place Name Sign/Place Identification Sign
Pull Thru Signs
Street Name Sign/Street Name Plates
Supplemental Advance Guide Sign

Route Markers (1B3)

a) Introductory Note & Overarching Terms
   - Route Marker/Route Sign
   - Road Identification Sign
   - Route-Indicators

b) Specialized Route Marker Terms
   - Auxiliary Markers/Auxiliary Signs
   - Bicycle Route Markers
   - Combination Junction Signs
   - Confirming Route Assembly/Reassurance Assembly
   - Reassurance Route Marker
   - County Route Marker/County Route Sign
   - Forest Route Marker

Interamerican Highway Route Marker
Interstate Route Marker/Interstate Route Sign
Off-Interstate Business Loop Marker/Off-Interstate Business Spur
Pan American Road Route Marker
Provincial Route Marker
Road Marker
State Route Marker/State Route Sign
Trailblazers
Trans-Canada Route Marker
Trunk Route Marker
US Route Marker

c) Route Marker Tabs
General Note
Advance Turn Arrow Tabs/Advance Turn Arrow Auxiliary Sign/Advance Turn Arrow Markers/
By-Pass Tab/By-Pass Marker/By-Pass Auxiliary Sign
Cardinal Direction Tabs Signs/Cardinal Direction Auxiliary Signs/ Cardinal Auxiliary Marker
Directional Arrows Tab/Directional Arrows Marker/Directional Arrow Auxiliary Sign
End Marker/End Auxiliary Sign/End of Route Tab
Junction Tab Sign
Markers for Alternate Routes/Alternate Auxiliary Signs/Auxiliary Signs for Alternative Routes
Temporary Marker Tab/Temporary Auxiliary Sign
Alternate Marker/Alternate Auxiliary Sign
Bypass Marker
Relief Marker
Business Marker/Business Auxiliary Sign
Detour Marker/Detour Auxiliary Marker Sign
Detour Sign
Truck Route Marker/Truck Auxiliary Sign

Tab Signs

Mileposts (1B4)
General Note

Direction Stones
Kilometre Stones
Landmarks/Guide Sign
Mark/Marker
Mark Stones
Mile Marker
Mileposts/Mile Posts (I)
Mileposts (II)
Milestones
Reference Location Sign/Intermediate Reference Location Sign
Road Marker
Stone Marker

Signs Giving General Information (SGGI) (1B5)

General Note

a) Overarching Terms

Direction, Position, Or Indication Signs
Information, Facilities or Service Signs
General Information & Auxiliary Signs
General Information Signs
General Motorist Services Signs/Service Signs
General Service Signs
Indicative Signs
Indication Signs/Signs Giving Indications Only
Other Signs Providing Useful Information for Drivers of Vehicles/
Signs Giving Notice of Facilities Which May Be Useful to
Road Users
Signs Giving General Information
Off-Road Facilities Signs
Recreation & Accomodations
Essential Services
Food & Fuel
Recreational & Cultural Interest Area Signs
General Services
Motorist Services
Accomodations Services

Land
Water
Winter

Routing to Specific Destinations
Miscellaneous Information Signs
Service Signs/Specific Service Signs

b) Services

Accomodations Sign/Hotel Sign/Motel Sign/Lodging Sign
Airport Sign
Ambulance Station Sign
Breakdown Service Sign/Mechanical Help Sign/Mechanical Services Sign/Service Station Sign
Carpool Information Sign
Channel 9 Monitored Sign
Emergency Dial XXX Sign
Emergency Medical Sign
Emergency Medical Services Sign
Ferry Boat Sign
First Aid Sign/First-Aid Sign/First Aid Station
Filling Station Sign/FuelSign/GasSign/Gas Station Sign /Full (Diesel) Sign
Food Sign/Restaurant Sign/Refreshment or Cafeteria Sign
Hospital Sign
International Symbol of Accessibility for the Handicapped Sign
Litter Container Sign
Next Services ... Miles Sign
Pharmacy Sign
Phone Sign/Telephone Sign
Recreational Vehicle Sanitary Station Sign
Travel Info Call 511 Sign

c) Parking

Authorized Parking Place Sign/Authorized Parking-PlaceSign
Parking Sign
Parking Area Sign
Parking Allowed Sign

Parking Without Lights Sign
Park & Ride Sign/Park & Ride Next Right Sign

d) Recreation Signs
Boat Launch Ramp Sign
Camping Sign
Camping or Caravan Site Sign
Caravan Sign
Information Center Site Sign
Picnic Site Sign/Picnic Table Sign/Picnic Tables ... Miles Signs/Picnic Area Km (X Mile) Sign
Rest Area Sign
Roadside Parking Area ... Miles Sign/Roadside Rest ... Feet Sign
Roadside Table X KM (X Mile) Sign/Roadside Park X Km (X Mile)
Scenic Area Sign
Scenic Overlook Sign
Tent Camp Sign
Trailer Camp Sign/Trailer Camping Sign
Travel Information Sign
Trolley Park Sign
Viewpoint Sign
Youth Hostel Sign
Other Recreational & Cultural Interest Area Signs [Category]

e) Other Signs
Access for Handicapped Sign
Advance Signs-Exit Motorway
Advised Itinerary for Heavy Vehicles Sign
Advisory Speed Sign
Beginning of Built-Up Area Sign/End of Built-Up Area Signs
Bicycle Route Sign
Bus Stop Sign
Bus Stop Sign/Tramway Stop Sign
County Sign
Crossover Sign/Advanced Crossover Sign
Cul-De-Sac Sign
Escape Lane Sign

General Speed Limits Sign
Information Signs (II)
Information Symbol Sign
National Scenic Byway Sign
No Through Road Sign
Motorway Sign/End of Motorway Sign
Parking Area Sign
Pedestrian Activated Signal Sign
Pedestrian Overpass Sign/Pedestrian Underpass Sign
Police Sign
Protected Pedestrian Walk Sign
Radio Information Signing
Radio-Traffic Information Sign/Radio-Weather Information Sign
Recreation Area Sign
Rest & Information Area Sign
Rest Area Sign
Recycling Collection Center Sign
River & Lake Sign
Road For Motor Vehicles Sign/End of Road For Motor Vehicle Sign
Sanitary Facility Sign
Signs Indicating Number & Direction of Traffic Lanes Sign
Signs Indicating Closure of a Traffic Lanes
Signs Notifying An Exit From a Motorway
Tourist Information Center Signs/Welcome Center Signs
Tourist-Orientated Directional Signs (TODS)
Traffic Signal Speed Sign
Trail Signs
Turn Marker
Weigh Station Signing
    Advance Symbol Signs
    All Trucks Commercial Vehicles Next Right Signs
    Exit Direction Sign
    Gore Signs
Other Signs:
  CASATC

Second Stage
Tram Stop No.__
US MUTCD 1971
Do Not Throw Litter
Emergency & Authorized Vehicle Only
Keep Off Wet Paint
No Dumping Allowed
No Fishing From Bridge

1A2 Alphabetical Index

1B Informative Signs

1B1 Introduction, Overarching Terms & Message Configurations

General Note I. Terminology for this range of Signs is complex. A variety of terms have been employed even to relatively recent times. UN 1949 employed Informative Signs and UN 1968 provided a truncated version with Parking Signs removed from Informative Signs. IAMM and US MUTCD have opted for Guide Signs. Informative Signs may be the most acceptable overall term though it is not universally employed. The contents of the category are very diverse. One might suggest that any Sign not in Warning Signs and Regulatory Signs is an Informative Sign.

General Note II. The General Classification (Part H), has eight subdivisions based on UN 1968. However, five of the groups can be reconfigured under a single heading of Destination and Distance Signs (US 1961 and IAMM 1967 headings) or under Guide Signs (Canada 1976) for this study. UN GERSS 1952 has these Signs under two headings but they too can be gathered together under one heading. A second major subdivision for this study is that of Route Markers. This is a major grouping for a variety of systems including those previously mentioned as well as ECAFE 1964. UN 1968 instead deploys Road Identification Signs which corresponds to Route Marker). The final UN 1968 topics are merged into Signs Giving General Information (SGGI).

The Overarching and Sub-Overarching terms are designated by OA (Overarching), and SOA (Sub-Overarching). Those terms which are actual Sign entities are designated E for Entries. A term may have two or even all three designators.

a) Overarching & Sub-Overarching Terms

ADVANCE DIRECTION & DIRECTION SIGNS [SOA/E]. This is a combined heading for UN 1949. The two sign types are separate for UN 1968, UN GERSS 1952, and ECAFE 1964. They correspond to Destination and Direction Signs of the Western Hemisphere. Both set of terms can be regarded as a subcategory; they

can also be viewed as separate entities.
References: UN 1968, UN GERSS 1952, ECAFE 1964

DESTINATION & DISTANCE SIGNS [SOA]. This is a basic category for the Database. It originates with IAMM 1967 and US 1961. Advance Direction & Direction Signs are comparable terms. The Signs give place destination as well as distance information to a given place.
Reference: IAMM 1967, US 1961

DIRECTIVE SIGNS [SOA]. This term from Tripp is a basic category within Information Signs for UK. Tripp augments the somewhat limited information of OBS through UK MOT 1950 for these Signs.
Reference: Trip 1950

GUIDE SIGNS [OA/SOA]. US MUTCD and IAMM 1967 employ this term as a general term for the category otherwise known as Informative Signs. Canada uses the term for what are otherwise known as Distance and Destination Signs within the Informative Signs category.
Reference: IAMM 1967, US MUTCD 1961

GUIDE & INFORMATION SIGNS. Manitoba employs a variant term that seemingly combines the terms in use in the US and in Canada.
Reference: Manitoba 2007

INDICATION SIGNS [OA/SOA]. For UN 1949 this term is one of two subdivisions of Informative Signs. It includes Parking Hospital, First-Aid, Mechanical Help, Filling Station and Priority Road Signs. LN 1939 employs the same term for the entire category of Informative Signs. LN 1931 has an alternative title of Signs Giving Indications Only. It can be noted that categories for older systems had fewer Signs than newer systems.
References: UN 1949, LN 1939, LN 1931

INFORMATION SIGNS (I). [OA/SOA/E]. This term is broad in meaning and occurs in various contexts. The Spanish language version of IAMM 1981 employs Information (Senales de Informacion) in place of Guide Signs as a general term.

US MUTCD 1961 includes a restricted term of Information Signs which was changed to General Information Signs in US MUTCD 1971. These Signs are of a miscellaneous character. See also: Information Signs (II), page 61.
Reference: IAMM 1981, US MUTCD 1961, 1971

INFORMATION & DIRECTION SIGNS. The Province of Ontario includes this variant term in place of Information Signs which is employed in Canada.
Reference: Ontario 2003

INFORMATIONAL SIGNS. Eliot 1960 and Sessions 1961 include this term. This is a possibly historic term that includes a variety of Traffic Sign forms.
References: Eliot 1960, Sessions 1961

INFORMATIVE SIGNS [OA].
Classification #: 433
Form of Aid: Unlighted TCD Aid
Operation: Messages are displayed visually on Signboards. Alphanumeric and graphic symbols are displayed according to established patterns.
Comments: A term apparently introduced by UN 1949. It is the primary term for this category which includes Direction & Destination, Route Markers, Mile Posts, and Signs Giving General Information.
Reference: UN 1949

PLACE & ROUTE IDENTIFICATION SIGNS [Part-SOA]. This Sign subdivision is found in UN 1949 and CASATC 1950. It includes two forms of Signs. Both forms are found within the subcategory of Destination and Direction Signs.
Reference: UN 1949, CASATC 1950

ROAD IDENTIFICATION SIGNS [Possible SOA]. UN 1968 includes this designation which can be regarded as a single Sign though it is the equivalent of Route Markers, a multi-faceted entity. The sign is listed in Article 5 of the UN publication though not in the detailed Annexes.
Reference: UN 1968

ROUTE MARKERS/ROUTE MARKER SIGN/ROUTE SIGNS [SOA/E].
Classification #: 4331
Form of Aid: Unlighted TCD Aids
Operation: Messages are conveyed through agreed upon alphanumeric and graphic symbols. Signboards are of conventional shapes and sizes but they also include special shield and variant forms and also very small Signs or Tabs.
Comments: US MUTCD changed Route Markers to Route Signs though Route Markers are retained in this study. UN 1968 employs an apparently similar term, Road Identification Signs. Canada 1976 adds Signs to Route Markers. A segment, 1B3, of this study takes up general considerations of Route Markers,
References: Canada 1976, US MUTCD 1988, 2000

SIGNS GIVING INDICATIONS ONLY [OA]. This is the term of choice for LN 1931 for the general category of Informative Signs. See also Indication Signs.
Reference: LN 1931

SIGNS GIVING GENERAL INFORMATION (SGGI) [SOA]. This term from UN GERSS 1952 encompasses a spectrum of Signs giving various kinds of information. The term is a Sub-Overarching term for this Sign category. Other Systems have a variety of fragmented terms that together cover what this one term includes. UN 1968 has Other Signs Providing Useful Information for Drivers of Vehicles and Signs Giving Notice of Facilities Which May Be Useful to Road Users. CASATC 1950 has Signs of General Interest. Indicative Signs includes similar information in UN 1949.

IAMM 1967 includes General Information & Auxiliary Signs. Canada 1976 includes Off-Road Facilities Signs (Recreation and Accomodation Signs, Essential Services Signs, Food and Fuel Signs). Canada also has Miscellaneous Information Signs. US MUTCD 1961 includes an Information Signs category encompassing Rest and Information Area Signs, Service Signs, Parking Area Signs, Other Directional Signs, Mileposts, and a confusingly named Information Signs group (The last named was changed to General Information Signs in US 1971).
Reference: UN 1968, CASATC 1950, UN 1949

b) Message Configurations

Message patterns have a threefold pattern in this category: 1) Destination & Distance (hereafter D & D), 2) Route Markers, and 3) Signs Giving General Interest. Messages are grouped by systems within those patterns.

IAMM'S D & D Signs have a white ground with black graphics and word symbols. High density traffic forms require a green ground with white graphic and word symbols.

UN 1968 has two configurations for D & D: either white or "light-coloured" symbols on dark ground or the reverse pattern; both are rectangular-shaped. UN 1949 follows a similar pattern with the added remark that Distance Signs end in an arrowhead.

ECAFE 1964 and UN GERSS 1952 Sign forms are virtually identical in most instances. However, there is a nuanced difference in D & D Signs. ECAFE calls for rectangular Signs with white ground and black letters (and presumably numbers as well). UN GERSS 1952 allows for either light ground and dark letters or the reverse pattern. The pattern chosen by ECAFE is the recommended one for GERSS.

Canada 1976 follows a pattern of white words, arrows, numbers on green ground. D & D Signs are rectangular though Fingerboard Signs end in an arrowhead. US MUTCD 1961 offers two patterns: black symbols on white ground or white symbols on either green or black ground. Newer editions permit white on green only. Limited variation is permitted with Color-coded Destination Signs, MUTCD 2003.

LN 1926 lacks D & D Signs. LN 1928 includes an Obligatory Direction Sign which displays a disc with blue ground and white arrow. LN 1931 specifies rectangular-shaped Signs which may end in arrowheads. Specific Sign color patterns are optional. However, red is not to be a major color for D & D. LN 1939 included two patterns: Blue ground with white lettering, or white ground or light yellow ground with black letters. Direction Signs can end in an arrowhead pattern.

While the information for CASATC 1950 is not complete it would appear that a pattern of white symbols on black ground was employed. Black symbols on white ground with black borders were in use for OBS by 1950.

IAMM 1967 employs rectangular-shaped Signs for Guide (Informative Signs) though a "special shape" can be adopted for Route Markers; this shape is often that of a shield. These Markers apparently have a white ground and black symbols.

UN 1968 allows rectangles or shields for Route Markers. Symbols are white or "light-coloured" on dark ground or the reverse. The UN 1949 pattern for Route Markers is similar.

ECAFE 1964 and UN GERSS 1952 have rectangular-shaped Route Markers with black symbols on white ground.

Canada 1976 provides a complex message situation. Trans-Canada Route Marker displays a white maple leaf with green lettering on a ground that is white and green. Provincial Route Markers can have a variety of color configurations. Tabs have black graphic symbols and rim on white ground. One form of the Junction Tab has a green ground with white letters, words, rim.

US Route Marker/Route Signs employs either a cut-out shield (the Sign plate is cut in the form of a shield rather than display a painted or embossed image on a standard plate. The cut-out shield dropped out of MUTCD 1971) or a shield graphic symbol on plate. Symbols have black numbers on white ground; the second form adds black ground. Interstate Route Markers have a cut-out shield with numbers in white on blue ground and word "Interstate" in white on red ground and white border in MUTCD 1971 and newer editions.

US State Markers are especially complex because of 50 models (US MUTCD 1948). Nearly all of these Markers are square in shape with black symbols, rims, borders and white ground. Frequently there is a white inset within a black ground. US MUTCD 1971 has a recommended form which consists of black letters, white

circle and black ground; seven states have adopted that form according to USDOT FHA 1979. State graphic designs include various shield shapes, state shapes, diamonds with one cut-out version, and one rectangular-shaped plate.

US MUTCD 1971 and later additions list other Route Marker forms including Business Loop and Spur (white on green), County (yellow on blue), Forest (white on brown). County and Forest types do not follow the shield forms (letters, numbers on plates without other design features). A national counties organization has a recommended County Marker design that some counties have adopted. Off-Interstate Business Route Sign displays white symbols on green ground.

CASATC 1950 has a rectangular-shaped Route Marker with emphasis on the vertical dimension. Arrows, letters, numbers are white on black ground.

IAMM 1967 employs rectangles with a vertical emphasis for General Information and Auxiliary Signs (Signs Giving General Interest). They have a blue ground with white insert. Black graphic symbols are applied to the white insert. White arrows, numbers, letters on the blue ground accompany the primary symbols.

Canada 1976 uses square plates for Off Road Signs (within the SGGI category). They have a brown ground and white symbols. Hospital and Airport Signs, in a different subdivision, are square with green ground and white symbols.

Other miscellaneous Signs from Canada include rectangular Sign plates with black symbols on white ground (County, First Aid), and white symbols on green (River & Lake). The Pedestrian Activated Signal Sign has black symbols on white ground but the Sign plate has a vertical emphasis. Canada 1985 replaces the older word version with one that has graphic symbols.

UN 1949 SGGI Signs are very similar to IAMM 1967 forms. UN 1968 Signs are in two forms: Other Signs Providing Useful Information for Drivers of Vehicles which have a blue ground and white symbols. Some of these forms ae rectangular -shaped while others are square. Signs Giving Notice of Facilities May Be Useful to Road Users have a green or blue ground with white or yellow insert with black symbols (with some exceptions).

UN GERSS 1952 and ECAFE 1964 display black symbols on white ground for Informative Signs. UN GERSS permits, but does not recommend, a reverse pattern. ECAFE specifies rectangular-shaped signs.

US MUTCD 1971 changed many black symbols and borders on white ground to white symbols and borders on green ground. Newer editions display white on blue for Tourist-Orientated Directional Signs. Recreational and Cultural Interest Area Signs display white symbols and borders on brown ground.

LN 1939 has few Signs in this group. They include Parking Signs displaying a blue ground with a white letter "P." The First-Aid Signs had a dark ground, white rim, white insert, dark symbols. LN 1931 Signs were of the same pattern.

OBS 1950 employs black letters, red and yellow ground for the No Waiting Sign. Waiting Limited Signs display a blue ground, white letters and red rim. CASATC 1950 contains little information about this category of Signs.

1B2 Destination & Distance Signs

ADVANCE DIRECTION SIGNS. This Sign provides place information and directional arrows but without mileage indications. This Sign overlaps with Direction Signs which see. It is found in LN and UN systems.
Reference: UN 1968

ADVANCE/ADVANCE GUIDE/ONE-MILE/TWO-MILE SIGN. This Sign indicates upcoming interchanges. US MUTCD 1961 includes the One-Mile Sign and the Two-Mile Sign as types of Advance Guide Signs. US MUTCD 1971 has a single Advance Guide Sign within which are various forms from quarter-mile to two miles. US MUTCD 1961 did not include the word "guide" in the name though these Signs are part of Advance Guide Signs.
References: US MUTCD 1961, 1971

APPROACH DIRECTION SIGNS. Only one source lists this Sign. This Sign appears to be similar to Advance Direction Signs. It is positioned before junctions

and includes route numbers and the name of the next place on the route.
Reference: Noble 1946

CITY NAME SIGNS. This term is an alternative to the Place Name Sign of UN 1968. It is seemingly within D & D.
Reference: IAMM 1967

COLOR-CODED DESTINATION SIGNS. These Signs included color-coded messages within a standard Sign in order to reduce confusion in a complex information situation.
References: US MUTCD 2003

COMMUNITY INTERCHANGE SIGN. This Sign was split off Interchange Sequence Sign in US MUTCD 1978. It is employed where several exits are required. Exits and distance to them are listed.
Reference: US MUTCD 1978.

CONFIRMATORY SIGN. This Sign is similar to the Confirmatory-Distance Sign of Canada 1976, or the Distance Sign of US 1961. The source of the Sign, UN 1968, offers little information on the Sign. The meaning confirms previously given information on place, route and distance.
Reference: UN 1968, Canada 1976, US 1961

DESCRIPTIVE SIGN. CASATC places this Sign within the Place and Route Identification Signs. It is a form of Place Name Sign though it may also fit the Signs Giving General Information group.
Reference: CASATC 1950

DIRECTIVE SIGN. This term is seemingly found only in Tripp who speaks of Directive Signs within the Informative Sign category. Tripp is a supplement to the OBS whose information is less complete.
Reference: Tripp 1950

DISTANCE SIGN/CONFIRMATION-DISTANCE SIGN. Term from US (1) and Canada (2). These Signs bear resemblance to both Advance Direction and

Direction Signs of UN 1968. The Canadian version includes no more than two towns while the US can include three.
References: Canada 1976, US 1961

DESTINATION SIGN. Canada 1976 provides several versions of this Sign which lists one to three place names with arrows but without distances. US has a similar Sign to that of Canada as well as a version with arrow and mileage data.
References: Canada 1976, US MUTCD 1961

DESTINATION & DISTANCE SIGNS.
General Note. This term is the Sub-Overarching heading for this group of Signs within Informative Signs. The Signs given directions and distances to one or more locations with directions indicated by arrows. IAMM 1967 has a category under this name though the Signs are not clearly tied to D & D Signs. US MUTCD 1961 has a category under the same name and individual Signs are clearly listed. Mexico includes a variant form in which a Route Marker is added to the Place name, arrow and distance Sign.

Classification #: 4330
Form of Aid: Unlighted TCD Aid
Operation: Visual messages displayed through Signboards according to established patterns of color and alphanumeric and graphic symbols.
Comments: Term amalgamates two basic forms and incorporates a wide range of subdivisions from UN 1968.
References: US MUTCD 1961, IAMM 1967, RDM (IAMM) 1981

DIAGRAMMATIC SIGN. Term for a Guide Sign used for US expressways and freeways. It presents a graphic image of exit patterns. It provides information traditionally supplied by several forms of alphanumeric Signs. US MUTCD 1971 and newer editions include it. IAMM 1981 includes a similar Sign for Mexico.
Reference: US MUTCD 1971, IAMM 1981

DIRECTION INDICATOR. This seems to be an informal synonym from Noble for the Direction Sign.
Reference: Noble 1946

DIRECTION SIGN. This Sign, ending with an arrowhead, gives place name(s) and distance. It is distinct from Advance Direction Signs. It is found in UN, CASATC and ECAFE systems. The UN 1949 version of this Sign is clear and unambiguous. However, UN 1968 gives a less clear picture of it since some Direction Signs appear similar to the Advance Direction Sign. The Canadian Fingerboard Sign is very similar to the UN 1949 type which see. CASATC includes the Sign partly within Advance Direction & Direction Signs and partly within Place & Route ID Signs. One version has arrows, one has an arrowhead.
Reference: UN 1949, CASATAC 1950, ECAFE 1964, Canada 1976

EXIT DIRECTION SIGN. A Sign placed before, or at, the gore. It displays route number/name, direction, destination, directional arrow symbols, information.
Reference: US MUTCD 1961

EXIT NUMBER PANEL. The term "Panel" may be similar in meaning to Tab. This Aid accompanies US freeway and expressway signs and gives exit numbers at interchanges. Panels may suggest a large unit yet it can apparently have the size and possibly the function of a Tab. Panels can also have substantial size.
Reference: US MUTCD 1971

EXPRESSWAY DIRECTIONAL SIGN. This term seems to include Expressway Interchange Signs though it offers a more encompassing term for the larger category of Expressway Signage. The Sign combines Route Marker and Destination Signs.
Reference: US MUTCD 1961

EXPRESSWAY INTERCHANGE SIGNS. Term for a type of sub-overarching Sign encompassing Gore, Exit Direction, Advance, Next Exit Signs. It is from US 1961 and later editions of MUTCD. It may also be a specific Sign type.
Reference: US MUTCD 1961

FINGERBOARD SIGNS. This term seems to describe the physical dimension rather than the Sign in its message role. However, the Fingerboard Sign is the formal name for the Sign in Canada 1976, and includes message, meaning and

physical dimensions. The Fingerboard is akin to UN 1949 Direction Signs and some UN 1968 Direction Signs. It is a rectangular-shaped board with an arrow-head end. It gives the name and distance of a single locale.
Reference: Canada 1976

FINGERPOSTS/DIRECTION POSTS/GUIDE POSTS/SIGNPOSTS. Noble 1946 offers several historic terms that can be regarded as Direction signs. Despite differences in names they are grouped together. Noble views Signposts and Fingerposts as synonyms. Direction Posts is more accurate for the function of offering directions; Guide Posts is yet another synonym. These Signs may be older than Milestones though not common until the turnpike era in the 18th century.
References: Noble 1946

GORE SIGN. Gore has the meaning of a triangular piece of land. Gore Signs are located in the gore formed by diverging roadways. They indicate the diverging roads and are the final Signs to mark those roadways. There are four forms though not all forms have specific names. Messages include exit, destination, route numbers, directions, through lanes.
Reference: US MUTCD 1971

INTERCHANGE SEQUENCE SIGNS. These Signs identify two and three inter-changes in areas where interchanges are close together. The messages take the form of name or route numbers.
Reference: US MUTCD 1971

MILEAGE SIGN. US MUTCD 1971 changed the name of the Distance Sign to Mileage Sign. However, the US MUTCD 1978 reverted back to Distance Sign.
Reference: US MUTCD 1978

NEXT (X) AREA SIGN/NEXT X EXIT SIGN. These are advance Signs for Advance Guide Signs for historic, recreational and urban situations.
References: US MUTCD 1978, 2003

NEXT EXIT SUPPLEMENTAL SIGN. This Sign is employed where a series of

Exits are widely spaced; the mileage is added to the basic Sign. The word Sign appears in US MUTCD 1961. US MUTCD 1971 added the word Supplemental.
Reference: US MUTCD 1961, 1971

PLACE SIGN/PLACE NAME SIGN/PLACE IDENTIFICATION SIGN. These Signs refer to boundaries or limits of a town or city. UN 1949 and some LN systems include the first named Sign. Place Identification Sign of UN 1968 refers to built up areas. International Road Federation includes City Name Sign from IAMM.
References: UN 1949, LN 1931, IAMM 1967, IRF 1984

PULL THRU SIGNS. This refers to a series of Signs for expressway and freeway interchanges exits that are replicated with the result of guiding or pulling motorists through a complex pattern of interchanges. The term appears in US MUTCD.
References: US MUTCD 1978, 1988

STREET NAME SIGN/STREET NAME PLATES. The sign follows standard shape and color configurations. They mark urban and rural roads and can include the name of the agency responsible for road and Sign. US MUTCD 1961 regards this Sign as a Direction & Destination Sign. The Sign displayed black symbols on white ground in US 1961 and white symbols on green ground in US 1971. Noble offers a slight variation with Street Name Plates.
References: US MUTCD 1961, 1971

SUPPLEMENTAL ADVANCE GUIDE SIGNS. US MUTCD 1971 added this Sign which gives destinations other than those of the Interchange Signs
Reference: US MUTCD 1971

1B3 Route Markers

a) Introductory Note & Overarching Terms

The category of Route Markers for a variety of systems consists of one entity: The Route Marker. While there is variation in the actual number and letter symbols

there is often just one form. However, a few national systems include a wide spectrum of Route Markers. This can create a problem if a system has a narrow range of such Devices yet a national system has many forms. It is possible that the many forms can be viewed as logical extension of the restricted forms of a system. The coverage for this study consists of Specialized Route Markers (b)), and Route Marker Arrows and Tab Signs (c)). Route Markers is retained in this study despite the decision of US MUTCD 2000 to drop the term for Route Markers in favor of Route Signs. The term Tab was employed extensively in the lst edition for what are frequently termed Auxiliary Markers (... Signs). That practice has been reduced in this study though Tab is retained as a title for a type of Device even when not part of the name. US MUTCD 2000 and 2003 change Route Marker to Route Sign. However, Route Marker continues as the preferred term in this study though the newer term is included.

ROUTE MARKERS/ROUTE SIGN. Often this Device is a graphic symbol with a number that designates a route and possibly a few letters. A shield form is a common graphic symbol. The word Marker -- rather than the word Sign -- is historically a common element. Road systems in large, populous and politically complex nations may have entire series of Route Markers. The frequently employed shield form can vary from muted forms to full cut-out types.
References: IAMM 1967, US MUTCD 1988 and earlier editions

ROAD IDENTIFICATION SIGNS. UN 1968 employs this term in place of Route Marker. UN 1968 does allow contracting parties to use a "route classification symbol" in place of rectangular-shaped Signs.
Reference: UN 1968

ROUTE-INDICATORS. This term, from IAMM 1967, is seemingly a synonym for Route Marker (which IAMM 1967 also employs). Indicator is an infrequent term for T-M. Certain forms of older Railway Signals uses Indicator as a term.
Reference: IAMM 1967

b) Specialized Route Markers Terms

AUXILIARY MARKERS/AUXILIARY SIGNS. These Markers accompany

Route Markers that denote a specific route. Auxiliary Markers denote junctions, route directions, turns, temporary, by-pass, alternate, business routes, detours. This study employed the Canadian term Tab for these Devices in the lst edition. That was a mistake when applied to US forms. However, Tab does constitute a general term for that form of Marker.
Reference: Canada 1976, US MUTCD 1988, 2003

BICYCLE ROUTE MARKERS. This Marker is more akin to a Sign. It denotes roadways and portions of roadways assigned to bicycle usage. The Marker is applied to all road users: bicycles, motorists, pedestrians. It is found in Canada and in the US. US MUTCD 2000 retains Marker even though Route Markers are otherwise renamed Route Signs.
Reference: Canada 1976, US MUTCD 1988, 2000

COMBINATION JUNCTION SIGN. This Sign is a substitute for Junction Assembly when multiple Route Markers are required. In US MUTCD 1961 the Sign had a black ground, white rim, white words and insert, and black numbers. In US MUTCD 1971, and newer editions the ground color was changed to green.
Reference: US MUTCD 1961, 1971

CONFIRMING ROUTE ASSEMBLY/REASSURANCE ASSEMBLY. These Devices consist of a Cardinal Direction Marker (now Sign), and Route Marker (now Sign). The Confirming Assembly is positioned slightly past where numbered routes intersect. The Reassurance form employed in urban areas between intersections and past built-up areas.
References: US MUTCD 2000, 2003

COUNTY ROUTE MARKER/COUNTY ROUTE SIGN. The National Association of Counties (US) created this Marker to denote county roads and to distinguish the Marker from other forms. It is pentagonal-shaped with blue ground and yellow rim and symbols. It is first listed in US MUTCD 1971. US MUTCD 2003 replaces Route Marker with Route Sign.
Reference: US MUTCD 1971, 2003

FOREST ROUTE MARKER. This Marker denotes a US forest road. The Marker

has a brown ground, white symbols, and a parallelogram shape. It is included in US MUTCD editions and presumably from the US Forest Service.
Reference: US MUTCD editions

INTERAMERICAN HIGHWAY ROUTE MARKER. Route Markers under this heading denote the Central - American Highway - System. It is listed in IAMM 1967.
Reference: IAMM 1967

INTERSTATE ROUTE MARKER/INTERSTATE ROUTE SIGN. This Marker is of a cut-out shield form denoting highways of the US Interstate System. (Shields are of two forms: one is the image of a shield embossed on metal, and the other is an actual shield cut-out of metal sheeting).
Reference: US MUTCD 1961, 2003

OFF-INTERSTATE BUSINESS LOOP MARKER/OFF-INTERSTATE BUSINESS SPUR MARKER. Both versions are of the Interstate Marker cut-out version. They display a green ground with white words and numbers. The word "spur" or "loop" is added. The Markers denote a extension of the interstate route that branches off to a business center.
References: US MUTCD editions

PAN AMERICAN ROAD ROUTE MARKER. Route Markers under this heading mark the Panamerican-Highway-System.
Reference: IAMM 1967

PROVINCIAL ROUTE MARKER. These Markers are designed and provided by the Provinces of Canada. They are described in general terms in Canada 1976.
Reference: Canada 1976

REASSURANCE ROUTE MARKER. This Marker is very similar to the Confirming Route Marker. They are placed between urban intersections and outside built-up areas.
Reference: US MUTCD 1961

ROAD MARKER. A historic term that appears in the title of an AASHO publication in 1925.
Reference: Hawkins 7-92

STATE ROUTE MARKER/STATE ROUTE SIGN. This form of Route Marker is the most diverse form in the US with every state having such a Marker. A recommended form exists which is square in shape containing a white circle with the route numbers; only about seven states have adopted this model. The range of designs include that suggest Speed Limit Signs. TCDHB 1983 illustrates the several forms of State Route Markers. US MUTCD 2003 changes Route Marker to Route Sign.
Reference: TCDHB 1983, US MUTCD 1988, 2000

TRAILBLAZERS. This term refers to US practice though it may well be found in other systems. It is an assemblage consisting of a Route Marker, a Tab with the word "To," a Directional Tab and possibly a Cardinal Direction Tab. The assemblage is placed along urban and other roads, indicating directions to a numbered route. It is listed in US MUTCD 1961 and other editions.
Reference: US MUTCD 1961

TRANS-CANADA ROUTE MARKER. This Marker is found exclusively with Canada's Trans-Canada Highway.
Reference: Canada 1976

TRUNK ROUTE MARKER. An historic term that denotes the Route Marker for US main or trunk roads in the 1920s.
Reference: Sessions 1961

US ROUTE MARKER. These Markers are found with US Routes excluding highways of the Interstate System. The cut-out form was used in US MUTCD 1961 and earlier, but dropped out with US MUTCD 1971. The remaining version is a rectangle with black ground and white shield shape with numbers in black. The name of the state no longer appears in US MUTCD editions.
References: US MUTCD 1961, 1971

c) Route Marker Tabs

General Note. US 1961 appears to add a great many specialized forms of Route Markers (termed Auxiliary Markers). While Canada 1976, a system akin to US practice in many respects, has few such Markers or so it seems. The seeming discrepancy is more a matter of semantics: various accoutrements and additions to basic Route Markers in Canada are termed Tabs not Markers while the US labels all of the limited scope entities as Markers though qualified by the word Auxiliary. The Canadian practice was followed in the lst edition of this study. While that was a mistake the term Tab does constitute a general term for the auxiliary or qualifying form of Marker. Tabs can be viewed as appendages, extensions, supplements to primary Sign forms.

ADVANCE TURN ARROW TABS/ADVANCE TURN ARROW MARKERS/ ADVANCE TURN ARROW AUXILIARY SIGN. These Tabs give advance information for a route that undergoes a turn or alter its direction. Tab and Route Marker usually display a horizontal format (in contrast to vertical arrangement of many other Tabs). This form is used in Canada and the US.
Reference: Canada 1976, US MUTCD 1988, 2000, 2003

BY-PASS TAB.This Tab accompanying a Route Marker indicates the branch of a main route which eventually reconnects with the main route. This form is employed in Canada.
Reference: Canada 1976

CARDINAL DIRECTION TAB SIGNS/CARDINAL DIRECTION MARKER/ CARDINAL DIRECTION AUXILIARY SIGN. These Tabs indicate route directions (North, East, South, West). They are employed in Canada and the US.
Reference: Canada 1976, US MUTCD 1988, 2000, 2003

DIRECTIONAL ARROWS TABS/DIRECTIONAL ARROWS MARKERS/ DIRECTIONAL ARROWS AUXILIARY SIGN. These Tabs denote a change in route due to a road alignment turn or direction change. The Tabs are arranged horizontally. See also Advance Turn Arrows.
References: Canada 1976, US MUTCD 1961, 1988, 2000, 2003

END MARKER/END AUXILIARY SIGN/END OF ROUTE TAB. This Tab indicates the End of a Route and accompanies the Route Marker.
Reference: Canada 1976, US 1971, 2003

JUNCTION TAB SIGNS. This Tab, in conjunction with a Route Marker, denotes an approaching intersecting route.
Reference: Canada 1976, US 1971

MARKERS FOR ALTERNATE ROUTES/ALTERNATE AUXILIARY SIGN/AUXILIARY SIGNS FOR ALTERNATIVE ROUTES. US 1961 includes a variety of Markers for Alternate Routes. Recent editions have changed Markers to Signs. These can be termed as of the Tab form since they have the form of a supplemental plate with a word form in close proximity to a Route Marker. They include:

TEMPORARY MARKER/TEMPORARY AUXILIARY SIGN. This indicates a non-permanent segment of regular route or a construction or emergency detour.

ALTERNATE MARKER/ALTERNATE AUXILIARY SIGN. This Tab indicates an official alternate for a portion of a route.

BYPASS MARKER/BY-PASS MARKER/BY-PASS AUXILIARY SIGN. This denotes a branch route through a city, congested or other area. The branch eventually rejoins the primary route. This is also listed with Tabs outside of this segment.

RELIEF MARKER. This form of Alternate Marker indicates a route that draws off vehicles from a congested route. US MUTCD 1961 gave this as an alternate name for the By-Pass Marker but was dropped by US MUTCD 1971.

BUSINESS MARKER/BUSINESS AUXILIARY SIGN. This Alternate Marker denotes a branch route into a commercial area.

DETOUR MARKER/DETOUR AUXILIARY MARKER SIGN. A temporary Marker denoting route temporarily closed by an emergency blocking or closing the standard route. Black on white ground motif of US 1961 is changed to black on orange in US 1971 and later. See Also Temporary Marker Tab. Now assigned to Temporary Traffic Control Devices in MUTCD 2000, 2003.

DETOUR SIGN. This Sign is a full synonym and alternate way of

indicating detours especially in emergencies. It displays an orange ground and black words within an arrow.

TRUCK ROUTE MARKER/TRUCK AUXILIARY SIGN. Device indicates an alternate route when appropriate for trucks to bypass regular numbered route.
References: USMUTCD, 1961, 1971, 1988, 2000, 2003

TAB SIGN. Overarching term for Route Marker Tabs in Canada.
Reference: Canada 1976

1B4 Mileposts

General Note. Mileposts have had a long history yet they are ignored in a variety of Twentieth century systems. Noble 1946 provides many details on ancient, medieval and early modern Mileposts and Milestons in various forms. These terms are included since they represent a major component of TCDs. Quite possibly they continues in use even if officially overlooked.

DIRECTION STONES. This term from Noble is for Milestones in The Netherlands.
Reference: Noble 1946

KILOMETRE STONES. This term stems from French practice as recounted in Noble 1946. It is often an actual stone, white in color with pertinent information painted on the stone. Tops were painted according to the category of road. The stones give place names, distance, road numbers. They are pre-UN entities and current status is not known.
Reference: Noble 1946

LANDMARKS/GUIDE SIGN. Further terms from Noble 1946. He views various stones on or near roads as Landmarks and Guides to travellers.
Reference: Noble 1946

MARK/MARKER. Noble employs these terms in a very general sense. They too are historic in nature.

Reference: Noble 1946

MARK STONES. A historical term. It is found in early Britain and even before the use of Milliary/Milliaries.
Reference: Noble 1946

MILE MARKER. This term is employed by a USDOT brochure from 1979. It is identical with the Milepost. The brochure may possibly have employed that term in order to achieve symmetry with accompany Route Marker forms.
Reference: USDOT 1979

MILEPOSTS/MILE POSTS (I).
General Note. Traditional name for a narrow post or panel which indicates miles/kilometer from the beginning of route, political boundary, or other designated point. US MUTCD 1961 forms displayed black symbols on white ground or white symbols on either green or black ground. US MUTCD 1971 and newer editions stipulate white symbols on green ground. Mexico, according to IAMM 1967, combines Mileposts with Route Markers. They are similar to US forms except for a greater length for the more extensive message. A working group of ECAFE 1964 included Mileposts though they are not included in the 1964 Code. That form originates in India and is in the form of Route Markers and Distance & Direction Signs. Mileposts are apparently not included by other systems. Mile Marker and Reference Location Sign are similar or identical Devices which see. Mile Posts as two words comes from Blanchard.

Classification #: 4332
Form of Aid: Unlighted TCD Aid
Operations: Signboards attached to posts give basic information of distance to a given point.
Comments: One of a few Sign types in an earlier time. Now it is one of many forms. A variant form would be Milestones.
References: IAMM 1967, US MUTCD 1961, 1971, ECAFE 1964, Blanchard 1919

MILEPOSTS (II). Mileposts in the Roman version constitute a column-shaped

stone rather than a wood post. The term probably denotes a dual-message: a vertical Sign, and a lower-level Milestone form.
Reference: Noble 1946

MILESTONES. A historic term. Milestones range in age from ancient civilization types to 19th century forms. They are similar in message and meaning to US Mileposts. Noble sees the Milestone as stemming from the Roman "milia passum" with its meaning of 1000 paces made by human steps. Milestones were known as Milliaries and possibly were set up to mark distances between "Mansiones" (Posting Stations). Many were carved stones giving distance in numbers to the next mansione. The stones were columns and might be round, oval or square.
Reference: Noble 1946

REFERENCE LOCATION SIGN/INTERMEDIATE REFERENCE LOCATION SIGN. US MUTCD 2000 and 2003 replaced Route Marker with these terms. However, Route Marker is retained in the studies. The basic new term displays an integer (whole number) distance point. The intermediate form adds a decimal point between the Reference Location Signs. US MUTCD noted that Mileposts could be 1/10 or 1/20 miles apart but the information was not visible to motorists. Instead it may have been added to the reverse side of the post.
References: US MUTCD 1971, 2000, 2003

ROAD MARKER. Noble applies this term to a stone that, while not a Milestone, marks a road in some manner though the purpose is not clear.
Reference: Noble 1946

STONE MARKERS. Historic term from Noble. The actual use of these Markers is somewhat vague. It is possibly an alternate name for Milestone.
Reference: Noble 1946

1B5 Signs Giving General Information (SGGI)

Introductory Note. Two systems employ this term: ECAFE 1964 and UN GERSS 1952. However, neither system provides information on what constitutes that category. Other systems providing details on this form of Sign do not employ the terms of Signs Giving General Information. Instead, they use a variant term(s) for this category of Signs. But none of the variant terms encompasses the totality of these Signs as well as Signs Giving General Information. For that reason SGGI is adopted for the Database.

a) Overarching Terms

DIRECTION, POSITION, OR INDICATION SIGNS. A second term from ECE 1995 that includes various words in a non-integrated manner. Many of these Signs are encompassed in the UN categories of Advance Direction, Direction, and Confirmatory Signs. Several new signs are also included. Indication Signs is an older overarching term for what Europeans now refers to as Informative Signs. However, it now has a restricted meaning.
Reference: ECE 1995

INFORMATION, FACILITIES OR SERVICE SIGNS. ECE 1995 employs this less than integrated phrase for what UN 1968 refers to as Signs Giving Notice of Facilities Which May Be Useful to Road Users. Admittedly, an awkward phrase though it forms an overarching term.
References: ECE 1995, UN 1968

GENERAL INFORMATION & AUXILIARY SIGNS. This is the overarching term for SGGI signs in IAMM 1967.
Reference: IAMM 1967

GENERAL INFORMATION SIGNS. This category of Signs do not include guidance Signs in a direct way. The signs include political boundaries, geographical data and other information that refers to safety, general interest and transportation-related matters.
Reference: US MUTCD 2003

GENERAL MOTORIST SERVICES SIGNS/SERVICE SIGNS. Terms for Signs known as General Service Signs. US MUTCD 1971 has a general heading of Service Signs with the second term included in the description of the Sign.
Reference: US MUTCD 1971

GENERAL SERVICE SIGNS. Signs for a wide range of traveler services including gas, food, lodging, medical services.
Reference: US MUTCD 2003

INDICATIVE SIGNS. This is the overarching term for this category in UN 1949 though UN 1949 has only limited Signs in the category.
Reference: UN 1949

INDICATION SIGNS/SIGNS GIVING INDICATIONS ONLY. LN 1931 and LN 1939 have only a few Signs corresponding to SGGI Signs and they are included in larger groups under these titles.
References: LN 1931, LN 1939

OTHER SIGNS PROVIDING USEFUL INFORMATION FOR DRIVERS OF VEHICLES/SIGNS GIVING NOTICE OF FACILITIES WHICH MAY BE USEFUL TO ROAD USERS. UN 1968 encompasses SGGI entities within two groups headed by these terms.
Reference: UN 1968

SIGNS GIVING GENERAL INFORMATION
Classification #: 4331
Form of Aid: Unlighted TCD Aid
Operation: Visual messages displayed through diverse alphanumeric and graphic symbol patterns.
Comments: A misnomer, Signs of General Interest (SOGI) was employed in the first edition. That term should have read Signs Giving General Information. It is possible that a garbled truncation of several terms may have taken place. The term General Interests Signs is a possible candidate.
References: ECAFE 1964, UN GERSS 1952

OFF-ROAD FACILITIES SIGNS. A major category in Canada. Signs indicate information and direction to off-road services and recreation facilities. They can be divided into three categories:

RECREATION & ACCOMODATIONS
ESSENTIAL SERVICES
FOOD & FUEL

Reference: Canada 1976

RECREATIONAL & CULTURAL INTEREST AREA SIGNS. These are possibly not sub-overarching in nature though they represent a specific segment of a wide nature. The Signs includes parks, campgrounds, museums, art galleries. These Signs are divided into Symbol Signs, and Destination Guide Signs. The Signs employ white symbols and borders on brown ground. Symbol Signs are divided into these categories:

GENERAL SERVICES
MOTORIST SERVICES
ACCOMODATIONS SERVICES
LAND
WATER
WINTER

References: US MUTCD 1988, 2003

ROUTING TO SPECIFIC DESTINATIONS. Specific destinations in Canada require identification of routes. These include hospitals and airports. The term is a category reference.
Reference: Canada 1976

MISCELLANEOUS INFORMATION SIGNS. In Canada these Signs are those not otherwise listed. They include county boundaries, geographical features and lakes, and first aid facilities.
Reference: Canada 1976

SERVICE SIGNS/SPECIFIC SERVICE SIGNS. Term refers to Signs that gives business identification and directions information for various services as well as

approved attractions. A somewhat narrower category than it may appear.
Reference: US MUTCD 2003

b) Services

ACCOMODATIONS SIGN/HOTEL SIGN/MOTEL SIGN/LODGING SIGN. A variety of terms indicate the nearby presence of public lodging. Most newer systems include one of these Sign models. A graphic symbol representing a bed is employed by IAMM 1967 and UN 1968. Lodging for US MUTCD 1961 relied on word inscription; newer editions adopted graphic forms.
References: IAMM 1967, UN 1968, US MUTCD

AIRPORT SIGNS. This Sign indicates a nearby airport with a representation of a plane. It is a Service Sign not a Warning or Regulatory Sign. It is listed in IAMM 1967 and Canada 1976. US MUTCD 1971 includes a similar Sign. Canada 1985 adds a second form of this Sign displaying a small airplane (the original Sign included a representation of a commercial jet).
References: IAMM 1967, Canada 1976, Canada 1985, US MUTCD 1971

AMBULANCE STATION SIGN. Sign denotes ambulance service that meets specific standards including 24/7 operation and certified personnel.
Reference: US MUTCD 2003

BREAKDOWN SERVICE SIGN /MECHANICAL HELP SIGN/MECHANICAL SERVICES SIGN/ SERVICE STATION SIGN. The various terms employ a very similiar graphic symbol: a large wrench bearing a resemblance to a pipe wrench. IAMM 1967 and 1981 add a directional arrow. Argentina displays two wrenches, without an arrow; a supplemental plate for mechanic service is included. Mexico displays a wrench of different form without other message.
References: IAMM 1967, 1971

CARPOOL INFORMATION SIGN. This Sign is posted on highways in areas where carpool sharing arrangements are available.
Reference: US MUTCD 2003

CHANNEL 9 MONITORED SIGN. Sign indicates radio service that provides emergency and travel-related information
Reference: US MUTCD 2003

EMERGENCY DIAL XXX SIGN. Sign for an emergency system for celluar phone communications.
Reference: US MUTCD 2003

EMERGENCY MEDICAL CARE SIGN. A Sign denoting an emergency medical facility.
Reference: US MUTCD 2003

EMERGENCY MEDICAL SERVICES SIGN. This Sign identifies medical faclities including hospitals, ambulances, emergency treatment centers that are designated as qualified installations.
Reference: US MUTCD 2003

FERRY BOAT SIGN. This Sign denotes ferry service and entrance. It displays a vehicle atop what appears to be a barge in water. It is a Service Sign rather than a Regulatory or Warning Sign.
Reference: IAMM 1967

FILLING STATION SIGN/FUEL SIGN/GAS SIGN/GAS STATION SIGN/ FUEL (DIESEL) SIGN. These diverse terms refer to the same matter: a refueling facility for motor vehicles. The symbol is frequently a representation of a fuel pump. US MUTCD 1961 continued the practice of word inscriptions though that changed with the 1971 edition. Canada employs the term Fuel; US adds Gas while IAMM adds Station to Gas. UN 1949 and UN 1968 use Filling Station. Seemingly there is no actual use of the term Petrol. IAMM adds an arrow while Argentina has its usual supplemental plate and no arrow. IAMM 1981 refers to "gasolina" while Argentina refers to "combustible". Ecuador and Mexico display a silhouette of a fuel pump without words or arrows. Canada 1985 adds a Fuel Sign (Diesel). It is very similar to the original Sign except for the letter "D" on the silhouette of the fuel pump.
References: US MUTCD 1961, US MUTCD 1971, Canada 1976, Canada 1985,

UN 1949, UN 1968

FIRST AID SIGN/FIRST-AID SIGN/FIRST AID STATION SIGN. This symbol bears a graphic image of a Christian cross for several system (Red Cross). UN 1949 and UN 1968 offers a Islamic Crescent (Red Crescent). UN 1968 employs a third symbol which is an Iranian Lion and Sun (Red Lion & Sun). IAMM has the standard Christian symbol with some variation of design and color in national exhibits. Argentina adds a supplemental plate. IAMM 1981 gives the hospital symbol ("H") for Ecuador for first aid.
References: UN 1949, UN 1968, IAMM 1981

FOOD SIGN/RESTAURANT SIGN/REFRESHMENT OR CAFETERIA SIGN. Restaurants are represented by what has become a nearly universal symbol: a crossed spoon and fork. But seemingly no knife. Argentina adds the usual supplemental plate and a portion of a plate with a knife and fork but no spoon. Ecuador has a knife and fork superimposed on a white plate serving as an insert within a square black sign plate. Mexico has a white knife and fork on square, black ground. The Refreshment or Cafeteria 1961 Sign of UN 1968 is represented by a coffee cup on saucer. US MUTCD 1961 continued to employ word inscriptions while newer editions moved to graphics. Canada 1976 employs a coffee cup and saucer; Canada 1985 adds a knife and fork.
References: IAMM 1981, UN 1968, US MUTCD 1961, Canada 1976, Canada 1985

HOSPITAL SIGN. This Sign indicates the nearby presence of a hospital. UN 1949 created a sign with the letter "H" accompanied by the word Hospital in the national language. This has become a nearly universal symbol. Various users have dropped the word including Canada 1976. ECE 1995 places this Sign in the Special Regulation category.
Reference: UN 1949, Canada 1976, ECE 1995

INTERNATIONAL SYMBOL OF ACCESSIBILITY FOR THE HANDICAPPED SIGN. This Sign is attached to General Service Signs to denote availability of ramps and restrooms for the physically handicapped.
Reference: US MUTCD 2003

LITTER CONTAINER SIGN. An advance Sign for turnouts and rest areas where containers are available.
Reference: US MUTCD 2003

NEXT SERVICES ... MILES SIGN. This Sign indicates distance to services rather than actual services. This Sign is from US MUTCD 1961.
Reference:

PHARMACY SIGN. Sign for a 24/7 qualified pharmacy within three miles of an interchange.
Reference: US MUTCD 2003

PHONE SIGN/TELEPHONE SIGN. This Sign denotes the nearby presence of a public pay phone. The graphic symbol for this phone is an obvious one: the handset of a conventional phone. US MUTCD 1961 employed a word inscription though a graphic symbolic representation was included in US MUTCD 1971. IAMM adds an arrow indicating location of the telephone. Argentina omits the arrows but adds a supplemental plate with the word telephone in Spanish. Ecuador and Mexico omit the arrow.
References: US MUTCD 1961, 1971, IAMM 1967

RECREATIONAL VEHICLE SANITARY STATION SIGN. A Sign indicating location of facilities for dumping recreational vehicles waste.
Reference: US MUTCD 2003

TRAVEL INFO CALL 511 SIGN. Sign for information phone number for road conditions, weather and other data.
Reference: US MUTCD 2003

c) Parking Signs

Parking Signs bears a strong resemblance to one another though under a variety of titles. Major titles and descriptions include:

AUTHORIZED PARKING PLACE SIGN/AUTHORIZED PARKING-PLACE SIGN. LN 1931 and LN 1939 have a Sign identical to later UN Signs though with a longer title. LN 1928 adds a hyphen.
References: LN 1928, LN 1931, LN 1939

PARKING SIGN. UN 1949, UN 1968 and other systems indicate Parking by the letter "P" without word inscriptions.
References: UN 1949, UN 1968

Some other Parking Signs are:

PARKING AREA SIGN. These Signs indicate the location of a parking area in an urban area. US MUTCD 1961and later editions includes the word Parking heading with the letter "P" five times larger than the other letters and accompanied by an arrow indicating the location of the parking area.
Reference: US MUTCD 1961

PARKING ALLOWED SIGN. IAMM 1967 includes a Sign similar to the UN Sign. The Sign displays either the letter E or P according to the national language; an arrow is also included. Argentina omits the arrow and instead adds a supplemental sign referring to parking; Argentina follows this practice with many Guide Signs. Mexico omits the arrows and also lacks any words.
Reference: IAMM 1967

PARKING WITHOUT LIGHTS SIGN. OBS 1950 includes this Sign but few details are available.
Reference: OBS 1950

PARK & RIDE SIGN/PARK & RIDE NEXT RIGHT SIGN. In US MUTCD and newer editions this Sign indicates parking area where parking and public transport or car pool options are available. The variant version is found on Expressways.
Reference: US MUTCD 1978, 1988

d) Recreation Signs

BOAT LAUNCH RAMP SIGN. This Canadian 1985 Sign includes a display of a boat on trailer at a ramp on the edge of a body of water. Symbol and rim are white and the ground is brown.
Reference: Canada 1985

CAMPING SIGN. This Sign displays an illustration of a tent indicating the close proximity of a campsite. US also has a version of this Sign in graphic form.
References: IAMM 1967, UN 1968

CAMPING OR CARAVAN SITE SIGN. This Sign includes an illustration of a tent joining a representation of a small trailer. It indicates that both tents and travel trailers are permitted.
Reference: UN 1968

CARAVAN SIGN. This Sign indicates facilities near highways that are available for trailer site rentals. The Sign displays a representation of a small travel trailer.
Reference: UN 1968

INFORMATION CENTER SITE SIGN. This Sign appears in US MUTCD 1961 which includes a section on Rest and Information Signs. No other edition has that configuration and seemingly the sign has been reformulated or deleted.
Reference: US MUTCD 1961

PICNIC SITE SIGN/PICNIC TABLE SIGN/PICNIC TABLES ... MILES SIGN/PICNIC AREA X KM (X MILES) SIGN. These Signs indicate the nearby presence of the facility in question. Picnic Site is a UN term and includes representation of table and tree. Picnic Table Signs is from Canada 1976 and displays a detailed representation of a table. Picnic Tables ... Miles is from US MUTCD 1971 and is in a word form. The last named Sign appears in recent editions of MUTCD. Related Signs are under the heading of Roadside.
Reference: UN 1968, US MUTCD editions, Canada 1976

REST AREA SIGN. This Sign denotes a planned rest facility and is adjacent to a freeway or expressway. This US MUTCD 1961 Signs in a word inscription format. This is also true of newer editions.

References: US MUTCD 1961

ROADSIDE PARKING AREA ... MILE SIGN/ROADSIDE REST ... FEET SIGN. This Sign denotes rest areas near rural highways. These Signs are examples of Rest and Information Area Signs. These Signs are in an alphanumeric form.
Reference: US MUTCD 1961

ROADSIDE TABLE X KM (X MILE) SIGN/ROADSIDE PARK X KM (X MILE) SIGN. Terms in US MUTCD 2003 that seemingly give kilometers priority over miles.
Reference: US MUTCD 2003

SCENIC AREA SIGN. This advance Sign indicates scenic areas exiting from a highway or expressway on US highways. It is from US 1961 and appears in newer editions.
Reference: US MUTCD 1961

SCENIC OVERLOOK SIGN. US MUTCD 1978 and 1988 include this Sign. It follows the format of the Scenic Area and other related Signs. The Sign has two forms: an advance form indicating distance to the Scenic Area, and a more immediate form that omits distance but adds an arrow indicating locations.
References: US MUTCD 1978, 1988

TENT CAMP SIGN. This Canadian Sign closely resembles the Camping Sign of other systems which see.
Reference: Canada 1976

TRAILER CAMP SIGN/TRAILER CAMPING SIGN. This Sign is similar to the Caravan Site Sign which see. The Sign displays an image of a small trailer.
Reference: Canada 1976

TRAVEL INFORMATION SIGN. This Sign denotes a facility offering travel services. The Sign displays a large question mark.
Reference: Canada 1976

TROLLEY PARK SIGN. This Sign has an alternate title of Caravan Site. The graphic symbols closely resemble the Caravan Site Sign of UN 1968.
Reference: IAMM 1967

VIEWPOINT SIGN. This Canadian Sign has a somewhat abstract appearance displaying two humans in pictograph from; one of whom is peering through a telescope. US MUTCD editions seem to lack a similar Sign yet Signs denoting Viewpoint and Vistapoint are commonplace in many areas.
References: Canada 1985, US MUTCD editions

YOUTH HOSTEL SIGN. This Sign indicates nearby low cost lodging. A representation of tree and rustic house are displayed on the Sign.
Reference: UN 1968

Other Recreational and Cultural Interest Area Signs: A brochure of USDOT 1979 provides many more Signs than do MUTCD editions. These Signs have a brown ground, white symbols, white rim on square plates with curved corners. The plethora of Signs includes: Winter Recreation Area (snow flake), Marina (anchor), Viewing Area (camera), Rest Rooms (pictographs of woman and man; the woman is of the one-legged version), Food Service (egg, milk carton, apple, toast), Post Office (envelope), Mechanic (wrench), Ferry (car on barge with waves), First Aid (standard cross symbol in red), Parking (letter "P"), Swimming (pictograph of human and waves), Canoeing (human representation, canoe, waves), Motor Boating (boat, waves), Boat Launching Ramp (boat on trailer on ramp partly in water), Sail Boating (sail boat, waves), Ice Scating (human representation with skates), Water Skiing (human representation on skies in water), Snow Skiing (human representation with poles, skies), Fishing (fish, hook), Ranger Station (human representation, building, flag), Amphitheater (curved lines representing seating, rectangle representing stage), No Smoking (cigarette with red oblique bar), Picnic Area (picnic table), Camp Fire (pieces of crossed wood and flames).

e) Other Signs

ACCESS FOR HANDICAPPED SIGN. Canada 1985 includes this Sign which

displays a human in pictograph form in a wheel chair.
Reference: Canada 1985

ADVANCE SIGNS-EXIT MOTORWAY. See Signs Notifying An Exit From Motorway.

ADVISED ITINERARY FOR HEAVY VEHICLES SIGN. A Sign that notifies trucks of advised iternary. No details offered beyond that.
Reference: ECE 1995

ADVISORY SPEED SIGN. This Sign is in the Informative Sign category rather than that of the Warning Sign Category. It advises appropriate speeds in various circumstances. The Sign has white symbols on a blue ground.
Reference: ECE 1995

BEGINNING OF BUILT-UP AREA SIGN/END OF BUILT UP AREA SIGN. ECE 1995 has several versions of these Signs. The name of the area can be displayed in black letters on white ground and black rim, or in white letters on blue ground. The area can be graphically represented by silhouettes of a city with/ without the name. The end of such areas can be represented by a red oblique bar over any of the previously described Signs.
Reference: ECE 1995

BICYCLE ROUTE SIGN. This Sign alerts motorists and cyclists of an official bike route. It is white on green ground. It appears in US 1971 and newer editions.
Reference: US MUTCD 1971

BUS STOP SIGN. This Sign includes a symbol of graphic representation of a bus indicating a scheduled stop.
Reference: IAMM 1967

BUS STOP/TRAMWAY STOP. This Sign in UN 1968 displays an outline of the bus or tramway in black on white insert on blue ground. ECE 1995 regards these Signs as part of the Special Regulation category.
Reference: UN 1968, ECE 1995

COUNTY SIGN. This Sign is from Canada 1976. It is the only system with a Sign under this name. It is in a word inscription form with the name of the County.
Reference: Canada 1976

CROSSOVER SIGN/ADVANCED CROSSOVER SIGN. US MUTCD 1988 includes this Sign. It indicates openings in the median of divided highways not marked by other Signs. It has white words and arrow on green with white rim. The Advanced Crossover form indicates distance to Crossover but without an arrow.
Reference: US MUTCD 1988

CUL-DE-SAC. This Sign from Canada 1976 indicates a street with a single entrance/exit. Dead End Street and No Outlet in US MUTCD 1971 are equivalents.
References: Canada 1976, US MUTCD 1971

ESCAPE LANE. This Sign from ECE 1995 is similar to the US Escape Ramp Sign. However, it is an Informative Sign not a Warning Sign. It displays a blue ground with white symbols except for a bar of white and red checks representing the escape lane.
Reference: ECE 1995

GENERAL SPEED LIMITS. This Sign from ECE 1995 is an Informative rather than a Regulatory Sign. It indicates general speed limits for a nation and may be posted near the national borders. The ground is blue and the name of the country and insert are in white. Speed limits for built-up areas, outside built-up areas, and expressways are presented in black within red circles.
Reference: ECE 1995

INFORMATION SIGNS (II). The name of this US MUTCD 1961 Sign may suggest a broad scope; however, it has a relatively restricted role. US MUTCD 1971 renamed this Sign category as General Information Signs which is more accurate. These Signs are not direct guidance Signs though they provide a variety

of information. The information can include political boundaries, geographical and cultural information. These Signs have diverse messages which are less tied to core TCD concerns. See also Information Signs (I), 1B1 (a).
References: US MUTCD 1961, US MUTCD 1971

INFORMATION SYMBOL SIGN. A Sign that identifies transportation or general information facility route.
Reference: US MUTCD 2003

NATIONAL SCENIC BYWAY SIGNS. Signs denoting roads designated National Scenic Byways or All-American Raods. Significance of roads can be based on archeological, cultural, historic, natural, recreational or scenic character.
Reference: US MUTCD 2003

NO THROUGH ROAD. This Sign indicates a road intended only for local use. The Sign has a blue ground, white bar representing a roadway and ended by a red box or bar.
References: UN 1968, ECE 1995

MOTORWAY SIGN/END OF MOTORWAY SIGN. These Signs denote the commencement of special operating rules on motorways as well as the end of these rules. ECE 1995 places these Signs in the Special Regulation category.
References: ECE 1995

PEDESTRIAN ACTIVATED SIGNAL SIGNS. This Sign, associated with Signals, is included by Canada 1976. It is listed in the Miscellaneous Information Signs for Canada and is in a word format.
Reference: Canada 1976

PARKING AREA SIGNS. Sign provides directions to public parking facility.
Reference: US MUTCD 2003

PEDESTRIAN OVERPASS SIGNS/PEDESTRIAN UNDERPASS SIGNS. These ECE 1995 Signs portray a pictograph of a person descending a flight of steps in the first Sign, and a pictograph of a person ascending an incline in the

second sign.
Reference: ECE 1995

POLICE SIGN. Canada 1985 and US MUTCD 1988 include this Sign. It is a Guide or Information Sign with white letters and rim on blue ground.
Reference: Canada 1985, US MUTCD 1988

PROTECTED PEDESTRIAN WALK SIGN. This Sign denotes a walkway above or below motor vehicle level. The Sign displays a pedestrian walking between parallel dotted lines. It is seemingly found only with IAMM 1967.
Reference: IAMM 1967

RADIO INFORMATION SIGNING. This heading includes Radio-Weather Information Signs, and Radio-Traffic Information Signs.
Reference: US MUTCD 2003

RADIO-TRAFFIC INFORMATION SIGNS/RADIO-WEATHER INFORMATION SIGN. These Signs display white symbols and border on blue ground. The former sign is linked with traffic management systems. The latter Sign is employed where adverse weather is a common occurence.
Reference: US MUTCD 2003

RECREATION AREA SIGN. Older editions of MUTCD included a brief entry for this Sign in contrast to the special segment in newer editions.
Reference: US MUTCD 1971, 2003

REST & INFORMATION AREA SIGNS. US MUTCD 1961 includes this Sign for a range of Sign types. The 1971 edition replaces that term with Rest Area, Scenic Areas and Recreation Area Signs.
Reference: US MUTCD 1961, 1971

REST AREA SIGNS. Signs denoting location of parking and restrooms.
Reference: US MUTCD 2003

RECYCLING COLLECTION CENTER SIGN. A Sign giving directions to a

recycling center.
Reference: US MUTCD 2003

RIVER & LAKE SIGNS. This Sign indicates River & Lake features that cross or parallel a numbered route.
Reference: Canada 1976

ROAD FOR MOTOR VEHICLES SIGNS/END OF ROAD FOR MOTOR VEHICLES. These Signs pertain to Roads not classified as motorways but having special rules. ECE 1995 places these Signs in the Special Regulation category.
Reference: ECE 1995

SANITARY FACILITY SIGNS. The name of this Sign suggests a wide range of facilities but the Sign symbols display only a representation of water running from a faucet in close proximity to a human hand. Argentina drops the arrow and adds a supplemental plate in word form. Venezuela displays a graphic of a large faucet. Mexico's version is a form of pictograph of faucet, water and hand.
Reference: IAMM 1967

SIGNS INDICATING NUMBER & DIRECTION OF TRAFFIC LANES SIGNS. These Signs are from ECE 1995. ECE provides three versions: arrows representing traffic lanes denoting a lane bifurcating into two lanes; a lane following a diagonal pattern adjusting to a straight direction, and lanes entering a divided highway zone.
Reference: ECE 1995

SIGNS INDICATING CLOSURE OF A TRAFFIC LANE. This ECE 1995 Sign has two versions: a white arrow representing a lane merging with an adjoining lane on a blue ground, and black arrows with one arrow ended by a black bar on a white ground.
Reference: ECE 1995

SIGNS NOTIFYING AN EXIT FROM A MOTORWAY. These Signs or Panels indicate the distance to an exit. The Panels are three in number of an elongated rectangular shape displaying diagonal white stripes on blue ground and with the

distance in kilometers. Advance Signs-Exit Motorway is a short-hand form probably coined by the compiler. It is included but only as an indicator for this correct form.
Reference: ECE 1995

TOURIST INFORMATION CENTER SIGNS/WELCOME CENTER SIGNS. These Signs are installed on freeways and expressways to indicate location of these centers.
Reference: US MUTCD 2003

TOURIST-ORIENTATED DIRECTIONAL SIGNS (TODS). These Signs display panel(s) identifying and giving directions to businesses that focus on tourist customers. TODS is a special segment of Guide Signs. US MUTCD 1988 lacks a hyphen while US MUTCD 2003 lacks TODS
References: US MUTCD 1988, 2003

TRAFFIC SIGNAL SPEED SIGN. This Sign is an Guide Sign in US MUTCD 1971 though listed as a Warning Sign in the 1961 edition. It displays the message of "Signal Set for ___MPH." It indicates a group of Signals coordinated for a given speed. Its color scheme is white on green in the 1971 edition and newer editions.
Reference: US MUTCD 1961, 1971

TRAIL SIGNS. Signs for providing information to road users on trails that have significance because of cultural, educational, educational import.
Reference: US MUTCD 2003

TURN MARKER. The term and shape (shield) strongly suggest a Route Marker. The message supports that notion yet the addition of the letter "L" or "R" denotes advance notice of an upcoming turn in the 1920s when the Sign was employed.
Reference: Hawkins 7-92

WEIGH STATION SIGNING. US Weigh Station Signs include forms:
ADVANCE SYMBOL SIGNS
ALL TRUCKS COMMERCIAL VEHICLES NEXT RIGHT SIGNS

EXIT DIRECTION SIGNS
GORE SIGN

These Signs have a green ground with white letters and numbers. One Sign, All Trucks Commercial Vehicles Next Right, has a black ground and white letters.
Reference: US MUTCD 1978

CASATC 1950 includes two public transit Signs though with few details documents:

SECOND STAGE
TRAM STOP NO.___

US MUTCD 1971 includes a variety of Miscellaneous Signs with few details:

DO NOT THROW LITTER
EMERGENCY & AUTHORIZED VEHICLES ONLY
KEEP OFF WET PAINT
NO DUMPING ALLOWED
NO FISHING FROM BRIDGE

CHAPTER TWO

WARNING SIGNS

1A Indexes

1A1 Category Index

Introduction, Message Configurations & Overarching Terms (2B1)
- a) Introductory Note & Overarching Terms
  - Warning Signs
  - Caution Signs
  - Danger Signs/Danger Warning Sign
  - Giving Warning of Danger
  - Advance Warning Signs I, II
  - Interactions of Vehicles With Other Moving Objects
  - Non-Vehicular-Related Hazards Signs
  - Prevention Sign
  - Roadway-Related Hazards Sign
  - Roadway & Environs Signs
  - Traffic-Related Hazards Sign
  - Warning Signs at Approaches to Intersections
  - Warning Signposts
- b) Message Configurations

Roadway Alignment Signs (2B2)
- a) Introductory Note & Overarching Terms
  - Curve Signs
  - Dangerous Bends Sign/Bend Sign
  - Dangerous Curves Sign
  - Horizontal Alinement Changes Sign
  - Roadway Alignment Signs
  - Turns Sign
- b) Specific Terms
  - Bad Corner Sign
  - Bends Sign/Left Bend Sign/Right Bend Sign/Single Bend to the Right,

Left Sign
Chevron Alignment Sign
Combination Horizontal Alignment Sign/Advisory Speed Sign
Combination Horizontal Alignment/Intersection Sign
Curve, Left, Right, Sign/Single Curve, Left, Right Sign
Curve Speed Signs
Dangerous Corner Sign
Dangerous Reverse Bend Winding to the Right, Left Signs
Dangerous Sharp Turning to the Right.
Double Bend, Left, Right Sign/Double Bend to the Right, Left Sign
Large Arrow Sign/Directional Arrow/Bi-Directional Arrow
Limited Sight Distance Sign
Reverse Curve, Left, Right Signs
Reverse Turn, Left, Right Signs
Sharp Curve Sign
Truck Rollover Sign
Turn, Left, Right Sign/Single Turn, Left, Right Sign
270 Degree Curve Sign/270-Degree Loop Sign
Sharp Turn Sign
Winding Road Sign/Right Winding Road Sign/Left Winding Road Sign

Roadway Conditions Signs (2B3)

a) Introductory Statements & Overarching Terms
Roadway Conditions Sign
Roadway Surface Conditions Sign/Special Roadway Features Signs/Road SurfacePhysical Conditions Signs

b) Specific Terms
Added Lane Signs
Bicycle Surface Condition Warning Sign
Bridge Ices Before Road Sign
Clearance Sign/Low Clearance Sign/Narrow Clearance Sign/Limited Width Sign
Bikeway Narrows Sign
Bumps Sign/Dips Sign
Checkerboard Sign
Cross-Drain or Dip Sign

Dangerous Shoulder Sign
Draw Bridge Sign/Hump Bridge Sign/Narrow Bridge Sign/Narrow Structure Sign/One Lane Bridge Sign/Opening Bridge Sign/Swing Bridge Sign
Gutter Sign
Loose Gravel Sign
Hill Sign/Dangerous Hill Sign/Dangerous Descent Sign/Dangerous Ascent Sign/Dangerous Steep Descent to R or L Sign/Hill_In_Sign/Steep Ascent Sign/Bike Hill Sign
Intersection Warning Signs
Lane Ends Sign
Right (Left) Lane Ends Sign
Lane Ends Merge Left (Right) Sign
No Traffic Sign
Pavement Drop-Off Sign
Pavement End Sign
__% Grade Sign/Next__Miles/__% Grade [&]__Miles Supplemental Plates
Rough Road Sign
Road Narrows Sign/Narrow Road Sign/Carriageway Narrows Signs/Pavement Narrows Sign/Lane Reduction Transition Sign/ Pavement-Width Transition Sign
Runway Truck Ramp__Miles Sign/Runway Truck Ramp Sign Sand/Gravel/Paved Supplemental Plates
Road Leads on to Quay or River Bank Sign
Road Narrows Dangerously Sign
Shoulder Signs
Soft Shoulder Sign
Low Shoulder Sign
Shoulder Drop-Off Sign
Speed Hump Sign
Truck Escape Ramp Sign
Truck Escape Ramp Sign
Runaway Truck Ramp Sign/Runaway Truck Ramp One Mile Sign
Uneven Lane Sign

Uneven Road Sign
Intersections Sign (2B4)

a) Overarching Terms

Intersection Sign
Intersection Warning Sign
Concealed Road Sign/Hidden Signs, Plaques
Crossing Sign

b) Specific Terms

Cross Road Sign/Cross-Road Sign/Crossroad Sign
Cross Street Sign
Crossing Sign
Dangerous Fork Sign
Dangerous T-Junction Sign
Delta Sign
Double Arrow Sign
Merge Sign/Merging Traffic Sign
Road Intersection Sign
Road in Which Another Road Ends at a Junction Sign
Road Junction Sign/Road Junction Sign
Side Road Sign
Signal Ahead Sign
Stop Sign Ahead Sign/Stop Ahead Sign
Successive Tees Sign
"T" Sign/T Intersection Sign/ T-Intersection SignT-Symbol Sign
Traffic Circle Sign/Roundabout Sign
Two-Direction Arrow Sign
"Y" Sign/Y Intersection Sign/Y-Intersection Sign/Y-Symbol Sign
Yield Ahead Sign

Intermittent Moving Hazards Signs (2B5)

Intermittent Moving Hazards Sign
Advance Crossing Sign/Crossing Sign
Advance School Warning Sign
Beware of Animals Sign
Bicycle Crossing Warning/Cyclists Entering or Crossing Sign
Cattle or Other Animal Crossing Sign

Cattle Crossing Sign
Children Sign
Congestion Sign
Cross Walk Sign
Crossing No Gates/Gates or Level Crossing Barrier/Level Crossing with Barrier /Level Crossing Unguarded/Level Crossing/Guarded Level Crossing/Level Crossing Guarded by Gate/Level Crossing Warning Gate/Level
Crossing Stop Sign/Unguarded Level Crossing Sign/Unguarded Level-Crossing Sign/Level-Crossing with Gates/Level-Crossing without Gates/Railway Advance Warning/Railway Cross-Buck Sign/ Unprotected Railroad-Crossing/Protected Railroad Crossing
Deer Crossing Sign
Fallen Rock Sign/Falling Rock or Landslide Sign
Farm Machinery Sign
Grade Crossing Sign
Hazardous Condition Sign
High Water Sign
Deer Crossing Sign
Low Ground Clearance Plaque
Moose Crossing Sign
Motorized Traffic Sign
No Signal Sign
No Train Horn Sign
Pedestrian Crossing Ahead Sign/Pedestrian Crossing Sign/Pedestrian Crossing Sign
Playground Ahead Sign/Playground Sign
Prepare to Stop Sign
Railroad Sign/Railway Level Crossing Sign
Range Cattle Sign
School Bus Stop Sign Ahead
School Crossing Warning Assembly/School Crossing Sign
School Crosswalk Sign
School Sign/School Ahead Sign/School Crossing Sign/School Zone Sign
School Speed Limits Sign

Slippery When Wet Bicycle Path Sign
Slippery When Wet Sign/Slippery Road Sign
Snowmobile Crossing Sign
Snowmobile Sign
Storage Space Sign
Train May Exceed 130 Kmh (80 Mph) Sign
Truck Crossing Sign/Truck Entrance Sign, Right, Left
Use Second Gear Sign/Use Lower Gear Sign/Trucks Use Lower Gear Sign
Vehicular Traffic Signs
Golf Cart Sign/Bicyclist Sign/Farm Vehicles Sign/Emergency Vehicles/Horse-Drawn Vehicles Sign/Truck Crossing Sign

Construction & Maintenance Signs (2B6)
General Note
Construction & Maintenance Sign
Advance Road (Street) Construction Sign
Advance Closed Sign
Advance One Lane Road Sign
Advance Lane Closed Sign
Advance Detour Sign
Blasting Zone XXX Feet Sign/Turn Off 2-Way Radio Sign/End Blasting Zone Sign
Road Work Sign/Road Works Sign
Road Repairs Ahead Sign
Road Work Ahead Sign/Road Works_ Sign
Men Working Sign
US C & M Signs
Road Construction ... Feet Sign/Detour Ahead Sign/Road [Street] Closed ... Feet/One Lane Road ... Feet Sign/Men Working Sign/Fresh Oil Sign/Road Machinery Ahead Sign/Shoulder Work Ahead Sign/Survey [Crew] Party Sign/Flagger Sign/ Flagman... Feet Sign/Left [Right] Lane Closed [Ahead] Sign/Men Working Sign/Single Lane ... Feet Sign/Worker Sign/ Worker Sign/Blasting Zone__Feet Sign/Off 2-Way Radio Sign/End Blasting Zone Sign/End Construction Sign/Pilot Car Follow Me Sign

Canada C & M Signs
Roadside Diversion Sign/Detour Sign/Flagman Sign/Survey Crew Sign/Truck Entrance Signs
Construction Approach Warning Sign
Temporary TCD Sign/Temporary TCD Zone Devices
Temporary TCD Signs

Other Hazards Signs (2B7)

a) General or Alternative Danger Signs
General Note
Alternate General Danger Sign
Alternate Sign
Dangers Other Than Those Indicated by Signs 1-6 Bis
General Danger Sign
Peligro Sign
Other Dangers Sign

b) Miscellaneous Sign
Additional Panels
Advance Traffic Control Sign
Stop Ahead Sign/Yield Ahead Sign/Signal Ahead Sign
Advisory Exit Speed Sign
Airfield Sign/Airplane Sign
Be Prepared To Stop Sign
Bicycle Crossing Warning Sign/Cyclists Entering or Crossing Sign
Bridle Path
Chevron/Chevron Alignment Sign
Cross-Wind Sign
Dead End Sign/No Outlet Sign
Divided Highway Ahead Sign
Divided Highway Sign/Divided Highway (Road) Sign
Divided Highway Ends Sign
Exit Sign
Factory Entrance Sign
No Passing Zone Sign
Notice Boards
Ramp Speed Sign

Road Diversion Sign
Rules of Road Sign
Snowflakes Sign
Speed Hump Sign
Speed Reduction Sign
Temporary Two-Way Ahead Sign
Two-Way Traffic Sign
Uneven Tracks Sign

c) Supplemental Plates/Plaques

Advance Street Name Plaque
Advisory Speed Plate
Cross Traffic Does Not Stop Plaque
Dead EndPlaque/No Outlet Plaques
Distance Plaque/Next Distance Plaque/Distance Ahead Plaque
Emergency Vehicle Sign/Emergency Signal Ahead Plaque
High-Occupancy Vehicle Plaque
Hill-Related Plaque
No Outlet Plaque
Photo Enforced Plaque
Share the Road Plaque
Supplemental Arrow Plaques
Advance Arrow Plaque/Diagonal Arrow Plaque/Directional Arrow Plaque
Supplemental Plaques
Traffic Circle Plaque
Truck Use Lower Gear Plaque

1A2 Alphabetical Index

2B Warning Signs

2B1 Introduction, Message Configurations & Overarching Terms

a) Introductory Note & Overarching Terms

The various TCD systems arrange Signs according to different principles. Some systems, such as UN GERSS 1952, focus on the individual Sign and offer only limited categories and other subdivisions. Canada by contrast, has produced a comprehensive system of subclasses and sections for all forms. UN 1968 provides a multi-level system of divisions and subdivisions for Regulatory Signs but it provides litttle in the way of an overarching structure. Because the Database is predicated on an overarching structure with various categories and other divisions it became necessary to look elsewhere for a structure. The resulting structure is a modified version of Canada's system. This structure places the various Warning Signs into one of a half-dozen categories. The identity and function of the Signs has not been lost even though the Signs have undergone rearrangement.

It may be noted that UN 1968 has more than one category for Warning Signs. All Signs for Intersections are an independent category divided into Regulatory and Warning sections; Level-Crossing Signs are a separate group. All other Warning Signs are considered together.

The structure for Warning Signs is simpler than for Regulatory Signs. Regulatory forms have four main sections and one of those segments has five subdivisions and one of those subdivisions has, in turn, five segments. Warning Signs has six basic segments with no further differentiation.

WARNING SIGNS.
Classification #: 431
Form of Aid: Unlighted TCD Aids
Operation: Messages presented through word and alphanumeric symbols displayed on Signboards.
Comments: This is the term of preference in the Western Hemisphere: IAMM, Canada, US. It is also employed by ECAFE 1964. Some past UK publications

also favor Warning Signs. The Database has adopted this usage.
References: US MUTCD editions,

CAUTION SIGNS. Hawkins 7-92 includes a reference to Caution Signs which stems from older US practice. Caution Signs were seemingly set apart from Warning Signs. However, Caution Signs include the diamond-shaped, black on yellow format associated with Warning Signs. By 1935 Caution Signs were part of the Warning Sign category in the US. This historical usage is more in the form of a subarching term and perhaps more appropriate in miscellaneous terms.
References: Hawkins 7-92

DANGER SIGNS/DANGER WARNING SIGNS. European sources favored the first term to and including UN 1949. The second is of a composite term employed by UN 1968 and also UN GERSS 1952 and the African system of CASATAC.
References: UN 1949, UN 1968, UN GERSS 1952, CASATAC 1952

GIVING WARNING OF DANGERS SIGNS. UK practice as outlined in Noble 1946 includes the curious amalgam of Warning and Informative Signs but also a schema in which Warning Signs are presented as Giving Warning of Dangers. The adjoining standard categories of Prohibitory, Informative, Mandatory in UK offer conventional terms.
Reference: Noble 1946

ADVANCE WARNING SIGNS (I). The 1944 UK Committee added Signs to be used in advance of a danger. The Signs were to be standard Warning Signs accompanied by a plate indicating distance to the danger. There are some present day Signs which approximate that approach in other systems.
Reference: Noble 1946

ADVANCE WARNING SIGNS (II). Seemingly this term refers to Signs for Construction, Maintenance and other Temporary TCD use. Yet it can appear as a broader term. US MUTCD 2000, 2003 include the term but Signs within it are not prefaced by the word Advance in in older editions they are so prefaced.
References: US MUTCD 1988, 2000, 2003

INTERACTION OF VEHICLES WITH OTHER MOVING OBJECTS. A term in the lst edition of Part E; it was replaced by Intermittent Moving Hazards in the 2nd edition and also in the lst edition of this study.
Reference: Part E, lst edition

NON-VEHICULAR-RELATED HAZARDS SIGN. A term of Jones and Hawkins. It is related to one division of the Traffic Related Category of MUTCD.
Reference: Jones and Hawkins 1997, US MUTCD 2000, 2003

PREVENTION SIGN. IAMM 1967 includes both Warning and Prevention Signs terms. They are seemingly employed interchangeably.
Reference: IAMM 1967

ROADWAY-RELATED HAZARDS SIGN. A term of Jones and Hawkins that is related to the MUTCD Roadway Related Category; it adds Signs to the basic terms.
Reference: Jones and Hawkins 1997

ROADWAY & ENVIRONS SIGNS. A term in the lst edition of Part E that was replaced by the more conventional term of Roadway Alignment Signs.
Reference: Part E, lst edition

TRAFFIC-RELATED HAZARDS SIGN. A term of Jones and Hawkins that is related to MUTCD Traffic Related Category. The term adds Sign to the core term.
Reference: Jones and Hawkins 1997

WARNING SIGNS AT APPROACHES TO INTERSECTIONS. A term from lst edition of Part E that has been replaced by Intersection Signs.
Reference: Part E, lst edition

WARNING SIGNPOSTS. An outline of British practice by Noble includes mention of Warning Signposts rather than Warning Signs. Signpost has the full meaning of Sign and not merely a wooden post on which Signs are fastened.
Reference: Noble 1946

b) Message Configurations

Color, shape, graphic and word symbol arrangements are largely fixed for the various systems. These comments on messages refer to the several categories of Warning Signs except where noted. UN 1958 approves two Sign models: 1) The form associated originally with Europe consisting of an equilateral triangle with one point up. It has a white or yellow ground and red rim. 2) The "American" model with its diamond-shape and yellow ground and black rim. Word and graphic symbols for both models are black or dark blue.

UN GERSS 1952 and ECAFE 1964 add a third model: The double Sign consisting of a triangle above a rectangle or diamond-shaped plate from UK OBS 1950 and CASATC 1952. The ground color is yellow and the symbol is black or other dark color. Borders, if present, are black or another dark color. ECAFE 1964 permits a white ground with red borders.

IAMM 1967 specifies diamond-shaped Signs with yellow ground and black symbols and borders. Large Arrow and Railroad Crossbuck Signs are exceptions. The border of IAMM is similar to the rim of US and Canada.

UN 1949 employed equilateral triangles with one point up. The Priority Road Sign is an exception with its triangle with one point down. The Signs have a white or light yellow ground; borders are red with symbols that are black "or dark."

Canada 1976 employs diamond-shaped Signs with yellow ground. Borders and graphic and word symbols are usually black. Temporary Condition Signs display orange ground. The School Ahead Sign has a pentagon shape with white symbols and border. The borders are usually narrow and can be viewed as rims.

US MUTCD editions includes diamond-shaped Signs with black graphic and word symbols with yellow ground. Railroad Crossing Signs, Large Arrow Signs, Advisory Speed Plates are exceptions.

OBS 1950 two-part Signs employed white grounds with black symbols and borders for lower Signs. The upper Sign displayed a red border and white ground;

Sign shape was a triangle with one point up.

CASATC 1950 is similar to OBS except for a lower Sign ground color of yellow. Railway Crossbuck Signs have red borders and white ground. A variant South African form displays yellow border with black ground.

LN 1939 offers more flexible message configurations than more modern systems. Symbols can be either black or "very dark"; or white or "pale yellow." Ground colors can be white, yellow, or "dark". Border colors can be red for light ground colors or black or dark. Dark ground border colors are to be red.

While details are limited for LN 1926 some information is available. Grounds are to be dark, and the symbol colors to be light. Only the hollow Sign has a border. The LN 1928 Committee Report offered a variety of possibilities and refrained from mandating any single approach. Options included white symbols on dark blue ground; black symbols on white ground; black symbols on white ground with red border. The hollow triangle was to be red. LN 1931 does not include color patterns for Danger Signs. It can be noted that nearly all 1931 Signs are from 1926.

2B2 Roadway Alignment Signs

a) Introductory Note & Overarching Terms. This group of Signs has considerable coherence. Terms are limited even though a variety of road situations are included. These Signs include several forms. UN 1968 includes Bends but not Turns. Older European systems include a Turn Sign that can be described as a "Hairpin" Turn, and sometimes viewed as a Bend. UN GERSS 1952 and ECAFE 1964 include both Turns and Curves; the accompanying terminology includes only the overarching term. Western Hemisphere systems include both Curves and Turns. The term Bend is omitted. Bends and Curves appear to be synonyms though Turns are a separate entry.

CURVES SIGN. A possible sub-overarching term. IAMM includes all Signs involved with horizontal changes in alignment under this term. It suggests a less sharp, though immediate change. Other terms, including Bends and Turns, need to

be examined for a fuller meaning.
Reference: IAMM 1967

DANGEROUS BENDS SIGN/BENDS SIGN. UN 1968 employs Dangerous Bends or Bends for sub-overarching term. No names are given for the individual entities. Some members of the category are similar to those of UN GERSS 1952 and ECAFE 1964 though arrowheads are omitted.
References: UN 1968

DANGEROUS CURVES SIGN. This may appear to be a specific Sign title and that may be the case on occasion. But for ECAFE 1964 and UN GERSS 1952 it is a sub-overarching term for all forms of Curves. Those systems lack terms for individual entries in the category including the terms Bends and Turns.
References: ECAFE 1964, UN GERSS 1952

HORIZONTAL ALINEMENT CHANGES SIGN. A variety of terms are available for this category of Signs. Ths term comes from US MUTCD 1961. Yet an Canadian term, Roadway Alignment Sign, seems more adequate. Other terms include Curves (IAMM 1967) and Dangerous Curves (UN GERSS 1952, ECAFE 1964).
References: US MUTCD 1961, Canada 1976, UN GERSS 1952, ECAFE 1964

ROADWAY ALIGNMENT SIGNS.
Classification #: 4310
Type of Aid: Unlighted TCD
Operation: Messages displayed on Signboards. Display through color, alphanumeric, graphic symbols according to established patterns.
Comments: Canada 197 employs this term for this category of Signs. The term encompasses the variety of Signs more adequately than other terms.
Reference: Canada 1976

TURNS SIGN. This is a sub-overarching term yet it has a general character for a variety of Systems. It can be regarded as a synonym for other terms denoting changes in road alignment. It suggests a more sharp change in alignment as opposed to a more gradual, gentle change.

b) Specific Terms

BAD CORNER SIGN. A historic term from US MUTCD 1935. It displayed black words on white ground.
Reference: *Hawkins* 8-92

BENDS SIGN/LEFT BENDSIGN/RIGHT BENDSIGN/SINGLE BEND TO THE RIGHT, LEFT SIGNS. The term Bend apparently first appears with LN 1926 then LN 1939. Both UN 1949 and UN 1968 employ Bend exclusively. Bend may suggest a gentle appearance similar to what is termed Curve in several systems. However, a general purpose Bend Sign in UN 1949 has the graphic symbol associated with Sharp Turn in older European systems; Sharp Turn has the visual appearance of a "Hairpin" Turn. Double Bends and Reverse Bends are separate terms.
Reference: UN 1926, LN 1939, UN 1949, UN 1968, UN GERSS 1952, ECAFE 1964

CHEVRON ALIGNMENT SIGN. This is a supplement or alternate to the Large Arrow Sign. The Chevron gives added attention to road alignment (horizontal) changes. It consists of bold chevrons in black on yellow ground embossed on rectangular-shaped plates.
References: US MUTCD 1978, 1988, Canada 1985

COMBINATION HORIZONTAL ALIGNMENT SIGN/ADVISORY SPEED SIGN. Turn or Curve Sign is combined with Advisory Speed Plaque indicating upcoming road condition with appropriate speed recommendation.
Reference: US MUTCD 2000

COMBINATION HORIZONTAL ALIGNMENT SIGN/INTERSECTION SIGN. Turn or Curve Sign with Cross Road or Side Road Sign. Signs indicate the situation of an intersection within curve or turn.
Reference: US MUTCD 2000

CURVE, LEFT, RIGHT SIGN/SINGLE CURVE, LEFT, RIGHT SIGN. Curve,

as already noted, is employed in Western Hemisphere systems and ECAFE 1964, UN GERSS. It indicates a change in alignment that, while not sharp, is immediate.
References: US MUTCD editions, Canada 1976, IAMM 1967, ECAFE 1964, UN GERSS 1952

CURVE SPEED SIGN. A Sign that advised recommended speed on curves.
Reference: US MUTCD 2000

DANGEROUS CORNER SIGN. Hawkins includes this Sign from the 1930 Manual. It is in a word form with black letters on white.
References: Hawkins 7-92

DANGEROUS REVERSE BEND WINDING TO THE RIGHT, LEFT SIGN. These Signs from CASATC 1950 are similar in design to the Double Bend Signs of UN 1968.
Reference: CASATC 1950

DANGEROUS SHARP TURNING TO THE RIGHT SIGN. This Sign from CASATC 1950 is somewhat similar to Reverse Turn Signs of Western Hemisphere systems. Apparently there is no comparable Sign to the left.
Reference: CASATC 1950

DOUBLE BEND, LEFT, RIGHT SIGNS/DOUBLE BEND TO THE RIGHT, LEFT SIGNS. League of Nations and UN 1968 employ the word "Double" for Signs with multiple bends/curves/turns. The graphic symbol shows a very dramatic and sharp double change in alignment; the actual road condition could have several such changes in close proximity.
References: LN 1939, UN 1968

LARGE ARROW SIGN/DIRECTIONAL ARROW/BI-DIRECTIONAL ARROW. These Signs indicate a sharp alignment change and can be employed to warn of impending curve or turn; they can also be used at T and Y intersections that constitute hazards. IAMM speaks of Directional and Bi-Directional Arrows. This Sign is found in IAMM 1967, US MUTCD editions. The IAMM and US

Signs are very similar though the titles differ. Older US MUTCD editions spoke of one Large Arrow with either a double arrow or a single arrow. The Signs were employed for curves and for T-intersections. New editions speak of Large Arrow Signs for both intersections and alignment. However the term for alignments has a single headed arrow. And intersections include only a double-headed Arrow.
References: IAMM 1967, US MUTCD editions

LIMITED SIGHT DISTANCE SIGN. This Sign indicates the existence of curves where visual distance for stopping is inadequate. A supplemental plate listing the speed limit can be added.
Reference: US MUTCD 1978

REVERSE CURVE, LEFT, RIGHT SIGNS. There are two forms: Right Reserve Curve Sign, and Left Reserve Curve Sign. This Sign is largely confined to the Western Hemisphere. Reverse has the same or similar meaning to "Double" in UN and LN practice. A Reverse Curve Sign indicates curves going in opposite directions and are close together.
Reference: US MUTCD editions

REVERSE TURN, LEFT, RIGHT. This Sign has two forms: Right Reserve Turn Sign or Left Reserve Turn Sign. Similar to previous Sign except that it refers to two turns or one turn and one curve. Roadway features are in close proximity.
Reference: US MUTCD editions

SHARP CURVE SIGN. Hawkin's essays on MUTCD include early US Signs. Sharp Curve is from Idaho in the 1920s. It is more the case of a variant name than a new form of horizontal road alignment Sign.
Reference: Hawkins 7-92

TRUCK ROLLOVER SIGN. A Warning Sign for vehicles with high center of gravity when travelling on curves, turns of possible risk potential.
References: US MUTCD 2003

TURN, LEFT, RIGHT SIGNS/SINGLE, LEFT, RIGHT SIGNS. Terms employed in the Western Hemisphere and also ECAFE 1964. Turns denote sharper curves.

Canada 1976 employs a Turn Sign of a less sharp design. It is positioned between Turns and Curves though it remains within the Turn configuration.
Reference: US MUTCD 1961, Canada 1976, ECAFE 1964

270 DEGREE CURVE SIGN/270-DEGREE LOOP SIGN. Two versions of one Sign appear in MUTCD. Signs of graphic design depict extreme curve such as are found in cloverleaf interchange.
Reference: US MUTCD 2003

SHARP TURN. Most older European systems included this sign which resembles a "hairpin" turn. UN 1949 has a Bend Sign of the same design.
Reference: LN 1931, UN 1949

WINDING ROAD SIGN/RIGHT WINDING ROAD SIGN/LEFT WINDING ROAD SIGN. This Sign indicates that at least three curves or turns are in close proximity for IAMM 1967. The Sign represents at least five curves for employment of the Sign in Canada and the US. Both have similar descrptions for the Sign. Both systems refer to Right Winding Road Sign and Left Winding Road Sign rather than Winding Road Sign with left and right forms. GERSS/ECAFE include the Sign within the Dangerous Curve category though there is no name for this specific form.
References: IAMM 1967, Canada 1976, US MUTCD editions, GERSS 1952,

2B3 Roadway Conditions Signs

a) Introductory Statements & Overarching Terms. It is possible to subdivide this segment of Warning Signs into many small pieces. However, numerous small fragments have limited value since the Signs less easily cohere in that state. Instead, various forms of these Signs are grouped into informal sections under the heading of Roadway Conditions. It can be debated what title this category should be given. Roadway Features would be a possible title as well as Roadway Conditions. However, Roadway Conditions is more inclusive and may more easily include both features and changes.

ROADWAY CONDITIONS SIGN.

Classification #: 4311
Form of Aid: Unlighted TCD
Operation: Messages displayed on Signboard. Visual display through color, symbols which are often graphic symbols but can include alphanumeric forms.
Comments: Term incorporates aspects of terms from Canada, IAMM and US. The following terms headed by Roadway Surface Conditions elaborates its foundations.
References: Canada 1976, IAMM 1967, US MUTCD editions

ROADWAY SURFACE CONDITIONS SIGN/SPECIAL ROADWAY FEATURES SIGN/ ROAD SURFACE PHYSICAL CONDITIONS SIGN. US 1961 employs Roadway Surface Conditions for a general name while Canada 1976 has Special Roadway Features. IAMM 1967 describes this category as "Signs -- indicating physical conditions of road's surface." Other systems often lack appropriate subdivision terms. The Database term of Roadway Conditions is an adaption of all three terms with emphasis on US 1961 and IAMM 1967.
References: US 1961, Canada 1976, IAMM 1967

b) Specific Terms

ADDED LANE SIGN. This Sign notifies motorists of the convergence of roadway without merging of traffic. The Sign displays an image of two roads converging flanked by a straight arrow and by a curved arrow that becomes straight.
Reference: US MUTCD 1988

BICYCLE SURFACE CONDITION WARNING SIGN. Sign indicates road or shared-use path situation that creates potential loss of control conditions.
Reference: US MUTCD 2000

BRIDGE ICES BEFORE ROAD SIGN. Sign indicates winter conditions before Bridge. Manitoba also includes a similar sign though under description of message instead of formal name. It displays a skidding car and thermometer accompanied by letter and number symbols.
Reference: US MUTCD 2003, Manitoba 2007

CLEARANCE/LOW CLEARANCE SIGNS/NARROW CLEARANCE SIGN/ LIMITED WIDTH SIGN. Low Clearance Signs indicate limited space overhead for vehicles especially large trucks. Limited Width and Narrow Clearance Signs indicate narrowness of driving lanes or roadway. Symbols are frequently in feet or metres within arrows indicting clearance. One or more of these Signs are found in IAMM 1967, ECAFE 1964, UN GERSS 1952, Canada 1976, US MUTCD 1961. But not in UN 1968 and older European systems. Mexico has a variant form that includes a silhouette of a truck within arrows that indicates reduced horizontal or vertical clearance. Supplemental plates give the dimensions of the limited clearance. US forms evolved from words to symbol/word forms and to supplemental plates with words. US MUTCD 1978 dropped the plates.
References: IAMM 1967, ECAFE 1964, UN GERSS 1952, Canada 1976, US MUTCD 1961

BIKEWAY NARROWS SIGNS. This US MUTCD Sign is in a word form and analogous to the Road Narrows Sign.
Reference: US MUTCD 2000, 2003

BUMPS SIGN/DIPS SIGN. These are commonly employed terms and more specific than Uneven Road or they simply replace Uneven Road. The graphic symbol for Bump often manifests a single bump. The Dip symbol can have the image of a concave despression. US MUTCD 1961 employs word inscriptions though newer editions have graphic images. A variety of systems includes these Signs.
References: US MUTCD editions, IAMM 1967, ECAFE 1967, UN GERSS 1952

CHECKERBOARD SIGNS. Terms includes a group of Signs employed in Canada. They denote end of road, major horizontal changes in alignment, and T-intersections. Some forms of the Signs include arrows while the termination form has checks without an arrow. They follow a yellow and black color scheme.
Reference: Canada 1976

CROSS-DRAIN OR DIP SIGN. The Sign is a double-sign (familiar to OBS) and the graphic appearance is closer to a Bump Sign than a Dip Sign.

Reference: CASATC 1950

DANGEROUS SHOULDER SIGN. ECE 1995 adds this Sign of a graphic representation of a tilted car with one wheel on solid and one on unstable ground.
Reference: ECE 1995

DRAW BRIDGE SIGN/HUMP BRIDGE SIGN/NARROW BRIDGE SIGN/NARROW STRUCTURE SIGN/ONE LANE BRIDGE SIGN/OPENING BRIDGE SIGN/SWING BRIDGE SIGN. This amalgamation of different kinds of Signs may overly conflate a diverse topic. UN 1968 includes the Swing Bridge Sign represented by a graphic image of a single open span. The Draw Bridge Sign displays a double span as does Canada's Opening Bridge Sign. The former is from IAMM 1967 and the later from UN GERSS 1952. Mexico has a single span representation. The Hump Bridge Sign of OBS employs the graphic symbol of the Bump Sign. Manitoba has Narrow Bridge for the Sign that Canada 1976 termed Narrow Structure

Narrow Bridge, Narrow Structure and One Lane Bridge Signs all denote narrow passageways for vehicles rather than bridges that open. Only a limited number of systems include these Signs. The US formerly employed word inscriptions while other systems displayed graphic symbols. US MUTCD 1971 added a graphic image. Mexico in IAMM 1981 has a similar Sign. Canada 1976 broadens the concept by speaking of Narrow Structure but the graphic imagery is similar to that of IAMM 1967 and UN GERSS 1952. It can refer to culverts, subways, overpasses that decrease the width of the roadway. Educational Tabs with words in Canada 1976 were a transition feature from word to graphic symbols and therefore had a temporary nature.
References: UN 1968, IAMM 1967, UN GERSS 1952, Canada 1976, US MUTCD 1971

GUTTER SIGN. LN 1926 employs this for the English-language term though the imagery is the same as that for Uneven Road in other systems. However, the French word "Cassis" in 1926 is employed in Paris 1909 along with Uneven Road as the English translation.
Reference: LN 1926

LOOSE GRAVEL SIGN. This Sign refers to situations where gravel may be thrown up by passing vehicles.
References: UN 1968, US MUTCD 1967, IAMM 1967

HILL SIGN/DANGEROUS HILL SIGN/DANGEROUS DESCENT SIGN//DANGEROUS ASCENT SIGN/DANGEROUS STEEP DESCENT TO R OR L SIGN/HILL_IN_SIGN/STEEP ASCENT SIGN/BIKE HILL SIGN. The variety of names refers to a relatively narrow range of messages. However, the range of messages can be expanded by Sign models and variants. Hill can be a unitary sign that centers on descents but it can also branch out into descent and ascent forms. UN 1968 has separate Dangerous Descent and Steep Ascent Signs. US MUTCD 1978 includes a Steep Descent for Bicycle Signs. It displays a bike on black triangle signifying a sharp descent. Canada 1985 adds a Bike Hill Sign.

A graphic symbol displaying a black triangle surmounted by an auto facing upwards or downwards is the most common form of this Sign. UN 1968 includes versions of an auto, a percentage figure, or a ratio figure. US 1961 has only a word form. Canada 1976 includes a graphic symbol with a educational tab supplement with word form; that was dropped in 1985. US MUTCD 1971 followed Canadian practice. Older systems lack any Hill Sign.
References: UN 1968, US MUTCD 1961, 1971, Canada 1976, Canada 1985

LANE ENDS SIGN. A graphic symbol Sign that marks end of Lane. The older name was Lane Reduction Sign in US MUTCD 1988. The term also is a category term that includes two other Signs:

RIGHT (LEFT) LANE ENDS SIGN. This Sign can serve as advance for the Lane Ends Signs or for the:

LANE ENDS MERGE LEFT (RIGHT) SIGN. This Sign gives an added warning or underlines the need to merge.
References: US MUTCD 2000, 2003

NO TRAFFIC SIGNS. Sign employed on low-volume roads without pavement and where Traffic Signs are lacking.
Reference: US MUTCD 2000

PAVEMENT DROP-OFF SIGN. Canada 1985 includes this Sign but apparently no other system does so. It has an orange ground, black symbols and indicates an abrupt end to the pavement edge.
Reference: Canada 1985

PAVEMENT ENDS SIGN. This Sign indicates the extent of paved road for a given route. Some newer systems include it. Canada offers a graphic symbol with an image of pavement/unpaved roadway. US MUTCD 1961 includes a word description but the 1971 editions uses a graphic representation.
References: Canada 1976, US MUTCD 1961, 1971

__% GRADE/NEXT__MILE/__% GRADE [&]__MILES SUPPLEMENTAL PLATES. These Plates can be added to Hill Signs in the US.
Reference: US MUTCD 1978

ROUGH ROAD SIGN. This Sign denotes a road in poor condition. The graphic symbol is of three or more bumps. UN GERSS 1952 includes it though UN 1968 does not.
References: UN GERSS 1952, UN 1968

ROAD NARROWS SIGN/NARROW ROAD SIGN/CARRIAGEWAY NARROWS SIGN/ PAVEMENT NARROWS SIGN/PAVEMENT-WIDTH TRANSITION SIGN/LANE REDUCTION TRANSITION SIGN. A variety of these terms refer to a closely focussed Sign type. Both UN 1949 and UN 1968 refer to Carriageway Narrows Signs. Canada 1976 refers to Pavement Narrows (Road Narrows, Road Narrows L/R in Canada 1985) while other systems employ Road Narrows. The graphic symbol is of two designs: UN GERSS 1952 and ECAFE 1964 show two thick lines wide at one end and narrow at the other which represents reduction of lanes. The more common form displays black lines outlining a road with multiple lanes that eliminates a lane in one direction. Surprizingly, the US in 1961 employed the graphic image though with rows of dashes to denote which lane kept/lost a lane. US MUTCD 1971 redesigned the Sign and dropped the dashes. US MUTCD 1978 renamed the Sign the Pavement-Width Transition Sign which is a literal description of the Aid. US MUTCD 1988

changed that name to Lane Reduction Transition Sign.US MUTCD 1961 also included a word inscription Sign under the heading of Road Narrows though that meant a road less than two-lanes in width rather than an elimination of a lane.

OBS 1950 employed one Sign form for Narrow Bridge or Road Narrows. It followed the usual double-Sign approach with a symbol identical to that of UN GERSS 1952 and ECAFE 1964. It included an appropriate word inscription. Narrow Road Sign from US MUTCD 1948 has the same meaning as Road Narrows
References: UN 1949, UN 1968, UN GERSS 1952, ECAFE 1964, US MUTCD 1961, 1971, 1988

RUNWAY TRUCK RAMP___MILES SIGN/RUNWAY TRUCK RAMP SIGN. These Signs denote escape ramps for runaway trucks on steep descents.
References: US MUTCD 1978, 1988

SAND/GRAVEL/PAVED SUPPLEMENTAL PLATES. These can be added to the above Sign.

ROAD LEADS ON TO QUAY OR RIVER BANK SIGN. This Sign indicates close proximity to water or a dangerous water situation near a driving lane.
Reference: UN 1968

ROAD NARROWS DANGEROUSLY. A term from CASATC 1950. Possibly a term similar to other Road Narrows Signs, or a Sign designating an especially narrow road.
Reference: CASATC 1950

SHOULDER SIGNS. A Sign category that includes Soft Shoulder Sign, Low Shoulder Sign and Should Drop-Off Sign.

SOFT SHOULDER SIGN. This Sign gives warning of soft shoulder conditions. It displayed a word inscription in older MUTCD editions.

LOW SHOULDER SIGN. Signs indicates that the shoulder is less than three inches below driving lane.

SHOULDER DROP-OFF SIGN. Sign denotes a shoulder that is more than three inches below driving lane.
Reference: US MUTCD editions

SPEED HUMP SIGN. Sign denotes "vertical deflection" whose function is to slow down traffic.
Reference: US MUTCD 2003

TRUCK ESCAPE RAMP SIGN. Sign is more of a category of Signs. They are placed before road grade, ramp. They include:

TRUCK ESCAPE RAMP SIGN
RUNAWAY TRUCK RAMP SIGN/RUNAWAY TRUCK RAMP ONE MILE SIGN.

A Regulatory Sign, Runaway Vehicles Only, can be added.
References: US MUTCD 2000, 2003

UNEVEN LANE SIGN. Sign for construction and maintenance areas indicating adjoining lanes are at different elevations.
Reference: US MUTCD 2000

UNEVEN ROAD. This term is a general term and can be replaced by more specific terms such as Bumps and Dips according to UN 1968. Uneven Road is represented by a graphic symbol of two bumps. Other systems have a similar term and image. The image denotes roughness in pavement, bumps, ridges, drain lines across roads and other impediments.
Reference: UN 1968

2B4 Intersections

a) Overarching Terms.

INTERSECTION SIGNS
Classification #: 4312
Type of Aid: Unlighted TCD Aid
Operation: Signboard displays appropriate messages through color, design and symbols which are often graphic.
Comments: UN 1968 employs Intersection Signs as a basic category. However, that term includes both Warning and Regulatory Intersection Signs. IAMM uses Crossing Signs as a general term.Seemingly no system uses Intersection Signs as a major category only for Warning Signs under this heading. US MUTCD speaks of various situations where Warning Signs are employed. Canada has a section for intersections amongst many other sections. The term does encompass a broad range of such Signs and is employed here.
References: Canada 1976, US MUTCD editions

INTERSECTION WARNING SIGN. An alternate term for the primary term. It is a category term that includes Side Road, T-Symbol, Y-Symbol, Traffic Circle Signs.
Reference: US MUTCD 2003

CONCEALED ROAD SIGNS/HIDDEN SIGNS, PLAQUES. Canadian term for a sub-grouping of Signs. It has the meaning of Signs not visible to motorists approaching an intersection. Manitoba and Ontario refer to Hidden Signs at least as description of the workings of those Signs and Plaques. Canada 1976 gives images but not names for members of this class. The 1985 Sign Pattern Manual provides names for some forms:

Right Angle Intersection Signs
Acute Angle Intersection Signs

References: Canada 1976, Canada 1985

CROSSING SIGN. This term has two meanings. The IAMM version refers to Signs at junctions, cross roads, crossing. US MUTCD Advance Crossing and Crossing Signs refer largely to intermittent movements of pedestrians, animals, trucks, etc. Such intrusions can be random or relatively confined. See Intermittent Moving Hazards.
References: IAMM 1967, US MUTCD editions

b) Specific Terms

CROSS ROAD SIGN/CROSS-ROAD SIGN/CROSSROAD SIGN. Term is among oldest Road Signs of any form. This Sign is found in every system past and present in some form or other. There are two basic forms: St Andrew's Cross (X) and St George's Cross (+). UN 1968 offers both models; one for the European form of Sign; one for the American model. UN GERSS 1952 provides an alternate form in which the priority road is indicated by widing the axis of the cross symbols. Older European modes have a wide symbol on black ground.
References: UN 1968, UN GERSS 1952

CROSS STREET SIGN. This historic term originates with Manual on Street Traffic Signs, Signals, and Markings in 1930. It is possibly an early term for the current Cross Roads Sign.
Reference: Hawkins 7-92

DANGEROUS FORK SIGN. This Sign - which is similar to Y Symbol Signs - displays a representation of two forks set evenly at diagonal angles from the primary road. A second form has one fork set at an diagonal angle from a second vertical arrow while a third version bears resemblance to the Merging Traffic Sign.
References: US MUTCD editions

DANGEROUS T-JUNCTION SIGN. This CASATC Sign is similar to a T-Symbol Sign. It incorporates a Double Sign form which is the practice with other Signs in the CASATC system.
Reference: CASATC 1950

DELTA SIGN. This Mexican Sign appears in IAMM 1981. It indicates an intersection that has three branches connected with the intersections thereby forming a triangular island.
Reference: IAMM 1981

DOUBLE ARROW SIGN. This Sign denotes situations where traffic can flow in one direction on both sides of traffic islands, and various obstacles. A Canadian version is in a graphic form with both arrows and representation of an object while the US version has arrows only. Manitoba describes the Sign as a Traffic Island Sign. They have a primary role though not the formal name in the US and in Canada.
References: Canada 1976, US MUTCD 1961 and newer editions, Manitoba 2007

MERGE/MERGING TRAFFIC SIGN. This Sign indicates convergence of roadways rather than the intersection of roadways that remains separate and distinct. The symbol displays a vertical bar capped by an arrow head with a second bar converging at a diagonal angle. The Sign is seemingly confined to the Western Hemisphere. US MUTCD 1961 has a word form while the 1971 changed to graphic symbols.
References: US MUTCD 1961, 1971, IAMM 1967, Canada 1976

ROAD INTERSECTION SIGN. This Sign appears to represent an overarching category but instead it represents a single Sign in UN 1949. It is the only form of Intersection Sign other than the Roundabout Sign for that system. The Sign displays a St. Andrew's Cross.
Reference: UN 1968

ROAD IN WHICH ANOTHER ROAD ENDS AT A JUNCTION SIGN. This lengthly title from LN 1939 is similar to a Side Road Sign.
Reference: LN 1939

ROAD JUNCTION SIGN/ROAD JUNCTIONS SIGN. These Signs also give the sense of a general category but instead they refer to a single Sign. The first term is in a single form approximating the Side Road Sign while the second is similar to

IAMM 1967's Successive Tee Sign. Both are of the Double Sign format.
References: OBS 1950, IAMM 1967

SIDE ROAD SIGN. This Sign denotes the intersection of a secondary road with the primary road. The graphic symbols consist of a black horizontal bar attached to a vertical bar; it has right and left versions. A variety of systems include the Sign. UN GERSS 1952 includes the sign though without naming it.
References: Canada 1976, US MUTCD 1961, LN 1939, UN 1968, ECAFE 1964,

SIGNAL AHEAD SIGN. This Sign is from Canada 1985 indicates that motorists should be prepared to stop. The Sign is flanked by Flashing Beacons. The Sign can also be mounted with Beacons on a large background board, or Sign and Beacons can be free-standing.
Reference: Canada 1985

STOP SIGN AHEAD SIGN/STOP AHEAD SIGN. This Sign indicates the nearness of a Stop Sign when there is limited-sight distance. It uses include an intersection where many accidents have occurred. The US 1961 version is in a word inscription format while newer editions include a graphic symbol of a Stop on the Stop Ahead Sign accompanied by an arrow. IAMM 1967 and 1981 have a word form and supplemental plate with distance to Stop Sign; Mexico instead has a graphic representation of a Stop Sign and arrow.
References: IAMM 1967, Canada 1976, US MUTCD 1961 and newer editions, UN GERSS 1952

SUCCESSIVE TEES SIGN. This Sign displays two side roads branching off on opposite sides of a primary road in relatively close proximity but not directly across from each other. The focus of this Sign is similar to Signs for T-shaped intersections though slightly separated. UN 1968 includes a similar Sign but unnamed.
Reference: IAMM 1967, UN 1968

"T" SIGN/T INTERSECTION SIGN/T-INTERSECTION SIGN/T-SYMBOL SIGN. This Sign, in the form of a "T", indicates an intersection where a left turn or a right turn is necessary. Canada 1976 adds the word "Intersection." Other

systems, including IAMM 1967, include the Sign.
Reference: Canada 1976, IAMM 1967, US MUTCD 2003

TRAFFIC CIRCLE SIGN/ROUNDABOUT SIGN. These Signs indicate the approach of a circular or rotrary junction. The graphic symbol displays three curved arrows arranged in a circular pattern The term Traffic Circle Sign is supplied by IAMM 1967. The same Sign is known as an Roundabout for UN 1968 and OBS 1950.
Reference: IAMM 1967, UN 1968, OBS 1950

TWO-DIRECTION ARROW SIGN. This Sign is an Intersection Sign and is employed at T-Intersections. Newer US MUTCD editions contain both single and double arrow under the heading of Large Arrow Sign but in different categories.
References: US MUTCD 1988, 2000, 2003

"Y" SIGN/Y INTERSECTION SIGN/Y-INTERSECTION SIGN/Y-SYMBOL SIGN. This sign indicates a change in direction is required; the change is diagonal rather than a sharp turn to right or left. The symbol has the appearance of the letter "Y". ECAFE 1964 and UN GERSS 1952 include the Sign though without a name. Canada 1975 adds the word "Intersection" to the Sign. The addition of "Symbol" is from the US.
Reference: ECAFE 1964, UN GERSS 1952, Canada 1976, US MUTCD 2000

YIELD AHEAD SIGN. The rationale for this Sign is similar to that of the Stop Ahead Sign: it is employed where there is too little visibility to see the intersection except at close range. The US MUTCD 1961 form is in a word inscription formt but newer editions contain a graphic symbol of a Yield Sign on the Yield Ahead Sign. This Sign is also found in Canada.
Reference: US MUTCD 1961, Canada 1985

2B5 Intermittent Moving Hazards Signs

INTERMITTENT MOVING HAZARDS SIGNS
Classification #: 4313
Type of Aid: Unlighted TCD Aid.

Operation. Visual Signboards display appropriate messages through color, design and symbols.
Comments: This term is from Canada 1976. Moving Hazards include pedestrians, school children, trains, and inanimate moving objects (including road surfaces that are slippery because of moisture and falling rocks). No other system has this category though some systems may include parts of it. There is a substantial merit in the Canadian approach and it is adopted/ adapted for the Database.
References: Canada 1976

ADVANCE CROSSING SIGN/CROSSING SIGN. US MUTCD 1978 distinguishes between Crossings and Advance Crossings. Advance Crossing indicates irregular entry onto a roadway by cyclists, animals, etc. Crossing Signs include double lines with graphic images indicating actual crossing. That is especially the case at human crossings.
Reference: US MUTCD 1978

ADVANCE SCHOOL WARNING SIGN. Sign serves as an Advance Sign for School Crossing Sign.
Reference: US MUTCD 2000

BEWARE OF ANIMALS SIGN. Animal-related Signs are found with only a few systems. However, more modern systems often include animal-related Signs: UN 1968, ECAFE 1964, and Western Hemisphere system. National codes may contain Signs missing from international codes. However, this first of the animal Signs is found only in ECAFE 1964. In most instances UN GERSS 1952 is the repository of Signs found in ECAFE though not in this case. The ECAFE 1964 representation is difficult to identify. It is perhaps a composite of several animals or possibly a water buffalo.
References: UN 1968, ECAFE 1964, UN GERSS 1952

BICYCLE CROSSING WARNING SIGN/CYCLISTS ENTERING OR CROSSING SIGN. These Signs denote bicycles crossing, entering a roadway. The Canadian version displays a bicycle without rider. US MUTCD 1971 has a similar Sign. The second Sign, from UN 1968, has a rider on bicycle; but as is often the case the rider is male. IAMM 1967 has an apparently unisex figure on a

bicycle.
References: US MUTCD 1971, Canada 1976, UN 1968, IAMM 1967

CATTLE OR OTHER ANIMAL CROSSING SIGN. This Sign has two versions for UN 1968: a domestic animal which may be a cow (though a quite stout cow), and a wild animal which may be a deer, stag, or similar beast.
Reference: UN 1968

CATTLE CROSSING SIGN. This Sign in IAMM 1967 bears a strong resemblance to the previous Sign from UN 1968. US MUTCD 1961 includes this Sign in word form; newer editions have graphic representations. Canada 1985 also includes this Sign.
References: IAMM 1967, UN 1968, US MUTCD 1961, Canada 1971

CHILDREN SIGN. A variety of systems with Children Signs lack School Signs (or vice versa). Apparently only IAMM 1967 has both. Children Signs refer to playround rather than school areas.
Reference: IAMM 1967

CONGESTION SIGN. This ECE 1995 Sign indicates areas of serious traffic congestion. It displays an illustration of three cars in close proximity.
Reference: ECE 1995

CROSS WALK SIGN. This Sign designates a cross walk rather than a pedestrian crossing though the two forms overlaps.
Reference: US MUTCD 1961

CROSSING NO GATES/GATES OR LEVEL CROSSING BARRIER/
LEVEL CROSSING WITH BARRIER/LEVEL CROSSING UNGUARDED/
LEVEL CROSSING/GUARDED LEVEL CROSSING/LEVEL CROSSING
GUARDED BY GATES/LEVEL CROSSING WARNING CROSS/
LEVEL CROSSING STOP SIGN/UNGUARDED LEVEL CROSSING/
UNGUARDED LEVEL-CROSSING/LEVEL-CROSSING WITH GATES/
LEVEL-CROSSING WITHOUT GATES/RAILWAY ADVANCE WARNING/
RAILWAY CROSS-BUCK SIGN/UNPROTECTED RAILROAD-CROSSING/

PROTECTED RAILROAD CROSSING. Signs dealing with railway/-road/level-crossings are among the most common Warning Signs and included by all systems. Frequently these forms of Signs are a subdivision in themselves. Level-crossing is the preferred term in European practice and systems so influenced. There are a great many Sign terms in this group yet they refer to a relatively narrow range of messages thereby creating a considerable coherence. Railroad Advance Warning Signs in US MUTCD 1961 and newer editions are black on yellow with St. Andrew's Cross. Hawkins includes a Railroad Sign from ASSHO 1927 which displays a Saint George Cross (+).

Signs for Railway Crossings with gates only display a representation of a gate. Those lacking gates frequently display a picture of a locomotive or a section of track imposed on a St. Andrew's Cross. The US displays that cross accompanied by the letter "R" flanking the Cross; Ecuador also follows this practice. Cross Buck Signs are often a St. Andrew's Cross rather than a representation embossed on a Sign plate. US MUTCD 1971 moved Railway Crossbuck Signs to the Regulatory category from the Warning category.
References: US MUTCD editions, Hawkings 7-92, IAMM 1981, UN 1968

DEER CROSSING SIGN. Signs under this title are found in IAMM 1967 and US MUTCD 1961. IAMM employs a graphic representation very similar to that of the second Sign of UN 1968 (Cattle Crossing or Other Animal Crossing Sign). US MUTCD 1961 uses words though a graphic image is included in the 1971 edition. Canada 1985 also includes this Sign.
Reference: IAMM 1967, US MUTCD 1961, 1971, UN 1968

FARM MACHINERY SIGN. This Sign indicates places where farm machinery may be present on the road or crossing a road. The graphic representation is of a tractor with farm.

GRADE CROSSING SIGNS
Classification #: 4315
Type of Aid: Unlighted TCD
Operation: Signboard display messages according to established patterns.
Comments: These Signs are in the Intermittent Moving Hazards category.

However, the Classification lists them separately because TCDs for railway crossings constitute a special situation. A different approach to classification may have brought together all forms of Crossing Aids though this approach divides forms according to character of Device. The several forms are a major group though separated.
References: IAMM 1967, US MUTCD 1971

FALLEN ROCK SIGNS/FALLING ROCK OR LANDSLIDES SIGN. This and other Signs for inanimate objects may be regarded as relating to road conditions or possibly other hazards. However, they represent an off-and-on situation not directly tied to road-related situations. Signs with Graphic symbol display rock formations with pieces of rocks breaking loose. US MUTCD 1961 has a word inscription form while newer editions have a graphic form.
References: UN 1968, Canada 1976, US MUTCD 1961 and newer editions

HAZARDOUS CONDITION SIGN. This Sign from US MUTCD 1978 refers to bicycles. It displays a bicycle at a angle with curved line accompanying it. The format is similar to that of the Slippery When Wet Sign. A Supplemental Plate can have one of several messages including Slippery When Wet, Steel Deck, Rough Pavement, Ford, Bridge Joint.
Reference: US MUTCD 1978

HIGH WATER SIGN. This Sign may fit better in Other Hazards or Road Conditions. Yet the experience of fast rising water strongly suggests the Intermittent Moving Hazards category. Seemingly only the US includes this Sign. US MUTCD 1961 includes a listing of Other Warning Signs though without pictures
Reference: US MUTCD 1961

LOW GROUND CLEARANCE PLAQUE. Sign indicates road conditions that may cause trucks and trailers with long wheel base to become hung-up. This is a graphic symbol Sign. A Plaque in words can be added as an educational effort for a period of time.
Reference: US MUTCD 2003

MOOSE CROSSING SIGN. Canada 1985 appropriately adds a Moose Crossing

Sign displaying a great beast with dramatic antlers.
Reference: Canada 1985

MOTORIZED TRAFFIC SIGN. A US MUTCD 2000 term that became Vehicular Traffic Sign in 2003 which see.
Reference: US MUTCD 2003

NO SIGNAL SIGN. A Sign posted at railroad crossings that indicates Signals are absent from crossing.
Reference: US MUTCD 2003

NO TRAIN HORN SIGN. Sign indicates that trains have authorization to not sound horn at crossing.
Reference: US MUTCD 2000

PEDESTRIAN CROSSING AHEAD SIGN/PEDESTRIAN CROSSING SIGN/ PEDESTRIAN CROSSWALK SIGN.. A Sign found in many systems. A single adult figure -- nearly always male -- is displayed between lines for UN 1968; some systems include one line and others no lines. US MUTCD 1961 retained word inscriptions for this Sign. Newer editions changed to graphic forms. Canada 1985 replaced older forms with pictographs.
References: US MUTCD 1961, UN 1968, Canada 1976, 1985, ECAFE 1964

PLAYGROUND AHEAD SIGN/PLAYGROUND SIGN. Few systems include these Signs. Canada 1976 includes a representation similar to that of IAMM 1967 (for the Children Sign) though the Sign refers to a playground situation. In newer editions of US MUTCD representation of a teeter-totter with pictograph figures.
Reference: Canada 1976, IAMM 1967, US MUTCD 2000, 2003

PREPARE TO STOP SIGN. This Manitoba Sign incorporates words, graphics and flashing lights for this Warning Sign. It gives advance warning of a Stop Sign.
Reference: Manitoba 2007

RAILROAD SIGN/RAILWAY/LEVEL CROSSING SIGNS. Basic terms for

Crossing Signs. Systems employ a variety of terms for similar Signs.
Reference, Part Iii, lst edition

RANGE CATTLE SIGN. This Sign appears in US MUTCD 1961. It is one of a series of Other Warning Signs. No representation is included.
Reference: US MUTCD 1961

RESERVED BUS LANE SIGN/RESERVED LANE SIGN. Manitoba has several Signs for Lane-Use Control that are of a Warning configuration. These are absent from Canada 1976.
Reference: Manitoba 2007

SCHOOL BUS STOP AHEAD SIGN. This Sign provides advance notice of school bus stops where there is limited site distance. Word message format is employed in US MUTCD 1971 and 1978 editions. Canada 1985 displays a silhouette of a bus with flashing light and pedestrians in pictograph forms.
References: Canada 1985, US MUTCD 1971, 1978

SCHOOL CROSSING WARNING ASSEMBLY/SCHOOL CROSSING SIGN. It consists of School Advance Warning Sign and Diagonal Arrow Plaque that displays downward pointing diagonal arrow. The Assembly marks crosswalk at or near school. Ontario School Crossing Sign and Advance Sign display white symbols on blue ground. This is in contrast to Signs employing flourescent yellow.
Reference: US MUTCD 2003, Ontario 2003

SCHOOL CROSSWALK SIGN. Canada 1985 displays pictographs of two people over a horizontal line. An older version of this Sign had a large "X" and the word School.
Reference: Canada 1985

SCHOOL SIGN/SCHOOL AHEAD SIGN/SCHOOL CROSSING SIGN/ SCHOOL ZONE SIGN. These Signs display great diversity. The Canadian School Ahead Sign is pentagonal shaped with white rim, blue ground and white figures. Canada 1985 replaces old figures of humans with pictographs. The US

MUTCD 1971 School Advance Sign has a pentagonal-shaped black symbols on a yellow ground. The School Crossing Sign is similar but with lines added indicating a crosswalk. IAMM 1967 has a diamond-shaped sign with two non-descript children embossed on it. ECAFE 1964 and UN GERSS 1952 display two children with the male child the larger of the two. UN 1968 has a similar pattern.
References: Canada 1985, IAMM 1967, UN GERSS 1952, UN 1968

SCHOOL SPEED LIMITS SIGN. This is a partially Warning Sign and a partially Regulatory Sign. The word school in black and yellow is attached to Speed Sign or becomes an integral part of a School Speed Sign.
References: US MUTCD 1971 and newer editions

SLIPPERY WHEN WET-BICYCLE PATH SIGN. This Sign displays a bike with skid marks.
Reference: Canada 1985

SLIPPERY WHEN WET SIGN/SLIPPERY ROAD SIGN. This Sign denotes hazardous road during rain and other conditions. The graphic symbols can include an auto at an angle followed by lines representing skid marks. This Sign can also fit into other categories including the Road Conditions category. US MUTCD 1961 displayed word forms while newer editions have graphic forms.
References: Canada 1976, UN GERSS 1952, ECAFE 1964, US MUTCD 1961 and newer editions

SNOWMOBILE CROSSING SIGN. This Sign displays a silhouette of a snowmobile next to a graphic design of a crossing zone.
Reference: Canada 1985

SNOWMOBILE SIGN. This Sign is listed with Nonvehicular Signs which warn of situations in which unexpected intrusions into roadways may occur. Other forms involve pedestrians and animals. Yet the snowmobile is a form of vehicle.
Reference: US MUTCD 2003

STORAGE SPACE SIGN. Sign is found between road intersections and railroad crossings and indicates available space for storage of vehicles. A graphic symbol

Sign can be supplemented by Signs with word messages.
Reference: US MUTCD 2003

TRAIN MAY EXCEED 130 KMH (80 MPH) SIGN. Sign indicates when this speed is permitted. Sign posted between Advance Warning Sign and crossing.
Reference: US MUTCD 2003

TRUCK CROSSING SIGN/TRUCK ENTRANCE SIGN, RIGHT, LEFT. These Signs indicate where trucks cross a road or enter a road. These Signs appears to be confined to US MUTCD editions and Canada. The Canadian Truck Entrance Sign displays a truck next to a segment of road. One version has the truck to the left of the road representation while the truck is to the right in the second form. US MUTCD 1961 lacks a representation of the Truck Crossing Sign. Newer editions include a graphic representation in the Construction and Maintenance category (which is an older term in US though current in Canada).
References: Canada 1976, US MUTCD 1961 and newer editions

USE SECOND GEAR SIGN/USE LOWER GEAR SIGN/TRUCKS USE LOWER GEAR SIGN. These Signs refer to truck operations on steep slopes.
References: US MUTCD 1971 and newer editions.

VEHICULAR TRAFFIC SIGNS. These Signs indicate possible intrusion by specialized forms of vehicles. US MUTCD 2003 presents images of Signs without labels:

GOLF CART SIGN
BICYCLIST SIGN
FARM VEHICLES
EMERGENCY VEHICLES
HORSE-DRAWN VEHICLES
TRUCK CROSSING SIGN. Includes word and graphic symbol forms.

2B6 Construction & Maintenance Signs

General Note. It can be debated whether or not this segment is needed since most systems have a single Road Works Sign. However, at least two systems, Canada

and the US have many Signs of this sort and the segment therefore is needed. Both unitary Road Work Signs as well as the expanded Signs of those two systems are included. Wainright 2005 notes that signs with orange ground for work areas, etc are employed by an increasing number of nations. This suggests greater significance for C and M, Temporary TCD and allied categories.

CONSTRUCTION & MAINTENANCE SIGNS.
Classification #: 4314
Form of Aid: Unlighted TCD Aid
Operation: Visual Signboards display messages of color, design, graphic symbols.
Comments: Older US MUTCD editions included a major segment under this heading. That has been changed to Temporary TCDs. Canada has a similar heading. However, the older heading continues to have value and is employed as the general heading here.
References: US MUTCD editions, Canada 1976

ADVANCE ROAD (STREET) CONSTRUCTION SIGN. A Sign that is posted in advance of the beginning of construction, detours.
Reference: US MUTCD 1988

ADVANCE CLOSED SIGN. There are two forms of this Sign: Road (Street) Closed ( ) Feet or ( ) Miles.
Reference: US MUTCD 1988

ADVANCE ONE LANE ROAD SIGN. Sign for construction and other situations in advance of the lane change.
Reference: US MUTCD 1988

ADVANCE LANE CLOSED SIGN. Sign is positioned before a lane is closed. There are two versions: one indicating distance in feet, one in miles.
Reference: US MUTCD 1988

ADVANCE DETOUR SIGN. An temporary use Sign employed before detours.
Reference: US MUTCD 1988

BLASTING ZONE XXX FEET SIGN/TURN OFF 2-WAY RADIO SIGN/END BLASTING ZONE SIGN. The first Sign is an advance Sign for work site using explosives. The next two Signs are sequential with the first.
Reference: US MUTCD 1988

ROAD WORK SIGN/ROAD WORKS SIGN. This general purpose Sign is the only Construc-tion & Maintenance Sign for a variety of systems. It warns of the approach of a road work area. It is found in UN 1949 and UN 1968, UN GERSS 1952 and ECAFE 1964. Canada 1976 speaks of Road Work instead of Road Works. Canada's version has a pictograph character to it while other versions bear a more literal resemblance to the human form. UN GERSS 1952 is akin to the Canadian version though a variant design. The Road Repairs Ahead Sign of IAMM 1967 is similar.
Reference: UN 1949, UN 1968, UN GERSS 1952, Canada 1976

ROAD WORK AHEAD SIGN/ROAD WORK _SIGN. The first Sign is from US MUTCD 1961. It is an Advance Sign in yellow with black symbols. 1971 edition had a Sign in orange on black ground indicating mileage and omits "Ahead."
References: US MUTCD 1961, 1971

ROAD REPAIRS AHEAD SIGN. This Sign is similar to the Road Work Ahead though the graphic representation is somewhat different. Mexico has a variant form of the IAMM Sign in IAMM 1981.
Reference: IAMM 1981

The US has a broad range of Construction and Maintenance Signs (referred to as Tempoary TCD in newer editions) These Signs include:

> ROAD CONSTRUCTION ... FEET SIGN/DETOUR AHEAD SIGN/ ROAD [STREET] CLOSED ... FEET/ONE LANE ROAD ... FEET SIGN/ MEN WORKING SIGN/FRESH OIL SIGN/ROAD MACHINERY AHEAD SIGN/SHOULDER WORK AHEAD SIGN/SURVEY [CREW] PARTY SIGN/FLAGGER SIGN/FLAGMAN ... FEET SIGN/LEFT [RIGHT] LANE CLOSED [AHEAD] SIGN/SINGLE LANE ... FEET SIGN/ WORKER SIGN/WORKERS SIGN/BLASTING ZONE__FEET SIGN/

OFF 2-WAY RADIO SIGN/END BLASTING ZONE SIGN/
END CONSTRUCTION SIGN/PILOT CAR CAR FOLLOW ME SIGN.
Reference: US MUTCD editions

Canada also has a variety of Signs in this category which is termed Temporary Conditions & Developments. Symbols consist of pictographs of person, flag and survey equipment. These Signs include:

ROADSIDE DIVERSION SIGN/DETOUR SIGN /FLAGMAN SIGN/
SURVEY CREW/TRUCK ENTRANCE SIGNS.

CONSTRUCTION APPROACHING WARNING SIGN. A Sign that gives additional advance warning when specific obstruction has "limited sight distance."
Reference: US MUTCD 1988

TEMPORARY TCD/TEMPORARY TCD ZONE DEVICES. Such Devices are employed in road/street construction, maintenance, utility and "incident management operations." They include Signs but also other TCD forms.
Reference: US MUTCD 2000

TEMPORARY TCD SIGNS. Signs employed in temporary situations such as construction and maintenance. Signs have black symbols on orange ground. Flourescent red-orange or yellow-orange ground are permitted.
Reference: US MUTCD 2003

2B7 Other Hazards Signs

General Note. This segment contains two groups of Signs: a) General or Alternative Danger Signs that are present in numerous systems, and b) miscellaneous forms found in one or, at most, a few other systems.

a) General or Alternative Danger Signs

General Note. European systems have had two general purpose Danger Signs. One form continues to this day and displays a ! That form is termed General

Danger Sign or an equivalent title. The other form is a hollow Sign and associated with LN forms. There are three members of this group:

ALTERNATE GENERAL DANGER SIGN. The General Danger Sign bears this title in LN 1928. It is hollow in order to be usable in severe climatic conditions. LN 1926 has the same Sign where it is referred to as a Hollow Sign.
References: LN 1926, LN 1928

ALTERNATIVE SIGN. LN 1931 employs this title for the hollow Sign. "[A]tmospheric conditions" dictate the use of the hollow Sign.
Reference: LN 1931

DANGERS OTHER THAN THOSE INDICATED BY SIGNS 1-6 BIS. An awkwardly termed Sign. LN 1939 includes this Sign which has the standard shape and color. It displays a broad vertical bar which is termed an "exclamation mark" though it lacks the usual period. UN 1968 (Other Dangers) has a similar Sign with a conventional exclamation point. LN 1931 describes the graphic symbol as a vertical bar instead of an exclamation mark.
Reference: LN 1939

GENERAL DANGER SIGN. LN 1939 includes the red hollow triangle Sign under this title. No mention of climatic factors in the accompanying description. It can serve as a substitute for the Other Danger Signs. A supplemental plate illustrates or describes the actual danger.
References: LN 1926, LN 1928

PELIGRO SIGN. This Sign from Chile can be translated as Danger. It is used to advise the driver of the existence of some danger arising from problem or difficiency in the road: different levels of pavement, water drains, chuck holes, etc. It displays the normal warning shape of a diamond with yellow ground, and black dashes forming an octagon. It seems to be a type of general purpose or miscellaneous Danger Sign suggesting older European Signs .
Reference: IAMM 1981

OTHER DANGERS SIGN. A Sign under this heading is found in UN 1949 and

UN 1968. The 1949 version has a vertical bar while the 1968 form has an exclamation point.
References: UN 1949, UN 1968

b) Miscellaneous Forms

ADDITIONAL PANELS. UN 1968 and ECE 1995 include a number of Panels including two for Warning Signs. These Panels are seemingly akin to Supplemental Panels in the US. One indicates the distance to a Warning Sign while the other indicates the length of roadway to which the Sign refers. Both are rectangular in shape with black letters and numbers on white ground.
References: UN 1968, ECE 1995

ADVANCE TRAFFIC CONTROL SIGNS. Category of Signs that are employed when a "primary traffic control device" can not be seen for an adquate distance by the user. They include:

STOP AHEAD SIGN
YIELD AHEAD SIGN
SIGNAL AHEAD SIGN

References: US MUTCD 2000, 2003

ADVISORY EXIT SPEED SIGN. This Sign indicates exit speed when road conditions and other factors require notification of the recommended speed. The Sign follows the standard Warning Sign colors of black on yellow. Word messages list the exit and speed limit, or ramp and speed limit.
Reference: US MUTCD and newer editions

AIRFIELD SIGN/AIRPLANE SIGN. These Signs indicate an airport or low-flying planes. UN 1968 includes the first Sign under Airfield with a representation of a commercial plane that refers to low-flying planes. IAMM 1967 employs the term Airplane which refers to an airport or to planes. An Airport Sign can also be found in Regulatory Signs.
References: UN 1968, IAMM 1967

BE PREPARED TO STOP SIGN. Sign employed to indicate traffic stopped by Traffic Signal; areas experiencing frequent congestion can also be marked by the Sign.
References: US MUTCD 2000, 2003

BRIDLE PATH SIGN. A Miscellaneous Sign for US MUTCD 1961. It is part of the Other Warning Signs list that lacks visual representations.
Reference: US MUTCD 1961

CHEVRON/CHEVRON ALIGNMENT SIGN. This Sign consists of rectangular shaped panels with each displaying a single large black chevron on yellow ground. It can replace or supplement the Large Arrow Sign. The Chevron gives additional warnings of change in road alignment.
Referemces: US MUTCD editions, Canada 1985

CROSS-WIND SIGN. This Sign found in UN 1968 displays a representation of an airport wind-sock. IAMM 1967 has a version displaying a palm tree in full gale indicating strong side winds.
Reference: UN 1968, IAMM 1967

DEAD END SIGN/NO OUTLET SIGN. These Signs warn of a street lacking an outlet save the point of entry.
Reference: US MUTCD 1971

DIVIDED HIGHWAY AHEAD SIGN. Canada 1985 includes this Sign which displays a vertical black bar representing a highway intersected by horizontal bars with arrow heads pointing left and right.
Reference: Canada 1985

DIVIDED HIGHWAY SIGN/DIVIDED HIGHWAY (ROAD) SIGN. This Sign indicates the beginning of a section of highway divided by a barrier. An older version in the US had a word message while a new version displays a graphic symbo indicating the highway is to become divided. For a time a Supplemental Plate with a word inscription was retained. Other systems also have the Sign in graphic form.

References: US MUTCD edition, IAMM 1967, Canada 1976

DIVIDED HIGHWAY ENDS SIGN. This Sign announces the end of a divided road. US MUTCD 1971 included a word form which was dropped in favor of a graphic form in newer editions. Other Western Hemisphere systems include such a Sign. The Sign displays a reverse symbol of the Divided Highway Sign.
References: US MUTCD editions, IAMM 1967, Canada 1976

EXIT SIGN. This Sign is listed in US MUTCD 1961 within the Miscellaney category. There is no illustration. The Sign appears in newer editions of US MUTCD as an Exit Only Sign. It is a Warning Sign in 1961 but appears in the Regulatory category in US MUTCD 1971and newer editions.
References: US MUTCD 1961, 1971, newer editions

FACTORY ENTRANCE SIGN. This Sign appears in US MUTCD 1961 as an example of a Miscellaneous Warning Sign. There is no representation.
Reference: US MUTCD 1961

NO PASSING ZONE SIGN. This Sign indicates a No-Passing Zone marked by Pavement Markings. The Sign is pennant-shape (triangle with one point horizontal) with word inscription.
References: US MUTCD 1978, 1988

NOTICE BOARDS. Noble 1946 includes this Sign which apparently refers to private Traffic Signs in the 19th century. The uses include caution (meaning danger) Signs at sharp curves, hills by cycling groups.
Reference: Noble 1946

RAMP SPEED SIGN. Sign indicates recommended speed. It is a form of Advisory Speed Sign.
Reference: US MUTCD 2003

ROAD DIVERSION SIGN. This Sign can be regarded as a road detour Sign though under a different name. It contains a graphic representation of a road detour route.

Reference: ECAFE 1964

RULES OF ROAD SIGN. This Sign indicates which side of the road motor vehicles travels on for a given country. ECAFE 1964 includes this Sign in three formats: Keep Right, Keep Left and Move to Right versions. The Signs are positioned at the borders of a nation.
Reference: ECAFE 1964

SNOWFLAKES SIGN. ECE 1995 includes this Sign with Additional Panels section. It indicates ice or snow conditions that create slippery road conditions. The sign is black on white. It is not clear why the Sign is a Regulatory Sign in Additional Panels. It is similar to the Slippery When Wet Sign, a Warning Sign in various systems.
Reference: ECE 1995

SPEED HUMP SIGN. In transportation parlance this Sign denotes a "vertical deflection" whose function is to slow down traffic.
Reference: US MUTCD 2003

SPEED REDUCTION SIGN. Sign warns of upcoming lowered speed limits.
Reference: US MUTCD 2003

TEMPORARY TWO-WAY AHEAD SIGN. IAMM 1967 alone includes this Sign. It can be contrasted with Signs indicating permanent two-traffic situations. Two-Way Traffic and Two-Way Traffic Ahead for Canada and the US are in the Regulatory category (though the US MUTCD 1971 edition included the Two-Way Sign as a Warning Sign).
Reference: IAMM 1967, US MUTCD 1971

TWO-WAY TRAFFIC SIGN. Sign indicates change fron one-way to two-way roads. It can be installed on two-way roads at intervals to remind motorists it is a two-way route.
Reference: US MUTCD 1988

UNEVEN TRACKS SIGN. This is listed in US MUTCD 1961 without

explanation. It is listed in Other Warning signs none of whom are described. Newer editions of US MUTCD do not mention it. The Rough Road Sign may be similar to it.
Reference: US MUTCD 1961

c) Supplemental Plates/Plaques

ADVANCE STREET NAME PLAQUE. Plaque can be added to Intersection or Advance Traffic Control Signs thereby provide name of intersecting street.
Reference: US MUTCD 2000

ADVISORY SPEED PLATE. This is a Warning Sign not a Regulatory Sign. It accompanies appropriate Warning Signs where speed reduction is needed.
Reference: US MUTCD 1961 and newer editions.

CROSS TRAFFIC DOES NOT STOP PLAQUE. Plaque employed before Stop Sign for two-way stop-controlled intersection to indicate it is not a four-way or all-way stop. If affixed Stop Sign it has black symbols on white ground instead of black on yellow.
Reference: US MUTCD 2003

DEAD END PLAQUES/NO OUTLET PLAQUES. Plaques listed in US MUTCD 2000 but not the 2003 edition. They are added to Street Name Signs and indicate that ends in a dead end or there is no outlet save the entering route. Dead End and No Outlet Signs also are in use.
Reference: US MUTCD 2000

DISTANCE PLAQUE/NEXT DISTANCE PLAQUE/DISTANCE AHEAD PLAQUE. Distance Plaque includes the next two terms: Distance Ahead Plaque gives the distance of a condition noted by accompanying Warning Sign. Next Distance Plaque indicates the length of the condition indicated.
References: US MUTCD 2000, 2003

EMERGENCY VEHICLE SIGN/EMERGENCY SIGNAL AHEAD PLAQUE. The Sign indicates proximity of emergency facility. The Plaque denotes Signal

when in use.
Reference: US MUTCD 2003

HIGH-OCCUPANCY VEHICLE PLAQUE. Plaque attached to a Warning when a condition affecting the HOV lane is involved.
Reference: US MUTCD 2003

HILL-RELATED PLAQUE. A category which includes several forms of Signs including Distance Plaques, Use Low Gear, Trucks Use Lower Gear, 9% Grade, 9% XX Miles which see.
Reference: US MUTCD 2003

NO OUTLET PLAQUE. Employed with Street Sign to indicate no other exit from street.
Reference: US MUTCD 2000, 2003

PHOTO ENFORCED PLAQUE. Plaque indicates that regulations are enforced by a camera. When attached to a Warning Sign the Sign has black symbols and borders on yellow ground.
Reference: US MUTCD 2003

SHARE THE ROAD PLAQUE. PLaque warns Motor Vehicle Operators of slower means of transportation on road including bikes, golf carts, farm machinery.
Reference: US MUTCD 2000

SUPPLEMENTAL ARROW PLAQUES. These plaques are added to Warning Signs on an intersecting road when intersection and traffic condition are too close together to denote situation. There are three forms:

ADVANCE ARROW PLAQUE
DIAGONAL ARROW PLAQUE.
DIRECTIONAL ARROW PLAQUE

Reference: US MUTCD 2000, 2003

SUPPLEMENTAL PLAQUES. Plaques supply added information to that of the

accompanying Sign. Color pattern is that of the parent Sign. Plaques are square or rectangular.
References: US MUTCD 2003

TRAFFIC CIRCLE PLAQUE. Plaque added to Circular Intersection Sign; it gives advance notice of that Sign.
Reference: US MUTCD 2003

TRUCK USE LOWER GEAR PLAQUE. One of several Hill-Related Plaques. Provides information for truck operators in hilly areas.
Reference: US MUTCD 2000

CHAPTER THREE

REGULATORY SIGNS

1A Indexes

1A1 Category Index

Do Not Enter Sign
Except Buses & Cyclists Plaques
Direction Prohibited Sign
Closed to all Vehicles in Both Directions Sign/Closed to all Vehicle Signs
Wrong Way Sign

2) Exclusion Categories of Vehicle Signs
No Entry for Any Power Drive Vehicle Except Two-Wheeled Motor-Cycles Without Side-Car Sign/... Motor Cycles Sign/... Mopeds Sign/ ... Good Vehicles Sign/... Any Power Driven Vehicle Drawing a Trailer Other Than a Semi-Trailer or a Single Axle Trailer Sign/ ... For Pedestrians Sign/... For Animal-Drawn Vehicles Sign/ .... For Handcarts/... Power Driven Agricultural Vehicles Sign/ ... Vehicles Carrying Dangerous Goods for Which Special Sign Plating is Prescribed Sign
No Entry for Goods-Carrying Vehicle Sign/No Entry for Motor Vehicles Sign/No Entry for Bicycles Sign
Motor Traffic Prohibited Sign/Motor Lorries Prohibited Sign/Cycling Prohibited/Motorcycling Prohibited Sign/Riding Horses Prohibited Sign
No Trucks Sign/No Passengers Cars Sign/No Animal-Drawn Carts Sign/No Bicycles Sign/No Farm Machinery Sign
No Motor Vehicles Sign/No Truck Sign/Trucks Excluded Sign/ Commercial Vehicles Excluded Sign/Pedestrians Excluded Sign/ Vehicles with Lugs Prohibited Sign/Commercial Vehicles with Lugs Excluded Sign/Pedestrians and Bicycles Prohibited Sign/No Bicycles Sign/Bikes, Trucks, Motorcycles Prohibited Sign
Play Street: Prohibited All Vehicles__To__Unless Calling at Premises in the Street Sign
Selective Exclusion Sign
Traffic Prohibition Sign

3) Vehicular Exclusion: Weight, Height and Length Signs
No Entry for Vehicles Having an Over-All Width Exceeding ... Metres (... Feet) Sign/No Entry for Vehicles Having an Over-All Height Exceeding ... Metres (... Feet) Sign/No Entry for Vehicles Exceeding

.... Tons Laden Weight Sign/No Entry for Vehicles Having a Weight Exceeding ... Tons on One Axle Sign/No Entry for Vehicles or Combinations of Vehicles Exceeding ... Metres (... Feet) in Length Sign

Weight Limit Sign (LN 1931 and LN 1939)/Maximum Width of Vehicles Sign/Maximum Height of Vehicles Sign/No Entry for Vehicles Having an Axle Weight Exceeding ... Tons (UN 1949) Signs

Weight Limit ... Tons Sign/Axle Weight Limit ... Tons Sign/No Trucks Over ... Lbs Empty Weight Sign/Weight Limits ... Tons Per Axle ... ... Tons Gross Sign

Maximum Load Sign/Maximum Height Sign/Maximum Width Sign/ Maximum Load Per Axle Sign/Maximum Length Permissable Sign

4) Miscellaneous & Single Signs

Driving of Vehicles Less Than ... Metres (... Yards) Apart Prohibited Sign

b) Prohibitory & Restrictive: Turns & U-Turns Signs

No Left Turn Sign/No Right Turn Sign/Turning to the Left Prohibited Sign/Turning to the Right Prohibited Sign/No U-Turn Signs/No About--Turn (U-Turns) Signs/No Turns Sign/U-Turn Prohibition Sign

Turn Left (Right) Sign

No Turn Sign

No Turn on Red Sign/Right Turn on Red After Stop Sign

No Right Turn on Red Traffic Signal Sign

Do Not Block Crossroads Sign

c) Prohibitory and Restrictive: Overtaking (Passing) Sign

Overtaking Prohibited Sign/Overtaking By Goods Vehicle Prohibited Sign

Do Not Pass Sign

No Overtaking Sign

Stopping Prohibited Sign

d) Prohibitory and Restrictive: Speed Limits Sign

Maximum Speed Limited to the Figure Indicated Sign

Maximum Speed Zone Sign

Speed-Limit Sign/Speed Limit Sign

Speed Limit 30 MPH Sign/30 MPH Speed Limits Sign
Truck Speed Limit Sign/Night Speed Limit Sign/Minimum Speed Limit Sign/Truck Maximum Sign
Speed Zone Ahead Sign/Reduced Speed Ahead Sign/Reduced__Speed MPH Sign/Speed Limit__& Minimum Speed Limit Sign

e) Miscellaneous, Single Forms, & End of Prohibition or Restrictive Sign
Dangerous Goods Prohibition Sign
Fine Higher Plaque
Passing Without Stopping Prohibited Sign
Stop (Customs) Sign/Customs Sign/Stop Near Customs Sign
Use of Audible Warning Devices Prohibited Sign/Horn Blowing Prohibited Sign/Silence Sign
End of All Local Prohibitions Imposed on Moving Vehicles Sign/ End of Speed Limit Sign/End of Prohibition of Overtaking Sign
Speed Limit De-Restriction Sign
End__Mile Speed Sign
Additional Panels
Inspection Sign
Truck Inspection Station Sign/Commercial Vehicles Next Right Sign/ Commercial Vehicles Next Right Sign/Truck Inspection Station Advance Sign/Truck Inspection Station Exit Signs
When Passing Workers Plaque

Mandatory Signs (3B4)
Mandatory Signs
Direction to be Followed Sign
Compulsory Circulation Sign (I)
Compulsory Circulation Sign (II)
Pass This Side Sign
Divided Highway Crossing Sign
Keep Your Right Sign/Turn Left Only Sign/Turn Right Only Sign/Keep Straight Ahead Sign/Trucks to Right-Lane Sign/Two Way Traffic Ahead Sign/Pedestrians to the Left Sign/Center Lane-Left Turn Only Sign
Keep Right Sign/Keep Left Sign
Left (Right) Turn Only Lane Sign/Straight Through or Left (Right) Turn Only Lane Sign/Right or Left Turn Lane Only Sign/All Movements Permitted

Lane Sign/Straight Through Lane Only Sign/Double Right (Left) Turn Only Sign/Straight Through & Double Left (Right) Turn Only Sign/Two Way Left Turn Lane Sign/Three Lane Turn Movements Sign

Compulsory Roundabout Sign/Traffic Circle Sign

Compulsory Cycle Track Sign/Compulsory Foot-Path Sign/Compulsory Track for Riders on Horseback Sign/Compulsory Minimum Speed Sign/ End of Compulsory Minimum Speed Sign/Snow Chains Compulsory Sign

Do Not Block Crossing Sign

Intersection Lane Control Signs

Lane-Use Control Signs

Mandatory Movement Signs/Optional Movement Signs/Mandatory Turn Sign/Double Turn Sign

Mandatory Movement Lane Control Sign/Optional Movement Lane Control Sign/Advance Intersection Movement Lane Control Sign

Supplemental Plaques: Left Lane/HOV+2/Taxi Lane/Center Lane/Right Lane/Bus Lane/Left Two Lanes

Two Way Left Turn Only Sign/Center Lane-Left Turn Only Sign

Passing Lane Ahead Sign

Preferential Lanes Sign

Begin Right Turn Lane Yield to Bikes

Right (Left) Lane Must Turn Right (Left) Sign

Signs for Uphill Traffic Lane

Slow Moving Traffic Lane Signs

Signs Indicating a Regulation or Danger Warning Applying to One or More Traffic Lanes

Compulsory Minimum Speed Applying to Different Lanes Sign/ Compulsory Minimum Speed Applying to One Lane Sign/Speed Limits Applying to Different Lanes Sign

Signs Indicating Lanes Reserved for Buses

Slower Traffic Keep Right Sign/Trucks Use Right Lane Sign/Truck Lane__ Sign/Keep Right (Left) Signs

Snowmobile Route Sign/Snowmobile Prohibition Sign

Truck Route Sign/All Trucks Commercial Vehicles Next Right Sign

Lane Use Restriction Sign

Yield Centre Lane to Opposing Traffic Sign

One Way Sign/One-Way Signs
Tunnel Sign
Keep Left (Right) Dual Carriageway Sign/Turn Left (Right) One Way Only Sign
Keep Left Sign/Turn Left Sign/Keep Left of Island Sign
Keep Right Except to Pass Sign
Left Lane for Passing Only Sign
One-Way Sign (II)
Overhead Preferential Only Lane/Preferential Only Lane Sign
Preferential Only Lane Sign for High-Occupancy Vehicles (HOV) Sign
Reversible Lane Control Sign
Road (Street) Closed Sign/Road Closed__Miles Ahead -- Local Traffic Only Sign/Road-Closed Sign/Road Closed to Thru Traffic Sign
Slower Traffic Keep Right Sign/Slower Traffic Keep to Right Sign
Slower Traffic Use Right Lane Sign
Entry Only-One Way Street Sign
Travelpath Restrictions Sign

Standing & Parking Signs (3B5)
Standing & Parking Signs
Emergency Parking Sign
Parking Prohibited Signs/Standing & Parking Prohibited Signs/Alternate Parking Sign/Limited Duration Parking Zone Sign/Parking Signs
Handicapped Parking Sign
Limited Direction Parking Zone Exit Sign
Restricted Stopping & Waiting Sign
Waiting on Alternate Sides Sign
Parking Sign
Parking Prohibited Zone Sign/Parking Prohibited at Certain Times Zone Sign/Parking Zone Sign/End of Parking Prohibited Zone Sign/End of Parking Zone Sign
No Parking Sign/Restricted Parking Sign/No Parking & No Stopping Signs
No Parking Sign/No Waiting Sign/Parking Sign/Prohibition of Parking Sign
Waiting Prohibited Sign/Stopping Prohibited Sign
No Parking Sign/No Parking__To__Sign/No Parking Except Sundays & Holidays Sign/No Stopping Or Standing Sign/One Hour Parking Sign/

No Parking Loading Zone Sign/No Parking Bus Stop Sign/No Standing Anytime Sign
No Parking on Pavement Sign/No Stopping on Pavement Sign/No Parking Except on Shoulder Sign/No Parking Sign/Emergency Stopping Sign/ Emergency Parking Only Sign
No Waiting This Side Today Sign/Waiting to Limited To__In Any Hours Sign
No Parking Sign/Parking Sign
No Parking Sign/Bike Lane Sign
Multiple Parking Control Sign
No Parking/Bicycle Lane Sign
Parking Prohibition Signs in Rural Districts
Parking, Standing, & Stopping Sign
Rural Parking Control Signs
Rural Parking Control Sign
Rural Stopping Control Sign
Snow Route Sign
Stopping Is Prohibited Sign
Urban No Stopping Sign
Stopping Control Sign
Rush Period Stopping Control Sign
Part Time Stopping Control Sign
Urban Parking & Stopping Sign
Urban Parking Control Sign
Parking Control Sign
Part-Time Sign
Parking Sign
Pedestrian Crossing Sign (3B6)
Cross Ony at Cross Walks Sign
Emergency Restriction Sign
In Street Pedestrian Crossing Sign
No Pedestrian Crossing Sign
Pedestrian Corridors Sign
Pedestrian Crossing Sign
Pedestrian Crosswalk Sign/Playground Crossing Sign/School Crossing Sign

Reserved Parking for Persons with Disabilities Sign
Use Ped Signals Sign
Yield to Peds Sign
Use Cross Walk Sign
Unsignalized Pedestrian Crosswalk Sign
Cross on Green Light Only
Cross on Walk Signal Only
Push Button for Green Light
Push Button for Walk Light
Yield Here to Pedestrian Sign

Miscellaneous Regulatory Signs (3B7)

Signing for Civil Defense/Emergency Management Signing
Evacuation Route Sign/Evacuation Route Sign
Area Closed Sign
Traffic Regulation Post Sign/Traffic Control Point Sign
Emergency Speed Sign/Maintain Top Safe Speed Sign
Road Use [1961 has Priority instead of Road Use] Sign/
Road (Area) Use Permit Required for Thru Traffic Sign
Emergency Aid Centers Sign
Decontamination Center Sign
Registration Center Sign
Welfare Center Sign
Medical Center
Fallout Shelter Directional Sign/Shelter Directional Sign
Emergency Shelter Sign/Chemical Shelter Sign/Fallout Shelter Sign/
Hurricane Shelter Sign
Bicycle Lane Signs
Bicycle Lane Ahead Sign
Right Lane Bicycles Only Sign
Bicycle Lane Ends Sign
Do Not Stop on Tracks Sign
Hazardous Cargo Sign/Hazardous Materials Sign
No Hitchhiking Sign
Photo Enhanced Sign
Shared-Use Path Restriction Sign

Stay in Lane Sign
Stop Here on Red Sign
Track Out of Service Sign
Traffic Laws Photo Enhanced Sign

1A2 Alphabetical Index

3B Regulatory Signs

3B1 Introduction, Overarching/Sub-Overarching Terms and Messages

a) General Note. Regulatory Signs are generally known by this term without regard to system. Some past systems employed very different terms. Some systems follow a unitary notion of Regulatory Signs while other systems used categories of terms. Some regulatory systems focus on motorists and the response they are to execute; others systems focus more on a traffic and environment based approach. In the League of Nations and United Nations systems there have been historically two basic phases: prohibitions (acts not to be performed) and mandatory (acts that must be performed. Early terms included Signs Giving Definite Information divided into Signs Prohibiting Passage, and Signs Indicating an Obligation LN 1931). LN 1939 employed the sub-category terms as a general term: Prohibitory or Mandatory with each word as a subdivision. UN 1949 named the category Signs Giving Definite Instructions divided into Prohibitory and Mandatory Signs while UN 1968 employed the general term of Regulatory Signs but excluded certain specialized forms. UN 1968 added Priority Signs as a new sub-category.

Older editions of US MUTCD divided Regulatory Signs into Series including Right-of-Way, Speed, Movement, Parking, Pedestrians. That structure has value though it does not dominate the classification of this study. Canada divides these Signs into Right-of-Way Control Signs and Road Use Control Signs. UN GERSS has a simple division of Stop Signs, and Other Signs.

b) Overarching and Sub-Overarching Terms

REGULATORY SIGNS.
Classification #: 432
Form of Aid: Unlighted TCD Aid
Operation; Vertical Signboards provide visual information through shape, color, symbols.
Comments: This category of sign provides information on traffic laws and regulations. Priority, prohibition and mandatory are major phases of these Signs.

A diverse range of terms have been employed for these Signs. The introductory paragraph of this chapter provides an overview.
References: UN GERSS 1952, US MUTCD editions

SIGNS GIVING DEFINITE INSTRUCTIONS. UN 1949 employed this term for what have become known as Regulatory Signs. The term was divided into Prohibitory and Mandatory Signs.
Reference: UN 1949

SIGNS GIVING DEFINITE INFORMATION. LN 1931 included this term which was divided into Signs Prohibiting Passage, and Signs Indicating an Obligation.
Reference: LN 1931

PRIORITY SIGN. A sub-overarching term first included by UN 1968. It covers a range of signs which relate to priority of traffic more than issues of mandatory action or prohibited actions.
Reference: UN 1968

PROHIBITORY OR MANDATORY SIGNS/PROHIBITORY AND MANDATORY SIGNS. These terms suggest major subdivisions of Regulatory Signs. However, they constitute a single category with each term separately representing one major phase of what has become known as Regulatory Signs. LN 1939 includes the first term, and CASATC the second.
References: LN 1939, CASATC 1950

PROHIBITORY SIGNS. This is a major sub-overarching term. It includes Signs calling for prohibition of an action.
Reference: UN 1949

MANDATORY SIGN. This sub-overarching term signifies actions that are to be carried out by motorists.
Reference: UN 1949

c) Messages

Messages are often specific to a given Sign. Nonetheless, information about messages for the categories of Signs in various systems can provide an general overview of that topic.

UN GERSS 1952 recommends a disc with light ground and darker border. Graphic or alphanumeric symbols are in darker colors. Rectangular plates follow a similar pattern. UN ECAFE 1964 follows a similar pattern though more specific: round plates with white or light yellow ground and red border with dark or black symbols. The presence of oblique bar indicates prohibition. The lack of the bar indicates a limitation or may call for compulsory action. Stop Signs have a variant pattern for both systems.

IAMM 1967 calls for round plates with white ground and black symbols and red border. Red oblique bars are added when needed. Canada 1976 employs rectangular plates (vertical axis primary) with white ground, and black borders and symbols. Turn Control Signs are square in shaped with white ground and black symbols. Those with red circle denote prohibition. While those with mandatory instructions display a green annular ring. Stop, Yield, Parking are at variance in shape, color and design. US MUTCD generally use rectangular-shaped plates with emphasis on vertical dimension. Grounds are white with black symbols and rim.

UN 1968 Signs are circular, with white or yellow ground, black symbols and red border for Prohibitive and Restrictive Signs. Oblique bars are red. Priority Signs are diamond-shaped with black rim, white bars and yellow or orange center. Mandatory Signs are circular with blue ground and symbols in white or light color. Standing and Parking Signs are circular with blue ground, red border and red oblique bars. The older UN 1949 instructions were similar though yellow became light yellow, and Mandatory Signs were white only for symbols.

LN 1931 for Signs Prohibiting Passage had red discs and white or pale yellow center. Signs Indicating an Obligation consisted of a disc for Direction to be Followed Sign which displayed an arrow. Colors were not specified save that red was not to dominate. The disc could be entirely in blue. The second Sign, Stop Near a Customs-House was a disc in red with circular white or pale yellow center.

147
48

A "dark horizontal stroke" and the word "Customs" completed the Sign.
LN 1939 employd a red disc with white or yellow center. One-way or all entry prohibited signs included a horizontal bar. Mandatory Signs had a blue disc with white or yellow center for figure or arrow.

3B2 Priority Signs

PRIORITY SIGNS.
Classification #: 4320
Form of Aid: Unlighted TCD Aid
Operation: Messages displayed on Signboards. Message configurations were diverse because these Signs include singular Signs (e.g. Give Way/Yield Sign) as well as Signs following Regulatory patterns for given systems.
Comments: UN 1968 has created a new category of Signs termed Priority Signs that bridges some of the Signs of the Regulatory and Warning categories. The Stop Sign, the Yield/Give Way Sign, and Signs regulating the priority of vehicles are all part of this segment. While others systems may have created a subdivision for the Stop Sign and Yield Sign they do not have a priority group. The UN category is partly adopted for the Database; however, Warning Signs for priority use are found within the Warning category.

GIVE WAY/YIELD SIGN. This Sign requires stopping when traffic is present on intersecting routes. The Sign is triangular in shape with a single point downwards. UN 1968 refers to it as having a white ground and red border without other symbols. The IAMM 1967 version has a somewhat narrow border when Yield (or Ceda El Paso) is added and a wider one when no words are included. US MUTCD 1971 and newer versions have a very wide border that could nearly be considered as a ground color with a white insert and rim. The older Yield Sign displayed a yellow ground with black rim and the word "Yield" in black. ECE 1995 has a Give Way Sign similar to UN 1968 except that ECE permits a yellow ground. The Give Way Sign is not found in older system. Wainright notes that the Sign is nearly universal in scope.
References: IAMM 1967, US MUTCD 1971, ECE 1995, Wainright 2005

TO ONCOMING TRAFFIC SIGN. US MUTCD 2003 includes the Yield Sign

(No. R1-2) and To Oncoming Traffic Sign (No. R1-2A) but seemingly without explanation for the second Sign. It does not appear in previous editions.
Reference: US MUTCD 2003

SLOW-MAJOR ROAD AHEAD SIGN. UK included this Sign in OBS. It displays the triangle within circle from LN followed by message consisting of the word Slow followed by broad black horizontal bar intersected by a narrow vertical bar (akin to that of a Priority Road Sign) and concluded with the words "Major road ahead." The Sign may constitute a form of Yield. UK MOT and Noble 1946 also include this Sign.
References: OBS 1950, UK MOT, Noble 1946

STOP SIGN. This Sign indicates that a full stop is required before entering the intersection. UN 1968 has two models of the Stop Sign: the American model and the European model. Often times the European model is the first model though not in this instance. The first model is octagonal in shape with white rim, red ground, and the word "Stop" in white. The second model is circular in shape with a white or yellow ground with red border. Within this model is the Give Way Sign (Triangle with red border) and within that is the word "Stop." IAMM 1967 employs the American model. UN GERSS 1952 also adopted that model but added a black horizontal bar with vertical insert upon which the word "Stop" is printed in white; the ground color is also white. ECAFE 1964 employs the GERSS version. According to IAMM 1981 approves a choice of four words for the Stop message: Stop, Alto, Arrete, or Parada. UN 1949 employs the European model. LN 1939 has a similar Sign though it was classified as a Warning Sign. UN ECE 1995 has adopted the American model. OBS 1950 adopted the European model and added a plate with white ground, black rim and the word inscription: Halt at Major Road Ahead. CASATC 1950 deploys a disc with red border and white ground and a rectangular plate with the word "Stop."
References: UN 1968, IAMM 1967, UN GERSS 1952, ECAFE 1964, UN 1949, OBS 1950, LN 1939, CASATC 1950, US MUTCD editions

Stop Signs can be augmented by plates:

SUPPLEMENTAL PLATES/PLAQUES:

FOUR-WAY PLAQUE. Indicates number of intersections involved.

ALL WAY. Plaque can be used in placed of Four-Way Plaque
References: US MUTCD newer editions employ Plaques; older use Plates

HALT AT MAJOR ROAD AHEAD. This is the UK version of the Stop Sign. It combines the European model of the Stop Sign with a plate displaying white ground, black rim and a word inscription. See also Stop Sign.
Reference: OBS 1950

PRIORITY ROAD SIGN/END OF PRIORITY SIGN. The first Sign denotes priority or right of way; the second indicates cessation of priority. These are apparently found only in UN 1949 and UN 1968. The first Sign is diamond shaped ("square with one diagonal vertical"). with black rim, white border, yellow or orange center. End of Priority Sign displays the same pattern with a black or gray band running diagonally across the plate. The band can also consist of black or gray lines.
References: UN 1949, UN 1968

ADDITIONAL PANELS. ECE provides Additional Panels or supplemental plates denoting priority routes. The symbols display a segment of roadway at intersections with black symbols on white ground.
Reference: ECE 1995

STOP, CHILDREN CROSSING SIGN. This Sign from Noble is a Regulatory Sign of the Mandatory form. Details on the message dimensions are lacking.
Reference: Noble 1946.

3B3 Prohibitory & Restrictive Signs

PROHIBITORY & RESTRICTIVE SIGNS.
Classification #: 4321
Form of Aid: Unlighted TCD Aid
Operation. Messages displayed visually through vertical Signboards according to established message systems.
Comments: Older European systems included Prohibition and Mandatory forms. UN 1968, a more global system, includes restrictions as well as prohibitions of

behavior by motorists.

a) Prohibition & Restriction of Entry Signs

1) One-Way & Both Direction Forms

NO ENTRY SIGN. This Sign indicates entry prohibited for all vehicles. This Sign has two models. One displays a solid red disc save a horizontal white bar. The other displays a vertical black arrow with oblique bar. This Sign has a white or yellow ground with wide red border. There are alternate names for this Sign as the following discussion will indicate. Older European forms are very similar though LN 1928 has a full-width bar and a supplemental plate indicating No Entry. LN 1928 also offered an alternate form with No Entry painted on the disc. OBS 1950 employed a red disc with white bar, white border and black rim. No entry was embossed on the white bar in black letters. CASATC apparently did not include this Sign. Wainright regards this as a second sign that is nearly global in usage.
References: LN 1928, OBS 1950, CASATC, Wainright 2005

DO NOT ENTER SIGN. This Sign is the equivalent of the No Entry Sign. US MUTCD 1961 employed the word inscription form with this Sign: a square Sign plate with white ground, black rim and the words "Do No Enter" in black. US now follows the UN pattern though the words "Do No Enter" are added. A supplemental plate with the words One Way may be added. A Wrong Way supplemental plate with white words on red ground was added by US MUTCD 1971. It is also included by Canada 1985. Canada 1976 included Educational Tabs for Signs in transition from word to graphic forms; these have been dropped.
Reference: US MUTCD 1961, Canada 1985

EXCEPT BUSES & CYCLISTS PLAQUE. A Plaque intended to be affixed to Do Not Enter Sign.
Reference: Manitoba 2007

DIRECTION PROHIBITED SIGN. The No Entry Sign becomes Direction Prohibited in UN GERSS 1952. This is the mandatory Direction to be Followed Sign with an oblique bar. UN 1968 has a different design for that Sign. IAMM

1967 employs the GERSS form which follows the second model of UN 1968.
References: UN GERSS 1952, UN 1968, IAMM 1967

CLOSED TO ALL VEHICLES IN BOTH DIRECTIONS SIGN/CLOSED TO ALL VEHICLES SIGN. This Sign displays the basic form of red border and white or yellow ground. There are no other symbols displayed. It is included in UN 1968 and older European systems but not found in other systems. Older sources speak of Closed to All Vehicles without actually saying "In Both Directions."
Reference: UN 1968

WRONG WAY SIGN. Sign first appeared in US MUTCD 1971. It supplements the Do Not Enter Sign in situations where a wrong-way entry is a distinct possibility. It has a red ground with white rim and letters.
References: US MUTCD 1971, 2003

2) Exclusion Categories of Vehicles Forms

NO ENTRY FOR ... SIGNS. These are a diverse and numerous group of No Entry Signs that follow the basic no entry pattern though indicating different categories of exclusion. These Signs include:

> NO ENTRY FOR ANY POWER DRIVEN VEHICLE EXCEPT TWO-WHEELED MOTOR CYCLES WITHOUT SIDE-CAR/
> ... MOTOR CYCLES/... CYCLES/... MOPEDS/GOODS VEHICLES/...
> ANY POWER DRIVEN VEHICLE DRAWING A TRAILER
> OTHER THAN A SEMI-TRAILER OR A SINGLE AXLE TRAILER/
> ...FOR PEDESTRIANS/... FOR ANIMAL-DRAWN VEHICLES/
> ...FOR HANDCARTS/...POWER DRIVEN AGRICULTURAL
> VEHICLES/...VEHICLES CARRYING DANGEROUS GOODS FOR
> WHICH SPECIAL SIGN PLATING IS PRESCRIBED

UN 1968 employs the pattern of disc with white or yellow ground, red border, red oblique bar and graphic symbols representing the object of the exclusion. Many of the graphic symbols date back to the early twentieth century though representa-

tions of autos and trucks are periodically updated. ECE 1995 contains a variant of the No Entry ... Any Power Driven Vehicle Drawing a Trailer that lacks any qualifying words. A supplemental plate with tonnage can be added to the ECE Sign. ECE 1995 adds a Sign for truck transporting dangerous goods. The Sign displays an image of a truck in orange with red circle and bar.
References: ECE 1995

NO ENTRY FOR GOODS-CARRYING VEHICLES SIGN/NO ENTRY FOR MOTOR VEHICLE SIGN/NO ENTRY FOR BICYCLES SIGN. UN GERSS 1952 includes basic forms of this category of Signs though titles may differ with those of UN 1968.
References: UN GERSS 1952, UN 1968

MOTOR TRAFFIC PROHIBITED SIGN/MOTOR LORRIES PROHIBITED SIGN/CYCLING PROHIBITED SIGN/MOTORCYCLING PROHIBITED SIGN/RIDING HORSES PROHIBITED SIGN. LN 1928 offers an alternate formulation of No Entry Signs which are at variance with other LN systems. LN 1928 employs the Double-Sign system of UK.
Reference: LN 1928

NO TRUCKS SIGNS/NO PASSENGER CARS SIGN/NO ANIMAL-DRAWN CARTS SIGNS/NO BICYCLES SIGNS/NO FARM MACHINERY SIGN. For these Signs IAMM 1967 followed the UN GERSS 1952 pattern with circular discs and oblique bars. However, Sign names are different from similar Signs of other systems.
References: IAMM 1967, UN GERSS 1952

NO MOTOR VEHICLES SIGNS/NO TRUCK SIGNS/TRUCKS EXCLUDED SIGNS/COMMERCIAL VEHICLES SIGNS/PEDESTRIANS EXCLUDED SIGNS/VEHICLES WITH LUGS PROHIBITED/COMMERCIAL VEHICLES WITH LUGS PROHIBITED/PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES PROHIBITED SIGNS/PEDESTRIANS AND BICYCLES PROHIBITED SIGNS/NO BICYCLES SIGNS/BIKES, TRUCKS, MOTORCYCLES PROHIBITED SIGNS. US MUTCD 1961 Signs contain word inscriptions exclusively though some US MUTCD 1971 Signs use graphic symbols. US

practice expanded graphic symbols, including the use of red discs and oblique bars in 1978. There is some overlap in Sign types between IAMM 1967 and US MUTCD 1961. Canada 1985 employs pictographs. IAMM 1981 includes a Mexican Sign combining prohibition on bikes, trucks and motorcycles together.
References: UN GERSS 1952, UN 1968

PLAY STREET: PROHIBITED ALL VEHICLES __ TO __ UNLESS CALLING AT PREMISES IN THE STREET. OBS has, apparently, one Sign in this category. The Sign follows the Double-Sign pattern of OBS. CASATC 1950 apparently has no Signs in this category.
References: OBS 1950, CASATC 1950

SELECTIVE EXCLUSION SIGN. A category term for various signs that indicate types of vehicles excluded from specific roads and streets. Examples include No Trucks, No Motor Vehicles, No Bikes.
Reference: US MUTCD 2000

TRAFFIC PROHIBITION SIGNS. A term for Signs that prohibit various types of vehicles and pedestrians in specific situations. The term is attached to illustrations of the types Signs involved.
Reference: US MUTCD 2003

3) Vehicular Exclusion: Weight, Height and Length Forms

UN 1968 offers five Sign models in this category. The Sign pattern consists of a disc with red border and white or yellow ground. The oblique bar is absent.

NO ENTRY FOR VEHICLES HAVING AN OVER-ALL WIDTH EXCEEDING ... METRES (... FEET) SIGN/NO ENTRY FOR VEHICLES HAVING AN OVER-ALL HEIGHT EXCEEDING ... METRES (... FEET) SIGN/NO ENTRY FOR VEHICLES EXCEEDING ... TONS LADEN WEIGHT SIGN/NO ENTRY FOR VEHICLES HAVING A WEIGHT EXCEEDING ... TONS ON ONE AXLE SIGN/NO ENTRY FOR VEHICLES OR COMBINATIONS OF VEHICLES EXCEEDING ... METRES (... FEET) IN LENGTH SIGN.
Symbols consists of numbers, word abbreviations and graphic symbols indicating

the limits covered by the Sign. All symbols are in black. UN GERSS 1952 Signs are very similar to UN 1968 Signs except there is no Sign indicating maximum weight per axle limitations.
References: UN 1968, UN GERSS 1952

WEIGHT LIMIT SIGN (LN 1931 AND 1939)/MAXIMUM WIDTH OF VEHICLES SIGN/MAXIMUM HEIGHT OF VEHICLES (Both 1939 only) SIGN/NO ENTRY FOR VEHICLES HAVING AN AXLE WEIGHT EXCEEDING ... TONS (UN 1949) SIGNS. Pre-UN 1968 systems have Signs resembling UN Signs though LN 1931 and LN 1939 refers to "Limits" rather than "No Entry" when specified limits are exceeded.
References: US MUTCD 1961, 1971, 1978

WEIGHT LIMIT ... TONS SIGN/AXLE WEIGHT LIMIT ... TONS SIGNS/NO TRUCKS OVER ... LBS EMPTY WEIGHT SIGN/WEIGHT LIMITS ... TONS PER AXLE ... TONS GROSS SIGN. US 1961 has one Sign in this category: Weight Limits ... Tons Sign. US 1971 includes the other Sign versions. US MUTCD 1978 includes a graphic version of various Signs for trucks with tonnage limits.
References: IAMM 1967, UN 1968, OBS 1950, CASATC 1950

MAXIMUM LOAD SIGN/MAXIMUM HEIGHT SIGN/MAXIMUM WIDTH *SIGN/MAXIMUM LOAD PER AXLE SIGN/MAXIMUM LENGTH* PERMISSABLE SIGN. IAMM 1967 Signs closely resemble those of UN GERSS 1952 (which are those of UN 1968 as well). However, the names are different. OBS 1950 and CASATC 1950 apparently lacks Signs in this category.
References: IAMM 1967, UN GERSS 1952, OBS 1950, CASATC 1950

4) Miscellaneous & Single Forms

DRIVING OF VEHICLES LESS THAN ... METRES (...YARDS) APART PROHIBITED SIGN. This UN Sign follows the established format with symbols that include graphic representations of autos as well as the necessary numbers indicating spacing distance.
Reference: UN 1968

b) Prohibitory & Restrictive: Turns & U-Turns Signs

NO LEFT TURN SIGN/NO RIGHT TURN SIGN/TURNING TO THE LEFT PROHIBITED SIGN/TURNING TO THE RIGHT PROHIBITED SIGN/NO U-TURN SIGNS/NO ABOUT-TURN (U-TURNS) SIGNS/NO TURNS SIGN/ U-TURN PROHIBITION SIGN. These Signs present selective prohibitions as well as general prohibitions. UN 1968 message configurations include: Disc with white or yellow ground, red border and oblique bar over approriate graphic symbol of arrow to left or right or curved. UN 1949 includes identical Right Turn and Left Turn Signs but no U-Turn Sign. UN 1949 speaks of Turning to the Right or Left Prohibited rather than No Right Turn or No Left Turn. UN GERSS 1952, IAMM 1967, ECAFE 1964 all follow that basic form. UN GERSS employs the UN 1949 names while IAMM and ECAFE use No Right Turn, No Left Turn, and No U-Turn. UN GERSS speaks of an About-Turn (U-Turn) Prohibited Sign. UN GERSS allows for an expanded Sign with word inscription. Krampen 1983 includes illustrations of that form and other similar forms. This form includes a rectangular shaped plate with the basic graphic form occupying the upper part of the plate while the word inscription "No U Turn" in black letters takes up the lower portion of that plate. This holds true for No Right Turn and No Left Turn Signs.

US MUTCD 1961 displays the standard US rectangular plate with black rim, white ground and black letters denoting No Left Turn, No Right Turn, No Turns and No U Turns. US MUTCD 1978 has two plates with the word inscription in the lower plate and the UN graphic symbol in the upper plate. There are word-only forms for No Right, No Left and No U Turns. No Turns is in a word format. Two systems, OBS 1950 and CASATC 1950 apparently lack Turn Prohibition Signs.
References: UN 1968, UN 1949, UN GERSS 1952, IAMM 1967, ECAFE 1964, US MUTCD 1968, 1971, 1978

TURN LEFT (RIGHT) SIGNS. These Signs from Canada may be unique to Canada: a green annular ring encircles left or right turn arrow (annular ring indicates an action that must be carried out). White ground with black arrow. A red ring with oblique bar, of course, indicates prohibition of a course of action.
Reference: Canada 1976

NO TURN SIGN. This Sign has the same format as the previous Sign from Canada. It indicates a straight passage is required. It has a white ground and a black arrow surrounded by green annular ring.
Reference: Canada 1976

NO TURN ON RED SIGN/RIGHT TURN ON RED AFTER STOP SIGN. The first Sign appears in US MUTCD 1978. It replaces the second Sign added to US MUTCD 1971.
Reference: Canada 1976

NO RIGHT TURN ON RED TRAFFIC SIGNAL SIGN. Canada 1985 adds this Sign which includes the standard right turn arrow with oblique bar and disc combined with a representation of a Traffic Signal with red lens.
Reference: Canada 1985

DO NOT BLOCK CROSSROADS SIGN. This Sign from Mexico appears in IAMM 1981. It is placed at those city intersections which use do no use Traffic Signals. In such intersections, normally used by faster moving traffic, there are frequently formed lines for vehicles which obstruct transverse traffic and this Sign addressed that problem.
Reference: IAMM 1981

c) Prohibitory and Restrictive: Overtaking (Passing) Signs

OVERTAKING PROHIBITED SIGN/OVERTAKING BY GOODS VEHICLE S PROHIBITED SIGN. Overtaking, a more literal meaning, is used in Europe. UN 1968 has two forms of the first Sign. The first form, within the basic Regulatory Sign model, has graphic symbols displaying a black auto and a red auto; this signifies no passing. The other model has two black autos and an oblique bar signifying no passing. The second Sign also has two models for UN 1968. The message pattern is that of the general prohibition Sign: symbols either denote a red truck and black auto, or two black vehicles but with an oblique bar. UN GERSS 1952, ECAFE 1964, IAMM 1967 all include an Overtaking Prohibiting Sign with oblique bar. None employ the two color vehicle model. However, UN

1949 displays the two vehicle form but without the bar.
Reference: UN 1968, UN GERSS 1952, ECAFE 1964, IAMM 1967, UN 1949

DO NOT PASS SIGN. US MUTCD 1961 and newer editions employ a word inscription with black letters, black rim and white ground.
References: US MUTCD 1961 and newer editions

NO OVERTAKING SIGN. CASATC 1950 has a unique form of this Sign though the meaning is unclear: A two-part Sign with white disc and red border surmounting a rectangular plate with yellow ground and a graphic symbol of a curved arrow which overlaps a graphic symbol representing a roadway. The symbols are accompanied by a directional arrow.
Reference: CASATC 1950

STOPPING PROHIBITED SIGN. This Sign denotes places where it is prohibited to take on or drop off passengers. It appears in IAMM for Mexico.
Reference: IAMM 1981.

d) Prohibitory & Restrictive: Speed Limit Signs

MAXIMUM SPEED LIMITED TO THE FIGURE INDICATED SIGN. The basic speed regulatory Sign has a complex title for UN 1968. The Sign follows the standard pattern but with numbers rather than graphic symbols; letters are in black.
Reference: UN 1968

MAXIMUM SPEED ZONE SIGN. This ECE 1995 Sign displays the speed in black letters with red circle on a white rectangular shaped ground accompanied by the word Zone. The end of the Zone is marked by a similar Sign except for a black circle and an oblique band of black stripes.
Reference: ECE 1995

SPEED-LIMIT SIGN/SPEED LIMIT SIGN. This is the standard title for the Signs performing this function. UN 1949 has a hyphenated version. A supplemental plate (rectangular with a red rim) can be added that denotes the beginning

of the speed limit in question. UN GERSS 1952 includes a Speed Limit Sign that is similar though the word "Miles" is added to the Sign. Krampen, in his review of UN GERSS, includes a rectangular plate with the above display augmented by the words "Speed Limit". ECAFE 1964 follows the GERSS pattern. IAMM 1967 has the basic design with either Mile or KM added to the numbers. A supplemental plate can be added denoting either "Steady" speed or "Minimum" speed. IAMM 1981 includes national practices including a variant form of Speed Sign for Uruguay: maximum speed is indicated by placing a horizontal bar above the listed speed accompanied by a downward pointing arrow. Minimum speed is indicated by the reverse practice. A fixed or steady speed has a bar above and below the listed speed without an arrow. LN 1931 and LN 1939 Sign models follow the essential pattern though KM has been added. LN 1928 offers a large rectangular Sign plate though with white ground, black rim and words and numbers in black.
References: UN 1949, UN GERSS 1952, IAMM 1967, LN 1928, LN 1931

SPEED LIMIT 30 MPH SIGN/30 MPH SPEED LIMITS SIGN. These Signs represent UK practice and includes the actual speed limit in the name. The Signs refer to the limit for built-up area. Noble has a variant form that excludes the word "Speed."
References: UK MOT 1950, Noble 1946

TRUCK SPEED LIMIT SIGN/NIGHT SPEED LIMIT SIGN/MINIMUM SPEED LIMIT SIGN/TRUCK MAXIMUM SIGN. Speed regulation Signs in US MUTCD 1961 and newer editions contains many models that follow either the basic mode of white ground and black letters or a reversed pattern of black ground and white letters. The basic is rectangular with the word inscription Speed Limit followed by the speed. A Sign for Truck Speed Limit is square with the word "Truck" and the numbers denoting speed limit. A Sign denoting night speed has a black ground, the word "Night" and the maximum speed. A final Sign indicates Minimum Speed with those words and the appropriate speed. Canada has a similar Sign for night speed limits as well as the Truck Maximum Speed Sign.
Reference: US MUTCD 1961

SPEED ZONE AHEAD SIGN/REDUCED SPEED AHEAD SIGN/REDUCED

SPEED MPH/SPEED LIMIT__& MINIMUM SPEED LIMIT. These are further US Signs from the US MUTCD 1971, and newer editions, offer refinements in speed regulations.
Reference: US MUTCD 1971

e) Miscellaneous, Single Forms, & End of Prohibition or Restriction Signs

DANGEROUS GOODS PROHIBITION SIGN. Canada 1985 adds a Sign prohibiting high risks products from some routes. This Sign is related to the Dangerous Goods Route Sign in the Mandatory category. This Sign displays a black diamond with red circle and oblique bar imposed over it.
Reference: Canada 1985

FINES HIGHER PLAQUE. Supplemental Plaque indicates when higher fines are imposed for violations in specified roads and streets.
Reference: US MUTCD 2003

PASSING WITHOUT STOPPING PROHIBITED SIGN. For UN 1968 and for many Europeans the technical meaning of overtaking has the meaning of Passing for those in the Western Hemisphere. Passing is mentioned in UN 1968 but it has a different meaning. The Sign indicates a prohibition against passing a customs house. The Sign displays the basic regulatory pattern. However, it lacks an oblique bar and instead contains the word "Customs" in two languages with a black horizontal bar. The Sign can be employed for other purposes when the word "Customs" is dropped and other messages are inserted; however, examples are not given.
Reference: UN 1968

STOP (CUSTOMS) SIGN/CUSTOMS SIGN/STOP NEAR CUSTOMS SIGN. Customs Signs for UN 1949 and IAMM 1967 Signs are identical to UN 1968. However, the word "Customs" may or may nor not be included in IAMM. The Stop Near Customs Sign of LN 1939 is also identical to UN 1949. The Customs Sign is included within the Mandatory category for LN 1931. CASATC 1950 employs the OBS style of double Sign for Customs as well as for other purposes. The Sign, described as a Restriction Notice has a disc with a white ground, red

border, and a rectangular plate in yellow with the word "Customs" in black letters.
Reference: UN 1949, IAMM 1967, UN 1968, LN 1939, UN 1949, LN 1931

USE OF AUDIBLE WARNING DEVICES PROHIBITED/HORN BLOWING PROHIBITED SIGN/SILENCE SIGN. Horn restriction Signs are listed under a variety of names. The first named Sign is from UN 1968. It follows the standard format with a graphic symbol of a horn and obliqued bar. UN GERSS 1952 and ECAFE 1961 have the second Sign. IAMM 1967 has a similar Sign under the heading of "Silence."
References: UN 1968, UN GERSS 1952, ECAFE 1961

END OF ALL LOCAL PROHIBITIONS IMPOSED ON MOVING VEHICLES SIGN/END OF SPEED LIMIT SIGN/END OF PROHIBITION OF OVERTAKING SIGN. These Signs for UN 1968 have diverse purposes. However, the Sign format has many points of commonality with a core focus within that commonality: ending of prohibitions. These Signs are circular with a white or yellow ground. There are no borders though a rim color (black) can be included. The Signs display a diagonal band running from right to left. The band can be black, dark gray, or black and gray lines forming a band. A general ending of prohibition Sign lacks any symbol denoting the object of the prohibition. An ending of speed limitation includes a speed limit beneath the band. An ending of overtaking prohibition includes symbols of autos beneath the band. UN 1949 has a very similar End of Speed Limit Sign though not illustrated. .
Reference: UN 1968

Other speed restriction cancellation Signs include:

SPEED LIMIT DE-RESTRICTION SIGN. This Sign ending restrictions is from CASATC 1950. It consists of the Speed Sign with a black "x" over the speed limited printed on the lower plate. The OBS 1950 Speed Limit Ends Sign (Derestricted Sign) is classified as a Warning or Informative category Sign.
Reference: CASATC 1950, OBS 1950

END__MILE SPEED SIGN. This Sign from US MUTCD 1961 has the same

size and format as the Speed Limit Sign with the addition of the word "End" above the listed speed limits. It is omitted from US 1971. Speed zones can be ended by posting Signs with a different speed limit thereby eliminating an end of speed Sign.
Reference: US MUTCD 1961, 1971

ADDITIONAL PANELS. ECE 1995 provides supplemental plates or Additional Panels which indicate the focus of Sign. These Panels include one of truck tractor and trailer, and one of a truck with trailer. They have black symbols on white ground; an exempt version is also provided. This form displays, for example, a trolley car accompanied by the word "except" denoting the Sign pertains to all forms of vehicles except the one displayed.
Reference: ECE 1995

INSPECTION SIGN. This Sign from Mexico appears in IAMM 1981. It consists of a representation of an uniform cap and denotes an inspection site. The representation of the cap is placed within a red circle without an oblique bar. Supplemental plates can further delineate the nature of the inspection.
Reference: IAMM 1981

TRUCK INSPECTION STATION SIGN/COMMERCIAL VEHICLES NEXT RIGHT SIGN/TRUCK INSPECTION STATION ADVANCE SIGN/ TRUCK INSPECTION STATION EXIT SIGNS. The first named Sign has a perhaps curious appearance: a graphic representation of a truck accompanied by a line ending in a circle containing, apparently, a weight indicator arrow denoting a truck inspection station. The second Sign is in a word form. The third and fourth Signs replicate the first accompanied by an Advance Sign with images of truck, scales and 2 km in words. These Signs are from Canada 1985. Most US Weight Inspection Signs are in the Informative category; One Sign, All Trucks Commercial Vehicles Right, is a Regulatory Sign. It has white words on black ground.
References: Canada 1985, US MUTCD editions

WHEN PASSING WORKERS PLAQUE. A Plaque that requires reduced speed when passing workers.
Reference: Manitoba 2007

3B4 Mandatory Signs

MANDATORY SIGN.
Classification #: 4322
Form of Aid: Unlighted TCD Aid
Operation: Visual messages displayed through vertical Signboards according to established systems.
Comments: Mandatory Sign is a basic element in European systems. It also is employed by UN 1968. While not a basic term in Western Hemisphere that function is present. A variety of Lane Control Signs in US MUTCD speak of Mandatory Movements. Canada employ green annular ring for this form of Sign. This complements red rings and oblique bars for prohibitions.
References: UN 1968, LN systems, US MUTCD editions, Canada 1976

DIRECTION TO BE FOLLOWED SIGN. This UN 1968 Sign has Left, Through, Right and Through/Right versions. The arrows are large, follow a contemporary design and are sans serif. This version follows the basic Mandatory Sign pattern. However, there is an alternate which consists of a rectangular plate with focus on the horizontal dimension and white rim, black ground and white arrows. The LN systems all have a model of this Sign. While LN 1928 has a different design for the arrow the format is similar to the newer models and mirrored by UN 1968; UN 1949 has the same model. UN GERSS 1952, ECAFE 1964, IAMM 1967 has a different model of this Sign: white ground, red border associated with other Regulatory Signs and black arrows. IAMM has a different name for this Sign (see next entry).
References: UN 1968, LN systems, UN GERSS 1952, ECAFE 1964, IAMM 1967.

COMPULSORY CIRCULATION SIGN (I). This Sign, displayed at intersections, indicates direction to be followed. The symbol is of a black horizontal arrow pointing to the right. See also Compulsory Circulation Sign (II).
Reference: IAMM 1967

COMPULSORY CIRCULATION SIGN (II). This Sign follows the same pattern as the first Compulsory Circulation Sign model except that the arrow points

downward. It is displayed on obstacles within the street and denotes direction to be followed.
Reference: IAMM 1967

PASS THIS SIDE SIGN. The UN 1968 Sign is very similar in purpose to the Compulsory Circulation Sign of IAMM 1967. The IAMM Sign parallels the second model (the first model is that of the European model; the second is the American; there are a few exceptions) of UN 1968; this is similar to that of UN GERSS 1952.
References: UN 1968, IAMM 1967, UN GERSS 1952

DIVIDED HIGHWAY CROSSING SIGNS. This Sign is listed in US MUTCD 1978. It consists of a supplemental plate attached to a Stop Sign that indicates an approach to a road that is physically divided. It can also stand alone. A graphic representation of the divided highway appears on the Sign plate.
Reference: US MUTCD 1978

KEEP YOUR RIGHT SIGN/TURN LEFT ONLY SIGN/TURN RIGHT ONLY SIGN/KEEP STRAIGHT AHEAD SIGN/TRUCKS TO RIGHT-LANE/TWO WAY TRAFFIC AHEAD SIGN/PEDESTRIANS TO THE LEFT SIGNS/ CENTER LANE-LEFT TURN ONLY. These Signs are found in IAMM 1967. They follow the basic UN GERSS/IAMM/ ECAFE Regulatory Sign configurations. According to IAMM 1981, Mexico follows the UN form of a representation of barrier and arrow curving to the right. Newer editions of US MUTCD also include that form. Mexico also has an updated version of graphic symbols for the Trucks to Right Sign.
References: IAMM 1967, IAMM 1981, UN GERSS 1952, ECAFE 1964, US MUTCD editions

KEEP RIGHT SIGN/KEEP LEFT SIGN. These Signs indicate the need for motorist to pass on right (or left) of obstruction or other roadway feature.
References: US MUTCD editions

LEFT (RIGHT) TURN ONLY LANE SIGN/STRAIGHT THROUGH OR LEFT (RIGHT) TURN ONLY LANE SIGN/RIGHT OR LEFT TURN LANE ONLY

SIGN/ALL MOVEMENTS PERMITTED LANE SIGN/STRAIGHT THROUGH LANE ONLY SIGN/DOUBLE RIGHT (LEFT) TURN ONLY SIGN/ STRAIGHT THROUGH & DOUBLE LEFT (RIGHT) TURN ONLY SIGN/ TWO WAY LEFT TURN LANE SIGN/THREE LANE TURN MOVEMENTS SIGN. This series of Signs appears in Canada 1985. They are square with white rim, black ground, and white arrows.
Reference: Canada 1985

COMPULSORY ROUNDABOUT SIGN/TRAFFIC CIRCLE SIGN. This Sign displays a graphic symbol of a curved arrow broken into segments that form a circle. IAMM contributes the term Traffic Circle; the first term is from UN 1968.
Reference: IAMM 1967, UN 1968

COMPULSORY CYCLE TRACK SIGN/COMPULSORY FOOT-PATH SIGN/ COMPULSORY TRACK FOR RIDERS ON HORSEBACK SIGN/ COMPULSORY MINIMUM SPEED SIGN/END OF COMPULSORY MINIMUM SPEED SIGN/SNOW CHAINS COMPULSORY SIGNS. These Signs, while focussed on divergent objects, are similar in scope and appearance except for differences in graphic symbols. These Signs are from UN 1968. UN 1949 includes only the Cycle Track and Minimum Speed Signs.
References: UN 1968, UN 1949

DO NOT BLOCK CROSSING SIGN. This is a Mexican Sign that appears in IAMM 1981. It is a rectangular-shaped Sign with horizontal emphasis. The ground is white and the letters are black.
Reference: IAMM 1981

INTERSECTION LANE CONTROL SIGNS. Term in US MUTCD 2000, 2003 that replaces older Lane-Use Control Signs. It includes Mandatory Movement Lane Control Signs, Optimal Movement Lane Control Signs, Advance Intersection Lane Control Signs.
References: US MUTCD 2000, 2003

LANE-USE CONTROL SIGNS. The US has a series of Signs under this general heading. There are also other US MUTCD 1961 and newer editions Signs that are

similar to Direction to be Followed Signs though outside the Lane-Use Control category.

MANDATORY MOVEMENT SIGNS/OPTIONAL MOVEMENT SIGNS/MANDATORY TURN SIGNS/DOUBLE TURN SIGNS. They are rectangular in shape, with white ground and black lettering and arrows. The Optional Movement type offers an option which may either call for straight through passage or a turn passage. The Mandatory Turn Sign is square in shape with white ground, black rim and black lettering or symbols. The Double Turn Sign includes a turn-only lane and a turn or straight through option.

Mandatory Movement has one Sign form: arrow and one word: "Only." Optional has a double arrow indicating either a turn or straight-through direction but without any words. Mandatory Turn has a word message: "Left (Right) Lane Must Turn Left (Right)." Double Turn Sign combines the Mandatory and Optional Movement Signs and can be either left or right.

Canada has similar Signs under the heading of Overhead Lanes. These signs are white on black instead of black on white. They lack the Double Turn Sign but have other forms including Right or Left Turn Lane form, an All Movement form, Straight Through form and a Two Left Turn Form. The last two Signs exist in US but outside the Lane-Use group.

Reference: US MUTCD 1988

MANDATORY MOVEMENT LANE CONTROL SIGNS/OPTIONAL MOVEMENT LANE CONTROL SIGNS/ADVANCE INTERSECTION MOVEMENT LANE CONTROL SIGNS. US MUTCD 2000 alters the previous named group of Signs. Mandatory becomes the core term and Lane Control is attached to that term.

Mandatory Movement Lane Control Signs includes a series of Supplemental Plaques: LEFT LANE/HOV+2/TAXI LANE/CENTER LANE/RIGHT LANE/BUS LANE/LEFT TWO LANES.

Optional Movement Lane Control Signs indicate situations where there are at least two traffic movements from a lane or to place emphasis on

permitted actions traffic movements.

Advance Intersection Lane Control Signs. These Signs give indication of traffic configuration of lanes in advance.

Reference: US MUTCD 2000, 2003

TWO WAY LEFT TURN ONLY SIGN/CENTER LANE-LEFT TURN ONLY SIGN. The first term is the current term and denotes lane in center for left turns in both directions. There are two versions: arrows only and arrows with words. The second term is an older form.
Reference: US MUTCD 1971, 1978

PASSING LANE AHEAD SIGN. This Sign was added by Canada 1985. It displays a vertical arrow with arrowhead joined by a second arrow which branches off to the right indicating a passing lane is nearby.
Reference: Canada 1985

PREFERENTIAL LANES SIGNS. These Signs first appear in US MUTCD 1978. They denote lanes that are open according to the type of vehicle or number of riders. The Signs are marked by a black box or bar containing a white diamond. The forms include: Buses & Car Pool Only__Hours__Days; Buses and Four Riders Car Pool__Hours__Days; Restricted Lane Ahead; Restricted Lane Ends.
Reference: US MUTCD 1978

BEGIN RIGHT TURN LANE YIELD TO BIKES. This US Sign refers to a Lane-Use Control Sign in which motor vehicles and bicycles share the same driving lane. The Sign has black symbols on white ground.
Reference: US MUTCD 1978

RIGHT (LEFT) LANE MUST TURN RIGHT (LEFT) SIGN. These Signs are Mandatory Turn Signs within the Lane-Use Control Sign category.
Reference: US MUTCD 2003

SIGNS FOR UPHILL TRAFFIC LANE. This term has been replaced by Slow Moving Traffic Lane Signs which see.
Reference: US MUTCD 1961

SLOW MOVING TRAFFIC LANE SIGNS. This category term includes Trucks Use Right Lane Sign, Truck Lane 500 Feet Sign, and Slower Traffic Traffic Keep Right Sign.
Reference: US MUTCD 2000, 2003

SIGNS INDICATING A REGULATION OR DANGER WARNING APPLYING TO ONE OR MORE TRAFFIC LANES. ECE 1995 has created a "Special Regulations" sub-category within the Regulatory category that encompasses various Regulatory and Informative Signs. An attempt has been made in the Database to arrange these Signs according to UN categories. However, these Signs refer to Warning as well as Regulatory Signs. Yet they appear to have a Mandatory character and are placed here. They include three distinct Signs:

COMPULSORY MINIMUM SPEED APPLYING TO DIFFERENT LANES/ COMPULSORY MINIMUM SPEED APPLYING TO ONE LANE/ SPEED LIMITS APPLYING TO DIFFERENT LANES. These Signs have a blue ground, white arrows indicating lanes, white circle and white numbers indicating speed. A white disc, black numbers and red disc are present for speed limits.

Reference: ECE 1995

SIGNS INDICATING LANES RESERVED FOR BUSES. These Signs include a panel with white ground, three black arrows (representing lanes), and a blue disc superimposed on one downward pointing lane accompanied by the silhouette of a bus. A second displays three upward pointing arrows topped by an rectangular insert with the silhouette of a bus over one arrow.
Reference: ECE 1995

SLOWER TRAFFIC KEEP RIGHT/TRUCKS USE RIGHT LANE/TRUCK LANE__FEET SIGNS/KEEP RIGHT (LEFT) SIGNS. These US MUTCD 1961 Signs are Mandatory Signs similar to other US Signs of this category. US MUTCD 1971 and newer editions offer graphic forms for Keep Right, Left Signs. However, word forms are retained. Canada has graphic forms for similar signs.
References: US MUTCD 1961, 1971, Canada 1985

SNOWMOBILE ROUTE SIGN/SNOWMOBILE PROHIBITION SIGN. Canada 1976 divides Regulatory Signs into categories based on functional needs. This is f true of US as well. The European experience, by contrast, has created several sub-categories with precise boundaries. Therefore, such a Sign in UN parlance would be partly in Prohibition category and partly in Mandatory category. How-ever the Signs are kept together in the Mandatory category reflecting Canadian practice. The Snowmobile Route displays a snowmobile within a green annular ring while the prohibition has a red ring and oblique bar. The ground of both Signs is white and the snowmobile symbol is in black.
Reference: Canada 1976, US MUTCD editions, UN 1968

TRUCK ROUTE SIGN/ALL TRUCKS COMMERCIAL VEHICLES NEXT RIGHT. These Signs are similar to Signs such as Slower Traffic Keep Right among others.
Reference: US MUTCD 1971

LANE USE RESTRICTION SIGN. This Canadian Sign indicates lanes off limit to a class of vehicle. It portrays a silhouette of a truck with red circle and oblique bar. A downward pointing arrow indicates the lane that is off-limits.
Reference: Canada 1985

YIELD CENTRE LANE TO OPPOSING TRAFFIC SIGN. This Sign added by Canada 1985 is in a word format.
Reference: Canada 1985

ONE WAY SIGN/ONE-WAY SIGNS. These are Signs Giving General Information for UN 1968, but they are Regulatory (with the character of Mandatory Signs) for the US. One version, with an elongated rectangular shape, follows the alternate design for UN Signs. The Sign has a black ground, white rim, white arrow and black lettering. A second form has the standard US rectan-gular shape and customary color and symbol configurations. US MUTCD 1978 adds additional plates for some of these Signs which include graphic symbols. ECE 1995 has this Sign in the Special Regulation category that encompasses Informative and Regulatory Signs. Noble 1946 opines that France may have first employed this Sign since he observed it in France long before its appearance

elsewhere.
References: UN 1968, US MUTCD 1978, ECE 1995, Noble 1946

TUNNEL SIGN. ECE 1995 includes this in the Special Regulation group. It is possibly a Mandatory Sign. Seemingly no other system has this Sign. The Tunnel Sign has the appearance of a tunnel entrance on white insert within a blue ground. It gives special rules for travelling in the tunnel. Ending of those rules is indicated by the same Sign with a diagonal red bar across the Sign panel.
Reference: ECE 1995

KEEP LEFT (RIGHT) DUAL CARRIAGEWAY SIGN/TURN LEFT (RIGHT) ONE WAY ONLY SIGNS. OBS 1950 includes these Mandatory Signs. Both include the two-sign format. They consist of a disc with white ground and red border accompanied by rectangular Sign plate with white ground, black border and black lettering and -- when required -- black arrows. Noble speaks of Dual Carriageway Sign without reference to Keep Left/Right. The meaning may be the same.
References: OBS 1950, Noble 1946

KEEP LEFT/TURN LEFT/KEEP LEFT OF ISLAND SIGNS. These terms are supplied by Noble 1946. They reflect official UK directives of 1946 though later OBS information is somewhat different.
Reference: Noble 1946

KEEP RIGHT EXCEPT TO PASS SIGN. Canada 1976 includes this Sign which indicates that drivers are to stay in the right lane except when passing.
Reference: Canada 1976

LEFT LANE FOR PASSING ONLY SIGN. This Sign from Mexico appears in IAMM 1981. It is rectangular shaped Sign with emphasis on the horizontal dimension and black letters on white ground.
Reference: IAMM 1981

ONE-WAY SIGN (II). CASATC 1950 includes a Sign very similar to UN Direction To Be Followed Sign. However, the ground color is red and the arrow is

yellow.
Reference: CASATC 1950

OVERHEAD PREFERENTIAL ONLY LANE/PREFERENTIAL ONLY LANE SIGN. Terms for category of Signs for these lanes on expressways and freeways. The first term is the fuller term though second term may have more usage. Older term referred to Signs as simply Preferential Signs.
References: US MUTCD 2000, 2003, 1978

PREFERENTIAL ONLY LANE SIGN FOR HIGH-OCCUPANCY VEHICLES (HOV) SIGN. This form of Sign provides instructions on use of speicalized lanes.
Reference: US MUTCD 2003

REVERSIBLE LANE CONTROL SIGN. Sign that indicates lanes that are employed in alternate direction at specified times.
Reference: US MUTCD 2000

ROAD (STREET) CLOSED SIGN/ROAD CLOSED_MILES AHEAD -- LOCAL TRAFFIC ONLY SIGN/ROAD-CLOSED SIGN/ ROAD CLOSED TO THRU TRAFFIC SIGN. These Signs indicate various types and degrees of closures of streets and roads. They are rectangular in shape with a horizontal axis. The ground color is white and letters and numbers are in black.
References: US MUTCD editions

SLOWER TRAFFIC KEEP RIGHT SIGN/SLOWER TRAFFIC KEEP TO RIGHT. The first Sign -- from US MUTCD 1971 -- has a meaning similar to that of Keep Right Except to Pass. The second Sign, from Canada 1976, indicates an added lane for slower traffic.
Reference: US MUTCD 1971, Canada 1976

SLOWER TRAFFIC USE RIGHT LANE. IAMM 1981 includes this Sign for Mexico. It is a rectangular shaped Sign with horizontal emphasis and black letters on white ground.
Reference: IAMM 1981

ENTRY ONLY-ONE WAY STREET SIGN. Peripatetic Noble found this Sign in London. It displays a red disc but instead of "No Entry" it announces entry to a one-way street.
Reference: Noble 1946

TRAVELPATH RESTRICTION SIGN. This US MUTCD Sign divides a path into pedestrian and bicycles portions. A representation of pedestrian and of bicycle accompany left and right (or right and left) word messages. The Sign is black on white ground.
Reference: US MUTCD 1978

3B5 Standing & Parking Signs

STANDING & PARKING SIGNS.
Classification #: 4323
Form of Aid: Unlighted TCD Aid
Operation: Visual messages displayed through vertical Signboards according to recognized practices.
Comments: Parking Signs are an integral part of Regulatory Signs for most systems. For some systems the Parking signs are elements within the spectrum of Regulatory Signs while in other systems they are a separate subdivision. The exception is UN 1968 which separates Standing and Parking Signs from Regulatory and also from Informative Signs since they are partly Informative Signs and Regulatory Signs. In the Database they are kept together in Regulatory except Signs that provide information about parking (e.g., Signs) indicating the location of parking areas.
Reference: UN 1968

EMERGENCY PARKING SIGNS. This term includes Emergency Parking Sign and Emergency Stopping Sign. They are employed ond freeways.
Reference: US MUTCD 1988

PARKING PROHIBITED SIGNS/STANDING & PARKING PROHIBITED SIGNS/ALTERNATE PARKING SIGNS/LIMITED DURATION PARKING ZONE SIGNS/PARKING SIGNS. The Parking Prohibited Sign has an alternate

format approved by UN 1968: circular in shape with white or yellow ground, red border and red transverse bar. A symbol denoting Parking is added in black. A supplemental plate can be added with specifics of the prohibition as well as exceptions to the prohibition. ECE 1995 has the Parking Prohibited Sign in the Special Regulation category; the Sign is assigned here for the Database.

Alternate Parking Signs can be employed instead of the Parking Prohibition Sign when parking is approved on opposite sides of the street. Roman numbers or other symbols indicate the days for authorized parking on each side. The Roman numbers are printed on the Signs.

Additional panels of rectangular shape employing the same color format can be added that give information about parking regulations. These panels are termed: :

Model 1 is a supplementary Sign that indicates the meters that the Sign messages encompasses.
Model 2 gives kilometers accompanied by arrows.
Model 3 gives left, right, bidirectional horizontal arrows in meters.
Model 4 displays vertical arrows: up, down, bidirectional

UN 1968 and ECE 1995 include Additional Panels indicating the scope of parking prohibitions, restrictions. They consist of black arrows on white ground and may include distance in meters of the Sign in question.
References: UN 1968, ECE 1995

HANDICAPPED PARKING SIGN/DISABLED PERSON PARKING SIGN. ECE 1995 includes this Sign with the Additional Panels segment. The Sign displays a pictograph of a wheel chair and person in white on blue ground. US MUTCD 1988 has a Reserved Parking Sign with symbol designating handicapped parking though not under that name. Manitoba and Ontario include the second Sign; official name not know but description of Sign indicates the general notion of the Sign.
Reference: ECE 1995, US MUTCD 1988, Manitoba 2007, Ontario 2003

LIMITED DIRECTION PARKING ZONE EXIT SIGN. This Sign from UN 1968 is square in shape with a light colored ground. A disc with the Parking Prohibition

Sign indication is displayed in light gray with a band diagonally over that message. The band is black, dark gray with an alternate of gray/black stripes.
Reference: UN 1968

RESTRICTED STOPPING OR WAITING SIGN. This Sign from UN 1949 is the equivalent of the UN 1968 Parking Prohibited Sign.
Reference: UN 1949, 1968

WAITING ON ALTERNATE SIDES SIGN. This Sign from UN 1949 is similar to the 1968 Alternate Parking Sign except that two sets of Roman numerals are present: side I (where waiting is prohibited on odd days) is placed on light ground, while side II (where waiting is prohibited on even days) is on dark ground.
Reference: UN 1949, UN 1968

PARKING SIGN. This Sign is regarded as an Informative Sign for UN 1949 and LN 1939. This may help to explain why UN 1968 placed all Parking Signs together outside Regulatory and Informative Signs. Formerly, Parking Signs together were within Regulatory whether restrictive or not. However, UN GERSS 1952 and ECAFE 1964 subsumed all parking-related Signs under Regulatory Signs which is the practice of the Database. For UN GERSS 1952 and ECAFE 1964 the standard format for Regulatory Signs is followed.
Reference: LN 1939, UN 1949, UN GERSS 1952, ECAFE 1964, UN 1968

PARKING PROHIBITED ZONE SIGN/PARKING PROHIBITED AT CERTAIN TIMES ZONE SIGN/PARKING ZONE SIGN/END OF PARKING PROHIBITED ZONE SIGN/END OF PARKING ZONE SIGN. These Signs from ECE 1995 include the standard UN graphic symbols on a rectangular shape with white ground accompanied by the word Zone. The end of restriction Signs displays the symbols in gray with an oblique bar in a band of narrow black stripes. These Signs are part of the Special Regulation category.
Reference: ECE 1995

NO PARKING SIGN/RESTRICTED PARKING SIGN/NO PARKING & NO STOPPING SIGNS. These Signs are terms from IAMM 1967. They follow the

general lines of Regulatory Signs especially of the UN GERSS 1952 style of Sign configurations. The first letter gives the word for parking in the national language. The placing of an oblique bar imposed on it denotes No Parking. A "X" shaped symbol denotes No Parking and No Stopping. The Parking Sign can be accompanied by a supplemental plate adding additional information.
Reference: IAMM 1967, UN GERSS 1952

NO PARKING SIGN/NO WAITING SIGN/PARKING SIGNS/PROHIBITION OF PARKING SIGN. LN 1931 includes a square Sign with blue ground and white "P" for parking permitted areas. The traditional disc with blue ground, red border and oblique bar denotes No Waiting. The addition of "P" indicates No Parking. The older LN 1928 Parking Sign was circular in shape; the LN 1931 Sign is the same except for shape. The 1931 No Waiting Sign displayed a blue ground, red border accompanied by a supplemental plate with the word inscription "No Waiting." Noble 1946 refers to a Prohibition of Parking Sign in UK which follows the European practice. The variant name has the appearance of the No Parking Sign of LN 1931.
Reference: LN 1931, LN 1928, Noble 1946

WAITING PROHIBITED SIGN/STOPPING PROHIBITED SIGNS. The Parking Sign symbols of LN 1939 are followed in newer systems though the names of the Signs are different. A second form of Waiting Prohibited Sign included the word inscription, "No Waiting This Side on Even Dates" but the name of the Sign was unchanged.
Reference: LN 1939

NO PARKING SIGN/NO PARKING__TO__SIGN/NO PARKING EXCEPT SUNDAYS & HOLIDAYS SIGN/NO STOPPING OR STANDING SIGN/ONE HOUR PARKING SIGN/NO PARKING LOADING ZONE SIGN/NO PARKING BUS STOP SIGNS/NO STANDING ANYTIME SIGN. Parking regulation Signs in US MUTCD 1961 and newer editions lack an overarching parking prohibition and restriction format that can be employed and refined through Supplemental Plates. Instead a series of Signs are needed to convey the intended messages. Prohibitive messages are in red while those permitting parking are in green. The Sign plates are rectangular with white ground, red or green rims and

red or green letters and numbers. A Guide Sign giving directions to parking areas has a white ground, is of larger size with green letters and appropriate areas. That Sign is outside of the Regulatory category. These Signs are for urban use. Rural Signs are larger in size than urban forms though they display the same format of white ground, red rims and red word and number messages.
Reference: US MUTCD 1961

NO PARKING ON PAVEMENT SIGN/NO STOPPING ON PAVEMENT SIGN/NO PARKING EXCEPT ON SHOULDER SIGN/NO PARKING SIGN/EMERGENCY STOPPING SIGN/EMERGENCY PARKING ONLY SIGNS. These rural Signs in US MUTCD 1961 were referred to in the previous paragraph. They are found on expressways and have a white ground, black rim and black words. In US MUTCD 1971 symbols are red on white ground except Emrgency Signs which remain black on white. US MUTCD 1978 adds graphic forms for no parking in bus zones and in tow-away zones.
References: US MUTCD 1961, 1971, 1978

NO WAITING THIS SIDE TODAY/WAITING TO LIMITED TO__IN ANY HOUR SIGNS. These Signs are from OBS 1950. The first has a red border, yellow grounds and white or black inscriptions. The second has a blue ground, red border and white inscriptions. They continue the double-sign tradition previously described.
Reference: OBS 1950

NO PARKING SIGN/PARKING SIGNS. CASATC 1950 also divides these Signs between Regulatory and Informative Signs. Parking restrictions display discs with yellow ground, black inscriptions and red borders. Parking Signs are rectangular with blue or yellow grounds and white or black inscriptions. They continue the double-sign tradition previously described.
Reference: CASATC 1950

NO PARKING SIGN/BIKE LANE SIGN. This US MUTCD 1978 Sign has two forms: word form and a graphic form. The word form has red letters on white ground with red rim and the word No in white on red inset. The second form has the traditional red circle and oblique bar on black P accompanied by the words

Bike Lane in red on white ground with red rim.
Reference: US MUTCD 1978

MULTIPLE PARKING CONTROl SIGN. These Canadian Signs have a dual module and triple module forms. The dual form has stopping and parking restrictions; the triple form has stopping, parking restrictions and limited duration information.
Reference: Canada 1976

NO PARKING/BICYCLE LANE SIGN. Sign indicates that no parking, stopping or standing is allowed in bicycle lane.
Reference: US MUTCD 2000

PARKING PROHIBITION SIGNS IN RURAL DISTRICTS. This US MUTCD 1988 Sign was replaced by a more encompassing term in new editions: Parking, Standing and Stopping Signs.
References: US MUTCD 1988, 2000, 2003

PARKING SIGNS IN RURAL DISTRICTS. A US MUTCD 1971 Sign replaced by an altered version in 1988 described in previous entry.

PARKING, STANDING, & STOPPING SIGN. A category Sign encompassing parking and related Signs.
References: US MUTCD 2000, 2003

RURAL PARKING CONTROL SIGNS. Canada 1976 includes a series of Signs under this heading:

RURAL PARKING CONTROL SIGN
RURAL STOPPING CONTROL SIGN

The first Sign has a letter "P" with red circle and oblique bar superimposed on it. The second Sign replaces the "P" with an octagon.
Reference: Canada 1976

SNOW ROUTE SIGN. This Sign indicates that stopping is prohibited during severe snow conditions.

Reference: Manitoba 2007

STOPPING IS PROHIBITED SIGN. This is a Mexican Sign in IAMM 1981. It denotes places where it is forbidden to board or let off passengers.
Reference: IAMM 1981

URBAN NO STOPPING SIGNS. Canada 1976 includes a series of Signs under this heading:

STOPPING CONTROL SIGN
RUSH PERIOD STOPPING CONTROL SIGN
PART TIME STOPPING CONTROL SIGN

The basic Sign displays a black octagon with red circle and oblique bar on white ground with black rim. The second Sign includes hours and days when the basic message is operative. The final Sign has longer periods of operation though less than full time.
Reference: Canada 1976

URBAN PARKING & STOPPING SIGNS. A category in US MUTCD 1988 that was replaced by Parking, Standing and Stopping Signs in newer editions.
Reference: US MUTCD 1988

URBAN PARKING CONTROL SIGN. Canada 1976 has several Signs within this group:

PARKING CONTROL SIGN
PART-TIME SIGN
PARKING LIMIT

The basic Sign displays a black "P" with oblique bar and circle in red on white ground with black rim. The second Sign gives hours and days for part-time prohibition. The Parking Limit Sign has two versions: 30 minute limit on certain days, hours and a 60 minute version
Reference: Canada 1976

3B6 Pedestrian Crossings Signs

CROSS ONLY AT CROSS WALKS SIGN. This Sign from Canada 1976 and US

MUTCD 1971 is in word form. It indicates passage permitted only within specified limits.
Reference: Canada 1976, US MUTCD 1971

EMERGENCY RESTRICTION SIGN. A category that includes Emergency Parking Only, Emergency Stopping Only, and Do Not Stop on Tracks Signs.
References: US MUTCD 2000, 2003

IN STREET PEDESTRIAN CROSSING SIGN. Sign gives reminders of laws for right of way at non-signalized crossings which may include adding the words "State law" to Sign.
Reference: US MUTCD 2000

NO PEDESTRIAN CROSSING SIGN. This Sign from Canada 1976 and US MUTCD editions indicates area closed to movement of pedestrians.
Reference: Canada 1976, US MUTCD editions

PEDESTRIAN CORRIDOR SIGN. A Sign in Manitoba display white graphic on black ground (which is the reverse of crosswalk) and supplemented by flashing lights.
Reference: Manitoba 2007

PEDESTRIAN CROSSING SIGN. ECE 1995 offers a new form of Pedestrian Crossing Sign consisting of a pictograph of a pedestrian crossing zebra stripes that represents a crossing. It has white graphics on a blue ground. ECE also has human representation in black between dashed lines within one triangular inset on blue ground in a square shaped Sign. A white figure on dashed lines on blue ground with white border and a shape suggests a triangle on rectangular base (or pentagram that is nearly triangular). These Signs are in the ECE Special Regulation category.
Reference: ECE 1995

PEDESTRIAN CROSSWALK SIGN/PLAYGROUND CROSSING SIGN/ SCHOOL CROSSING SIGN. Canada 1976 has a distinctive Sign shape and configuration for these Signs: the key word is accompanied by a large bold "X"

signifying crosswalk.
Reference: Canada 1976

RESERVED PARKING FOR PERSONS WITH DISABILITIES. Sign indicates that parking permitted only by those with valid disability permits.
References: US MUTCD 2000, 2003

USE PED SIGNALS SIGN. This is a US Sign for bicycles. It displays those words in black on a white ground with rim and representation of a bicycle in black. Ped is an abbreviation for Pedestrian.
Reference: US MUTCD 1988

YIELD TO PEDS SIGN. This Sign from US MUTCD 1988 is similar to the above Sign except for the word message.
Reference: US MUTCD 1988

USE CROSS WALK SIGN. This Sign from US MUTCD 1978 includes the phrase Use Cross Walk accompanied by an arrow.
Reference: US MUTCD 1978

UNSIGNALIZED PEDESTRIAN CROSSWALK SIGN. Overarching term for several forms of this category of Sign including Stop Sign forms.
Reference: US MUTCD 2003

The following Signs refer to movements of pedestrians controlled by Traffic Signals:

CROSS ON GREEN LIGHT ONLY
CROSS ON WALK SIGNAL ONLY
PUSH BUTTON FOR GREEN LIGHT
PUSH BUTTON FOR WALK LIGHT

Reference: US MUTCD 2003

YIELD HERE TO PEDESTRIAN SIGN. Denotes midblock crosswalk without Signals.
Reference: US MUTCD 2003

3B7 Miscellaneous Regulatory Signs

SIGNING FOR CIVIL DEFENSE/EMERGENCY MANAGEMENT SIGNING. Signs for Civil Defense emergencies have been renamed Emergency Management Signs. The Signs and descriptions are similar under both names. However, some Devices have been renamed. Signs on left (when present) are from US MUTCD 1988 and earlier editions. Signs on right (when present) are from US MUTCD 2000, 2003.

EVACUATION ROUTE MARKER/EVACUATION ROUTE SIGN.
AREA CLOSED SIGN
TRAFFIC REGULATION POST SIGN/TRAFFIC CONTROL POINT SIGN.
EMERGENCY SPEED SIGNS/MAINTAIN TOP SPEED SIGNS
ROAD USE [1961 has Priority instead of Road Use] PERMIT SIGN/ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC SIGNS
EMERGENCY AID CENTERS SIGNS
FALLOUT SHELTER DIRECTIONAL SIGNS/SHELTER DIRECTIONAL SIGNS/EMERGENCY SHELTER SIGNS/CHEMICAL SHELTER SIGN/FALLOUT SHELTER SIGN/HURRICANE SHELTER SIGN

These Signs almost always display black symbols on white ground with black rim. The Evacuation Sign, however, is white on blue ground with white rim. The Fallout Shelter Sign includes the radiation symbol in yellow and black.
Reference: US MUTCD editions

BICYCLE LANE SIGNS. This term encompasses several related Signs. They are employed with Bicycle Lane Symbol Pavement Marking.

BICYCLE LANE AHEAD, an Advance Sign.
RIGHT LANE BICYCLES ONLY SIGN, employed periodically along lane.
BICYCLE LANE ENDS SIGN indicates end of lane.

References: US MUTCD 2000, 2003

DO NOT STOP ON TRACKS SIGN. Sign call for motorists not to stop on tracks; employed when it appears likely that motorists will be inclined to do so.
Reference: US MUTCD 2000

HAZARDOUS CARGO SIGN/HAZARDOUS MATERIALS SIGN. Sign indicates routes overwhich hazardous materials are permitted. The Cargo Sign is from US MUTCD 1988 and 2000; the 2003 edition changed it to Materials.
Reference: US MUTCD 1988, 2000, 2003

NO HITCHIKING. This US Sign followed the word form format in the 1971 edition. US 1978 and newer editions have a graphic symbol displaying hand, thumb, and red circle with oblique bar.
Reference: US MUTCD 1971, 1978

PHOTO ENHANCED SIGN. Sign attached to Regulatory Sign to indicate that the regulation denoted by Sign is under photo surveillance.
Reference: US MUTCD 2003

SHARED-USE PATH RESTRICTION SIGN. Denotes paths shared by pedestrians and cyclists.
Reference: US MUTCD 2003

STAY IN LANE SIGN. Sign employed in Construction and Maintenance zones where lane shifts prohibit changing of lanes by motorists.
Reference: US MUTCD 2003

STOP HERE ON RED SIGN. Indicates stop line before Signal. One of several types of Traffic Signal Signs.
Reference: US MUTCD 2003

TRACK OUT OF SERVICE SIGN. Sign indicates that railroad tracks are in place but out of service.
Reference: US MUTCD 2003

TRAFFIC LAWS PHOTO ENHANCED SIGN. A Sign set up at political boundaries to indicate that some traffic laws under surveillance.
Reference: US MUTCD 2003

CHAPTER FOUR

TRAFFIC SIGNALS

Chapter 4A Indes

4A1 Category Index

Traffic Signals (4B1)
- a) Overarching Terms & General Note for Traffic Signals
  - General Notes I, II
  - Electric Traffic Lights
  - Highway Traffic Signals
  - Light Signals
  - Lighted Traffic Signals
  - Road Signalling
  - Road Signals
  - Signals
  - Signal Lights
  - Signals for Vehicular Traffic
  - Street Traffic Signals
  - Traffic Lights/Traffic-Lights
  - Traffic Light Signals
  - Traffic Signals
- b) Specific Entries
  - General Note
  - Traffic Control Signals
  - Signals for Vehicular Traffic
  - Street Traffic Signals
- c) Messages
  - US MUTCD
  - Canada 1976
  - UN GERSS 1952 & UN ECAFE 1964
  - LN 1928/1931-33/1939

UK 1950
UN 1968
d) Traffic Signal Operations
General Note
Automatic Signals
Fixed-Time Signals/Fixed Time Signals
Manual Signals
Pretimed Signals
Traffic-Actuated Signals
Traffic-Adjusted Signals
Vehicle-Actuated Signals
4B2 Pedestrian Signals
Accessible Pedestrian Signals
Audible Pedestrian Signals
Pedestrian Crossing Signals
Pedestrian Signals/Signals for Pedestrians Only/Pedestrian-Operated Signals
Pedestrian Traffic Lights
Vibrotacticle Pedestrian Devices
4B3 Traffic Signals-Other Forms
Cyclist Signals
Emergency-Traffic Signals/Traffic Control Signals for Emergency Vehicles/Emergency-Vehicle Traffic Control Signals/Emergency Signals
Ferry-Boat Landing Signals
In-Roadway Lights
Low-Flying Aircraft Signals
Miscellaneous Signals
Road Sound Signals
School Crossing Signals/School Area Traffic Signals/School Signals
Temporary Traffic Control Signals
Traffic Signals for One-Lane, Two-Way Facilities
Traffic Signals at Freeway Entrance Ramps/Traffic [Control] Signals for Freeway Entrance Ramps/Freeway Entrance Ramp Control Signals/Ramp Control Signals

Movable Bridge Signals/Drawbridge Signals/Swing Bridges/Traffic Signals at Drawbridges/Traffic Control Signals for Movable Bridges
Lane Control Signals/Lane-Use Control Signals/Lane Direction Signals/ Lane Direction Control Signals/Lane-Direction Control Signals
Portable Traffic Control Signals
Robots
Traffic Lights for Special Vehicles
Traffic Light Signs
Transit Priority Signals

4B4 Flashing Beacons

a) Overarching Terms

Traffic Beacons
Flashing Beacons
Beacons

b) Specific Terms

Flash Lights
Flashing Yellow Beacons/Flashing Red & Yellow Beacons
Hazard Identification Beacons
Intersection Control Beacons
Speed Limit Sign Beacons
Stop Beacons
Stop Sign Beacons
Warning Beacons

4B5 Lighting Devices

General Note
Lighting Devices
Flashing Warning Beacons
Floodlights
Hazard Identification Beacons (Flashing Electric Lights)
Steady-Burning Electric Lamps/Steady-Burn Electric Lamps
Warning Lamps
Type A, Low-Intensity Flashing Warning Lights
Type B, High-Intensity Flashing Warning Lights
Type C, Steady-Burn Warning Lights
Type D, 360-Degree Steady Burn Warning Lights

Special Lighting Units
Advance Warning Arrow Panels/Arrow Panels
Types A, B, C

4B6 Grade/Level Crossing Signals
Active Traffic Control Systems/Active Grade Crossing Warning Systems/Active Traffic Control Devices for Highway-Railroad Grade Crossing
Autoflag
Automatic Flagman
Flashing-Light Signal/Flashing Light Signals
Highway Grade Crossing Warning Devices
Magnetic Flagman
No Right (Left) Turn Signal
Passive Traffic Control Systems
Railroad Grade Crossing Signals
Train Approach Signal/Train-Approach Signal
Traffic Control Signals at or near Highway-Rail Grade Crossing
Traffic Lights at Level Railroad Crossings
Wavelight
Wig Wag Signal/Wigwag Crossing Signal

Note: Part Iv, *Composite Categories Classification and Index,* includes a Sound Traffic Signal segment. The entries are drawn from Bridge, Pedestrian and Grade/Level Crossing Signals. That group is not included here but the Signals in question are listed here. Most or all of them are closely linked to visual TCDs. They include: Movable Bridge Signals (which include Drawbridge and Swing Bridge), Audible Pedestrian Signals, Grade/Level Crossing Signals, and Road Sound Signals. See Signals in several sections of this chapter.

Chapter 4B Traffic Signal Entries

4B1 Traffic Signals

a) Overarching Terms & General Note for Traffic Signals

General Note I. Systems of Traffic Control Devices have long given detailed attention to Traffic Signs. Details on shapes, colors, graphic and other symbols and function are found even in early systems of a simple nature. Traffic Signals, by contrast, have received substantially less attention even in some relatively recent systems. This situation in part has been caused by a limited range of messages for Traffic Signals. Traffic Signals do not require the extensive coverage that Signs require. Nonetheless, the attention given to that form of TCD still seems limited. This is especially the case in European systems (which often extend beyond Europe) that give less coverage, include fewer forms, and often lump diverse forms under a few headings or even a single heading.

UN 1949 does not include Pedestrian Signals, and subsumes Level Crossing Signals under a broader heading ("Supplementary Provisions Concerning Level-Crossings that encompasses Signs, Signals, Sound Signals). UN GERSS 1952 omits Pedestrian Signals, refers somewhat indirectly to Level Crossing Signals and includes the single term of Traffic Signal for lighted TCDs. UN 1968 has more coverage than the previous two systems but, nonetheless, considers Signals under just two headings: Signals for Vehicular Traffic and Signals for Pedestrians.

In other nations, including Japan and many Western Hemisphere nations, the coverage is more substantial. Various Signals are given names in their own right, and more types of Signals are included. Traffic Signals have a larger place in TCD coverage and usage. Even an older document such as US MUTCD 1948 includes a broad range of specific Signal forms.

This situation creates a problem for the Database: UN 1968 provides an overall direction and structure for the coverage yet various Signals are missing in UN documents or at least have a diminished role. To address this problem the

Database has set up an organizational structure that -- though influenced by UN 1968 -- includes Signal forms more familiar outside of UN 1968 and outside Europe. The result may not represent a full correlation of the organization and Signals yet it may prove workable. Notes on differences in approaches to Traffic Signals are included in the coverage of this category.

General Note II. Traffic Signal definitions usually do not include lighted aids that do not have a signal function. Signals call for an action by the motorist that encompasses a choice of options. Other devices have a fixed meaning. These include Lighted Devices in construction or other temporary situation as well as Arrow Panels and Lighted Signs. They have a fixed meaning or -- in the case of Signs -- have a meaning attached to the Sign itself. However, in this Study the entries are based on the nature of the Aid not by the function. So that anything displaying a lighted dimension (save Signs where the Sign role is primary) is placed in this chapter. Therefore Traffic Signal has a more elastic meaning and includes Lighted Aids without an actual signal function.

ELECTRIC TRAFFIC LIGHT. A Wikipedia term for an early Signal and possibly differentiated from coverage of an older UK gas-powered unit.
Reference: Wikipedia

HIGHWAY TRAFFIC SIGNALS. This term may appear to be a specialized form of Traffic Signal and even an archaic form. Yet it is a current and primary term for all forms of Traffic Signals in the US. In fact, most lighted TCD forms but not lighted Signs, Barricade Lights, Warning Lights) are included. Since the term is repeated in successive MUTCD editions the term may be a historic one. It retains pride of place even if not extensively employed elsewhere. Perhaps confusingly, the MUTCD subdivision for this topic is entitled Signals not Highway Traffic Signals. It is obvious that many Traffic Signals are not found on highways at all. A 1996 Proposed documents for a new edition of MUTCD indicated that the bare term of Signal was to be replaced by Highway Traffic Signals.
Reference: MUTCD editions, Notice of Proposed Amendment (NOPA)

LIGHT SIGNAL. A plausible term for Traffic Signals though it fails to appear in any system; one printed source includes it. It is frequently found on Internet

search engines; admittedly the term can encompass diverse forms of Signals.
Reference: Noble 1946

LIGHTED TRAFFIC SIGNAL. A term that appears in Part J. The all-lighted Signal adjoined a partially lighted older UK Semaphore Signal.
Reference: Part J

ROAD SIGNALLING. This is a term in League of Nations publications that refers mostly to Road Signs. Signals had a restricted role in LN and Markings were entirely absent. Signs not Traffic Signals were the focus of the term.
References: League of Nations 1928

ROAD SIGNALS. Zuniga includes this term in a 1969 essay. It may be of informal coinage since it is apparently not otherwise employed. *Protocol on Road Signs & Signals* (UN 1949) does not include Road Signals.
References: Zuniga 1969, UN 1949, LN 1931

SIGNALS. A plausible title yet apparently not often found in the literature. It is a very general term lacking a mode-specific character. International Muncipal Signal Association (IMSA) 1981 includes the term and it is a general heading in MUTCD documents (though not employed otherwise). Signals may be acceptable in a framework of Traffic Control Devices. This is analogous to the use of the bare term Markings when placed in a context of Traffic Control Devices.
Reference: IMSA 1981

SIGNAL LIGHTS. Wikipedia at times speaks of Signals and Signal Lights. Are these synonyms for Traffic Lights? Is Signal Light at variance with Signal? The use of multiple authors and editors may explain the use of multiple terms.
Reference: Wikipedia

SIGNALS FOR VEHICULAR TRAFFIC. This somewhat convoluted term is the primary term for UN 1968. It includes various forms and functions of various signals (Save pedestrian and level-crossing Signals). However, specific terms for Signal within that category are lacking. UN 1949 and UN GERSS 1952 use the more conventional term of Traffic Light Signals.

Reference: UN 1968

STREET TRAFFIC SIGNALS. Webster 1960/1966 is the only source in these studies employing this term. It is comparable to other terms of this category and has little to recommend it over more commonly employed Signal terms.
Reference: Webster 1960/1966

TRAFFIC LIGHT/TRAFFIC-LIGHT. Wikipedia shows a preference for this non-professional term(s) which may reflect an Internet practice. The term is described as "a finite state machine positioned at road intersections ... to indicate when it is safe to drive, ride or walk, using a universal color code." Does the hyphenated form denote specific usages? Among older sources it apparently appears only in Noble 1946 which is largely a historical source.
Reference: Wikipedia

TRAFFIC LIGHT SIGNALS. This is the primary overarching term for UN GERSS 1952, UN 1949, and ECAFE 1964. It has more of an international cast than Traffic Control Signals though there is no specific usage in the Western Hemisphere. UN GERSS and ECAFE coverage of this form of TCD is exclusively under this term. UN 1949 considers Level Crossing Signals separately. It also appears in Noble 1946.
References: UN GERSS 1952, UN 1949, UN ECAFE 1964

TRAFFIC SIGNALS. General Comment. This may appear to be the primary term for Signals in TCD. Yet it is somewhat restricted in usage. Canada 1976, IMSA 1981 and several individual authors employ the term but seemingly there is little use beyond that. US MUTCD editions places the term within () after Traffic Control Signals. It is the general overarching term for the Database since it includes the key words of Traffic and Signal and can encompass many other related terms. Highway Traffic Signals continues to be essential in US practice.

Classification #: 4111
Form of Aid: TCD Lighted Aid
Operation: An all-lighted Device displaying alternating messages according to a pattern which frequently serves multiple-directions.

Comments: Traffic Signal serves as an overarching term for all regular and special forms in this study. It represents regular and special signals even those with separate classification numbers unless otherwise noted.
References: Canada 1976, IMSA 1981, US MUTCD editions

b) Specific Entries

General Note. It is perhaps curious that there are seemingly more overarching terms for Traffic Signals than terms for specific forms of such Signals. Several factors appear to be at work: overarching terms have a dual-purpose: they are overarching and specific at the same time. A second factor suggests that some systems have few Signals and what appears to be overarching may be little more than a reference to Signals with a stop-and-go function. Finally, Signals for some systems have a variety of functions within the overall term but lack names for those specific functions. This segment includes few additional terms though it does include references to previous terms.

TRAFFIC CONTROL SIGNALS. This term -- which is employed in various Western Hemisphere nations -- is quite possibly the most specific term for Signals controlling stop-and-go functions at intersections. It distinguishes between this function and more specialized functions; it also differentiates between terms encompassing many TCD Signal functions, and the specific intersection control function.
References: US MUTCD editions

SIGNALS FOR VEHICULAR TRAFFIC. This term from UN 1968 is an overarching term yet much of its content has reference to stop-and-go operations.
Reference: UN 1968

STREET TRAFFIC SIGNAL. This term from Webster though somewhat vague suggests intersection usage as a primary function.
Reference: Webster 1960, 1966

c) Messages

US MUTCD:
1948:
Three or more lenses: Red, Yellow, Green (in that order)
Yellow means:
Indicates change in message (Y follows G)
Allows Vehicles in/near intersection to clear intersection
Flashing yellow: when stop and go character not required
Arrows: straight through/Left-turn/Right Turn/Wait (Don't Walk)/Walk
Color and Position of Lenses: (Top to Bottom/Left to Right): R/Y/G/
Straight Through/Left-turn/Right-turn/Wait (Don't Walk/Walk).
1961:
Circular Green: Proceed Straight Through, Right, Left
Steady Yellow: Red to follow soon/Green ending
Steady Red: Stop Before Crosswalk/or short of intersection
Greem Straight-Through Arrow: Straight Through, no turns
Green Turn Arrow: 1971 simpler, clearer explanation
1971:
Circular Green: Proceed
Green Arrow: Proceed according to indication of arrow
Yellow Arrow: Green ending; red is about to activate
Circular Arrow: as above
Circular Red: Stop at stop line
Red Arrow: Arrow's direction not to be acted upon
Flashing Red: Stop before proceeding; rules for Flashing Red similar to those for the Stop Sign
Flashing Yellow: A caution Signal
1978:
This is similar to MUTCD 1971 except that 1971 required Sign for Right Turn on red while MUTC 1978, by contrast, required a Sign to prohibit that turn.
1988:
This is similar to MUTCD 1978 except that 1988 Flashing Red Arrow and Flashing Yellow Arrow is added. Meaning is that of Circular Red and Circular Yellow except that the Flashing Arrows directed only to drivers affected by arrows. Proposed amendments for a new edition of MUTCD appear similar to that of 1988 though the format of the material is markedly different. This applies to

the 2000 and 2003 editions as well.

CANADA 1976
Green: Vehicles can proceed straight through, turn left or right (unless turns prohibited)
Amber: Red signal to follow soon
Red: Stop vehicle before cross walk (or edge of intersection if none)
Green Arrows: Proceed following movements
Flashing Green Left Turn Arrow: Motorists can proceed left, right, or straight (unless another TCD prohibits straight or right turn movements)

UN GERSS 1952 & UN ECAFE 1964:
Three-color Signals:
Red: Vehicles are not to go beyond specified point (seemingly national agencies determine that point since it is not given in the document)
Green: The term proceed is not used; instead the message is: "traffic may pass the signal"
Amber: It follows green indication; vehicles not to pass unless too close for a safe stop

Two-color Signals:
Red plus Green: Meaning conforms to that of amber
Single Flashing (Intermittent) Amber: Message is "Proceed with caution"
Single Flashing (Intermittent) Red: Message is "Stop, then proceed with caution"

Vertical arrangement of lenses: Red, Amber, Green

Flashing Red at Intersections: Approved for intersections in these systems in contrast to UN 1968

Level Crossings: Two Red Lens. This parallels Western Hemisphere practice which requires two lens for this role

These systems refers to the needs of the color-blind by remarks about using shape and color to address that problem.

Portugese communication to that Committee provides more specific coverage of Traffic Signals messages:

Red denotes Danger of Prohibition
Green denotes Road Clear
Amber denotes Attention
The order of lenses: red, amber, green

League of Nations:

LN 1928: There are some references to Red Lights but the coverage does not give a solid sense that these constitute Traffic Signals
LN 1931 (Revised 1933):
Red: Stop
Amber: Stop if not already in intersection; proceed through intersection if already in intersection
Green: All Clear
LN 1939: Committee adopted "the principle of the meaning attached to red, amber, and green lights" which may suggest that a full coverage of Traffic Signal communications had not been implemented. But the work of 1939 was not completed.

UK (Tripp) 1950:

Red: Stop, stay behind Stop Line
Red & Amber: This combination indicates Stop "but be prepared to go when the Green shows"
Green: Proceed
Amber: Stop unless in or very near to intersection
Green Arrow with Red Indication: Proceed according to meaning of arrow

UN 1968:

Non-Flashing:
Green: Proceed
Red: Do Not Proceed (Beyond Stop Line, equivalent)
Amber: Do Not Proceed unless vehicles proximity to stop line would make stopping unsafe
Flashing:

None in two-color or three-color system
Green Arrow: Movement according to arrow
Red, Amber Arrows: None in UN 1968

ECE 1995: Messages are similar in meaning to UN 1968 though with some changes:
Arrows can replace the solid colors of Red, Amber, Green (This has reference to situations other than lane directions).
Arrows have one of two forms: Colored arrows on black background, or black arrows on colored background.

d) Traffic Signal Operations

General Note. The terms of this segment are not directly Traffic Signal terms. Yet the terms of operations are often attached to the term Signal and thereby become a Signal term even if not in a physical or functional sense. Some systems do not refer to the operational dimension though other systems make that reference. Such terms are included for that reason.

AUTOMATIC SIGNALS. This term is found in some UK sources. It refers to a mechanical Signal in contrast to trafffic control by police officers.
References: Trip 1950

FIXED-TIME SIGNALS/FIXED TIME SIGNALS. Some UK sources and MUTCD 1948 use this term. It is the equivalent of a Pretimed Signal.
References: US MUTCD 1948, Trip 1950

MANUAL SIGNALS. In some UK literature this term refers to police traffic regulation. Compare to Automatic Signals.
References: Trip 1950

PRETIMED SIGNALS: These Signals follow a predetermined pattern generated by electromechanical or electronic means. A series of Signals can be coordinated according to a schedule.
References: US MUTCD 1961, 1988

TRAFFIC-ACTUATED SIGNAL. These Signals operate according to traffic flow demands. A version known as Full Traffic Actuated refers to a Signal at an intersection where all approaches are actuated by traffic. Semi-Traffic Actuated Signals indicates Signal operation where only secondary approaches are actuated by traffic demand.
Reference: US MUTCD 1948

TRAFFIC-ADJUSTED SIGNAL. This term appears in MUTCD 1961. It is a form of Traffic-Actuated Signal in which adjustments in operations are made after monitoring traffic patterns over a broad area. The resulting pattern affects a series of installations.
Reference: MUTCD 1961

VEHICLE-ACTUATED SIGNALS. This UK term has the meaning of a Traffic-Actuated Signal.
References: Webster 1960, Trip 1950

4B2 Pedestrian Signals

ACCESSIBLE PEDESTRIAN SIGNALS. Term for Signal with non-visual messages including audible, verbal, vibrating Signals.
Reference: US MUTCD 2003

AUDIBLE PEDESTRIAN SIGNAL. Term for a Signal that includes a sound dimension for the visually impaired. Sounds can include chimes and bird-calls.
Reference: Kuemmel 2000

PEDESTRIAN CROSSING SIGNAL. Lay 1990 refers to Signals for pedestrian crossings. Possibly pedestrian crossing and Signal were conflated in T-M studies and resulted in this term.
Reference: Lay 1990

PEDESTRIAN SIGNALS/SIGNALS FOR PEDESTRIANS ONLY/ PEDESTRIAN-OPERATED SIGNALS. General Comments. These Signals are for pedestrians rather than vehicles though they are tied to motor vehicular

movements and interact with Traffic Signal actions. Pedestrian Signals may be pre-timed or pedestrian-actuated. Only newer systems include these Signals. UN 1949 and UN GERSS 1952 both omit the Signal. Canada 1976 includes a Pedestrian Signal function though there is no specific title for the Signal. The last-named term is from Tripp 1950 and is the equivalent of the more commonly employed terms.

Classification #: 4112
Form of Aid: TCD Lighted Aid with possible sound and tactile dimensions.
Operation: A traditional all-lighted Aid with word and graphic symbols for pedestrian.
Comments: Sound and tactile elements have been added to some Pedestrian Signals. Signals linked to general Traffic Signal operations.
References: UN 1949, UN GERSS 1952, Canada 1976

The message component is made up of various forms of lights, words, and graphic symbols:

UN 1968 (and ECE 1995) employ non-flashing forms in a three-color version. Green indicates crossing may be made safety. Amber indicates do not cross but if in roadway continue movement. Red indicates vehicles are not to enter roadway. A two color form that includes a flashing green indication denoting the crossing period is nearly over and the red indication is about to be initiated. The two-color forms is regarded as preferable to three-color forms though the later is permitted. Lenses in these Signals display silhouettes of pedestrians: a standing figure for red and a walking figure for green.

US MUTCD 1948 employed standard Traffic Signal housing with circular lenses. The lens had an orange ground, black horizontal band the words "Walk" or "Wait" etched on the glass. Wait/Walk messages were changed to Walk and Don't Walk because the original messages have a similar appearance. A second form used neon tubing with the word messages of "Walk" and "Don't Walk"; both messages were to be in red.

US MUTCD 1961 used the message of Walk and Don't Walk exclusively. There

were two approved means of conveying the message: Green (Walk) and Red (Don't Walk) in gas-filled tubing, and White (Walk) and Orange (Don't Walk) in incandescent lighting. White contrasts with the latter Lunar White as does Orange with Portland Orange.

US MUTCD 1971. Messages were displayed from rectangular shaped units with negative (stop) messages in Portland orange, and positive (go) messages in Lunar white. The Don't Walk message displayed fixed lights which denoted no movements are to be made. A flashing message indicated the Walk message was turning to a Don't Walk message denoted too little time remained for a safe crossing. A steady Walk message indicates safe passage while a flashing message denotes vehicle-pedestrian conflict possible. US MUTCD 1978 continued the two box form of 1971 but also added a single box form for both messages. A graphic symbol was added in this edition that displayed a Portland orange hand and a Lunar White pedestrian sihouette; the older green and red gas-filled tubing form was dropped. US MUTCD 1988 has a similar pattern of technology and messages; that edition adds a single box form for both graphic symbol and word forms.

Canada 1976 displays a two-box form with orange and lunar white messages. Only the graphic symbols of orange hand and lunar white pedestrian are used.

PEDESTRIAN TRAFFIC LIGHTS. Term is a variant form from Wikipedia.
Reference: Wikipedia

VIBROTACTILE PEDESTRIAN DEVICE. This Device employs a vibrating surface sensitive to touch for indicating the signal message.
Reference: MUTCD 2000, 2003

4B3 Traffic Signals-Other Forms

CYCLIST SIGNALS. UN 1968 refers to messages for a Traffic Signal employed for cyclists though no actual name is given. T-M Studies may have extrapolated the term from UN publications. The signal can include a graphic symbol of a cyclist on the Signal lens.

References: UN 1968, Part E

EMERGENCY-TRAFFIC SIGNALS/TRAFFIC CONTROL SIGNALS FOR EMERGENCY VEHICLES/EMERGENCY-VEHICLE TRAFFIC CONTROL SIGNAL/EMERGENCY SIGNALS. The basic term refers to a Signal that creates a right-of-way for emergency vehicles. The physical Signal form is similar to that of a standard Traffic Control Signal. A Sign indicating emergency services accompanies the Signal. UN 1968 refers to fire-fighting vehicles only. MUTCD 2003 employs the third term. The last term is found in T-M classifications.
References: UN 1968, ECE 1995, US MUTCD editions

FERRY-BOAT LANDING SIGNALS. UN 1968 provides a signal message for Traffic Signals at Ferry-Boat Landings but does not give this Signal an actual name. The compiler may have coined the term from UN documents.
Reference: Part E, UN 1968

IN-ROADWAY LIGHTS.Term for lights built into roadway. Messages indicate upcoming conditions that may require slowing or stopping. They are a special form of Traffic Signal though termed "Lights".
Reference: US MUTCD 2003

LOW-FLYING AIRCRAFT SIGNALS. UN provides a message description for Signals for low-flying aircraft but thee is no actual Signal name. The term may be coined from UN coverage of the message for these studies.
Reference: Part E, UN 1968

MISCELLANEOUS SIGNALS. This term is a classification term for the Series. It includes Signals for Low-Flying Aircraft and Ferry-Boats.
Reference: Parts E, H

ROAD SOUND SIGNALS. A term in Part J that was coined to distinguish Road Signals from rail, road, marine, aero Signals that were in close proximity.
Reference: Part J

SCHOOL CROSSING SIGNALS/SCHOOL AREA TRAFFIC SIGNALS/

SCHOOL SIGNALS. Various terms are employed for regular Traffic Signals employed in school areas. These Signals have a pedestrian safety function. Flashing Beacons are also employed.
References: US MUTCD editions

TEMPORARY TRAFFIC CONTROL SIGNALS. Terms for Signal employed in construction and other temporary traffic control zones.
Reference: MUTCD 2003

TRAFFIC SIGNALS FOR ONE-LANE, TWO-WAY FACILITIES. This Signal appeared in US MUTCD 1978 though it seems likely that such a Signal existed before 1978. The Signal is intended for a bridge or tunnel too narrow for two vehicles to pass one another. While US MUTCD 1978 speaks of tunnels or bridges it would seem that narrow roads or damaged sections of roads would also require the Signal. Standard Traffic Signals are employed though conditions for use differ from standard Signals: the one-lane, two-way situation has a unique character: it assigns the right of way priority on an alternating basis for the same lane.
Reference: US MUTCD 1978

TRAFFIC SIGNALS AT FREEWAY ENTRANCE RAMPS/TRAFFIC [CONTROL] SIGNALS FOR FREEWAY ENTRANCE RAMPS/FREEWAY ENTRANCE RAMP CONTROL SIGNALS/RAMP CONTROL SIGNALS. This Signal controls vehicles entering a freeway by admitting vehicles in increments through Traffic Signal indications. The Signals are of standard design and have at least two colors (Red and Green) and may add Yellow. This Signal is found in US MUTCD 1978. FHA (Amendments) replaces "at" with "for." 2003 adds "Control". The last two terms are from 1988.
Reference: US MUTCD editions

MOVABLE BRIDGE SIGNALS/DRAWBRIDGE SIGNALS/SWING BRIDGES/TRAFFIC SIGNALS AT DRAWBRIDGES/TRAFFIC CONTROL SIGNALS FOR MOVABLE BRIDGES. US MUTCD 1978 and 1988 employ a new term that better describes bridges that move by rising or by revolving: Movable Bridge Signal indicates times when it is unsafe to proceed. Drawbridge

Signal is the most common term for these Signals. UN 1968 includes Signals for bridges within the Signals for Vehicular Traffic category. No specific name is given for the Signal that refers to swingbridges. Three-color Signals for Bridges display these messages: constant green indicates bridge is open to traffic; if long periods occur without closing the bridge then Flashing Yellow can be used. Red is for stop. FHA 1997 includes the last named term for the new edition of MUTCD.
References: US MUTCD 1978, 1988, UN 1968

LANE CONTROL SIGNALS/LANE-USE CONTROL SIGNALS/LANE DIRECTION SIGNALS/LANE DIRECTION CONTROL SIGNALS/LANE-DIRECTION CONTROL SIGNALS. These multiple and variant terms apply to Signals regulating traffic for a given lane. The Signal is employed where periodical reversing of traffic is controlled (for example, rush hour variations of a temporary nature). The Signal refers largely to Canada and the US.

Messages include:
- Downward Green Arrow: Lane Open
- Steady Yellow "X": Vacate Lane/Lane to Close
- Steady Red "X": Lane Closed
- Flashing Yellow "X": Left Turn Permitted

References: Canada 1976, US MUTCD editions

PORTABLE TRAFFIC CONTROL SIGNALS. Term for a regular Traffic Signal that is needed for more than 30 days. A construction or maintenance project can extend the use of the Signal.
Reference: US MUTCD 1978

ROBOTS. A perhaps curious term for a standard Traffic Signal.
Reference: CASATC 1950

TRAFFIC LIGHTS FOR SPECIAL VEHICLES. This is a Wikipedia term for Signals in a special category of vehicles including buses and trams. Variant light systems can include light bars of white light in vertical or horizontal patterns.
Reference: Wikipedia

TRAFFIC LIGHT SIGNS. CASATC term for Traffic Signals. There are no Traffic Signs involved with the Device.
Reference: CASATC 1950

TRANSIT PRIORITY SIGNAL. Manitoba and Ontario include this Signal which allows transit buses to have precedence over other traffic. A standard Traffic Signal adds a circular black ground with vertical white bar when on. See Also Traffic Lights for Special Vehicles.
References: Manitoba 2007, Ontario 2003

4B4 Flashing Beacons

a) Overarching Terms

TRAFFIC BEACONS. This seems to be an under-used term. Only a few US trade publications of a generally date vintage include the term. Yet it seems a plausible overarching term paralleling Traffic Signal and Traffic Marking.
References: G.E. 1947, Eagle Signals

FLASHING BEACON. General Comments. This term is probably the most important overarching term for this category and the most important specific term. The term Signal often refers to a T-M form with multiple and changing messages. Beacon, by contrast, has an unchanging message (even if multiple or multi-faceted). Railway and road lighted forms are often viewed as Signals while marine and aero forms are often of the Beacon form. The Flashing Beacon resembles a marine Aid to Navigation in its functioning.

The Flashing Beacon is associated with a variety of Western Hemisphere nations as well as some Eastern Hemisphere nations (including Japan). It has a limited role in LN and UN systems. In fact, the Flashing Beacon with red lens is prohibited in UN 1968 for intersection control. By contrast, UN GERSS 1952 included both amber and red forms. Nations employing the Flashing Beacon have continued to do so after UN 1968. UN 1968 refers to several functions for the Flashing Beacon within the Traffic Signals for Vehicular Traffic category excluding the function noted above. UN 1968 permitted uses include a Signal for

low-flying airplane, and ferry-boat landing warnings. UN 1949 and UN 1968 allow for a single red lens at level-crossings; that contradicts the practice of nations that require two flashing lenses at crossings. Noble 1946 notes the use of flashing red lights (the term Flashing Beacon is not included) in France but that predates the UN systems. The older forms of the Flashing Beacon are of a unitary nature (housing of one unit with multiple lenses) while newer forms contain one or more segments of a single Traffic Signal housing.

The term Flashing Beacon is employed in Canada 1976, older editions of US MUTCD and in some traffic control and engineering literature. A logical alternative to Flashing Beacon would be the infrequently used Traffic Beacon.

US MUTCD 1971 and newer editions have largely eliminated the term Flashing Beacon; they instead use terms for specific forms: Hazard Identification, Speed Limit, Intersection Control, and Stop Beacons. The core term Beacon is included in newer editions of MUTCD. US MUTCD 1948 includes the color in the titles: Flashing Yellow Beacon, Flashing Red & Yellow Beacon. Succeeding editions of MUTCD vary in their treatment of Flashing Beacons. Some editions have brought the diverse forms of Flashing Beacons together while in other editions a more separated format is employed.

Classification #: 4121
Form of Aid: TCD Lighted Aid
Operation: Unvarying flashing messages though alternating for different directions of traffic (Yellow for caution; red for stop until road is clear).
Comments: There is no general consensus on the name for this Device. But Flashing Beacon constitutes an acceptable overarching term.
References: Canada 1976, US MUTCD 1961

BEACON. Older US MUTCD editions include Flashing Beacons; newer editions refer to specific forms with occasional references to Beacons as a generic term.
References: MUTCD editions

b) Specific Terms

FLASH LIGHTS. CASATC term for a red flashing light. There are two versions. One type with triangular-shaped sign denotes danger. The second version with a double sign of circular and rectangular shape denotes prohibition.
Reference: CASATC 1950

FLASHING YELLOW BEACON/FLASHING RED & YELLOW BEACON. US MUTCD 1948 includes the color(s) in the official name of Flashing Beacons. The Beacons in question conform to current forms under other names. US MUTCD 1948 does not include a Beacon under the title of Flashing Red Beacon and there is seemingly no reference in the literature. Though, of course, a Flashing Beacon with red-only lens is commonplace.
Reference: US MUTCD 1948

HAZARD IDENTIFICATION BEACON. US MUTCD 1971 and newer editions employ this term. Its functions existed before the title was employed. It consists of at least one circular yellow lens. It can mark obstructions, supplement Warning Signs, mid-block crosswalks and act as supplement to a variety of Regulatory Signs. See Also: Warning Beacon.
Reference: MUTCD 1971

INTERSECTION CONTROL BEACON. This form of Flashing Beacon may be the oldest form of this type of Signal. It is employed in a number of nations. This Beacon may have yellow-only lens, yellow and red lenses, or red-only lenses. At least two directions of traffic are covered by the Beacon. For Canada this is labeled a Flashing Beacon. At All-way Stops there are red lenses only.
References: US MUTCD 1971 and newer additions

SPEED LIMIT SIGN BEACON. This Beacon consists of one or two flashing yellow lenses accompanying a Speed Limit Sign. It is found in US MUTCD 1971 and newer editions. The 1988 edition allows a single lens version when the lens is oversized.
References: MUTCD editions

STOP BEACON. This Beacon seemingly replaces and broadens the older Stop Sign Beacon. It is employed as a supplement for Stop, Do Not Enter, and Wrong

Way Signs.
Reference: US MUTCD 2003

STOP SIGN BEACON. This MUTCD form accompanies a Stop Sign. It has one or two segments of a standard Traffic Signal and displays a flashing red light.
References: US MUTCD 1978

WARNING BEACON. FHA 1997 changes the name of the Hazard Identification Beacon for the new edition of US MUTCD.
Reference: FHA 1997

4B5 Lighting Devices

General Note. US MUTCD includes a variety of Lighting Devices for Construction and Maintenance purposes. The Devices are not confined to the US though only the MUTCD has extensive coverage. Other sources, including Noble 1946, make references to Lights for special purposes including obstructions. These Devices include:

LIGHTING DEVICES.
Classification #: 4126
Form of Aid: TCD Lighted Aid
Operation: A largely non-signal Device that displays flashing or fixed Lights primarily at construction/maintenance sites.
Comment: Lighting Devices supplement Signs, Barriers, Channelizing Devices. Some forms of Beacons can be included when in a Construction and Maintenance context.
References: US MUTCD 2003.

FLASHING WARNING BEACON. A form of Lighting Device that supplements Temporary TCD forms. The beacon operates continuously and denotes changing conditions in roadways and other functions.
Reference: US MUTCD 2000, 2003

FLOODLIGHTS. These Lights are included in this study since they can have

direct bearing on flagger stations and crossing zones in construction areas.
Reference: US MUTCD 2003

HAZARD IDENTIFICATION BEACONS (FLASHING ELECTRIC LIGHT) . An older term for what is now termed Flashing Warning Light. Beacon may have suggested a signal Beacon.
References: US MUTCD 1971

STEADY-BURNING ELECTRIC LAMPS/STEADY-BURN ELECTRIC LAMPS. These Lamps are of low wattage and yellow in color. They mark obstructions and barriers, and are added to longitudinal barriers for delineations of vehicles lanes through construction zones.
Reference: US MUTCD 1988 (L), 2000, 20003 (R)

WARNING LIGHTS. These are portable units with lenses, and yellow in color. They can be either steady-burning or flashes. There are three formss:

TYPE A, LOW-INTENSITY FLASHING WARNING LIGHTS employed on Barricades, Drums, Vertical Panels, advance warning situations.

TYPE B, HIGH-INTENSITY FLASHING WARNING LIGHTS found at advance warning sites, or operates independently.

TYPE C, STEADY-BURN WARNING LIGHTS delineate detour-curve edges, lane changes, lane closures.

TYPE D, 360-DEGREE STEADY BURN WARNING LIGHTS

References: MUTCD editions

SPECIAL LIGHTING UNITS. These Units are trailer-mounted and supplement Signs, Pavement Markings, maintenance lighting.
References: US MUTCD 1971 and newer editions

ADVANCE WARNING ARROW PANELS/ARROW PANELS. These are "sign panels with matrice of lights" that supplement other TCD forms. There are three forms:

Type A, Low speed urban streets functions.

Type B, "Intermediate facilities for maintenance or moving operations

on high-speed operations."
Type C, "[H]igh-speed, high-volume construction projects [.]"
Messages are of four forms:
Left/Right Arrows- Flashing, sequential
Left/Right Chevrons- Sequential
Double Arrows- Flashing
Caution- Multiple lamps, direction not indicated
Arrow Panels is the short form of the term.
References: MUTCD editions

4B6 Grade/Level Crossing Signals

ACTIVE TRAFFIC CONTROL SYSTEMS/ACTIVE GRADE CROSSING WARNING SYSTEM/ACTIVE TRAFFIC CONTROL DEVICES FOR HIGHWAY-RAILROAD GRADE CROSSING. These terms refer to flashing lights and gates at crossings. See Also: Passive Traffic Control Systems
References: MUTCD 2000, 2003

AUTOFLAG. Corporate name for one brand of Wig-Wag Signal. Bryant Zinc Co seemingly did not use the term Wig-Wag. They described the Signal as an "Automatic Swinging Disc and Light Crossing Signal."
References: Bryant Zinc Co. in http://hom.att.net

AUTOMATIC FLAGMAN. This term has been referred to as a Wig-Wag Signal though of a different configuration. When activated it displayed a swinging disc. The disc could be hidden behind a Sign reading "Look Listen" when not in use or the Disc could be seen but stationary. One brand of this was the Union Three Aspect Automatic Flagman.
References: King 1921, Solomon 2001, Brignano & McCullough 1981

FLASHING-LIGHT SIGNAL/FLASHING LIGHT SIGNAL. This term (and variant form) refers to Railroad Crossing Signals. It consists of two horizontal red flashing lights and indicates the presence of a train on the tracks on or near the crossing. MUTCD 1988 omits the hyphen. Single lens are allowed in UN practice which creates confusion with the Flashing Beacon in nations where such Beacons

are employed. UN 1949 has a section on level crossings but no specific name for Signals at level-crossings. UN 1968 subsumes level crossings into the Signals for Vehicular Traffic category. MUTCD 2000, 20003 speak of two forms: Post Mounted and Overhead Structures.
References: US MUTCD editions

HIGHWAY GRADE CROSSING WARNING DEVICES. A term appearing in Part J of this Series. It is possibly a conflation of various terms that results in a general term. Possibly a currently non-located sources is responsible for the term.
Reference: Part J

MAGNETIC FLAGMAN. A Wig-Wag Signal produced by the Magnetic Signal Company.
Reference: Wikipedia

NO RIGHT (LEFT) TURN SIGNAL. US MUTCD 1961 includes this as a Signal. The device consists of a Sign topped by a flashing yellow Marker Lamp. Only this edition lists it as a Signal. MUTCD 1971 speaks of Sign but without mention of the Marker Lamp.
Reference: US MUTCD 1961

PASSIVE TRAFFIC CONTROL SYSTEMS. Term seemingly refers only to railroad crossings and Signs and Pavement Markings at crossings.
Reference: US MUTCD editions

RAILROAD GRADE CROSSING SIGNAL. General Comment. This is the equivalent of the Flashing-Light Signal though with a more explicit title. Flashing-Lights Signals tends toward vagueness outside of a railroad-crossing context. This term may be exclusive to US and listed in US MUTCD 1971. (It can be noted that IAMM 1967 reprints parts of US MUTC 1961 and thereby includes the term). Older editions of MUTCD employ the overall category heading of Railroad-Highway Grade- Crossing Protection while newer editions use Traffic Control Systems for Railroad-Highway Grade Crossings for the same purpose.

Classification #: 4126

Form of Aid: TCD Lighted Aid with possible sound and unlighted dimensions.
Operation: A multifaceted Device marking crossings. Flashing red lights are basic. Gates with Lights and Bells may be present.
Comments: Term includes diverse Aids which can include Level as well as Grade in the name. Diverse terms in this segment are subsumed by this term.
Reference: US MUTCD 1971, IAMM 1967

TRAIN APPROACH SIGNAL/TRAIN-APPROACH SIGNAL. This term and the variant form are catch-all terms for all forms of Lighted Safety Aids at Railway/-road crossings. It may be accompanied by the words "And Gates". The term refers mostly to the Western Hemisphere.
References: Canada 1976 (lst term), US MUTCD 1971 (2nd term)

TRAFFIC CONTROL SIGNALS AT OR NEAR HIGHWAY-RAIL GRADE CROSSING. Only the Signal part of the term may be a TCD while the remainder gives its specific locale. The Signal is employed at industrial sites and other places where train operations are very slow, intermittent such as for switching.
Reference: MUTCD editions

TRAFFIC LIGHTS AT LEVEL RAILROAD CROSSING. A Wikipedia variant terms that includes European and non-Western Hemisphere term of "Level."
Reference: Wikipedia

WAVELIGHT. Alternate term for Automatic Flagman. The mechanical movement of the metal flag was intended to simulate the waving of a red lantern by a railway worker. It was introduced by L.S. Brach Co. in 1912.
Reference: WRSC 1948

WIG WAG SIGNAL/WIGWAG CROSSING SIGNAL. A now obsolete Signal consisting of a red light mounted in a disc attached to a mechanism that acts as a pendulum. The second term offers a variant form.
References: US MUTCD 1948, 1961, King 1921

CHAPTER FIVE

TRAFFIC MARKINGS

5A Indexes: Category and Alphabetical
5A1 Category Index

Overarching & Sub-Overarching Terms with General Notes (5B1)
a) Overarching Terms with General Notes
General Notes I, II, III
Road Markings
Traffic Markings
Marking
Road Marking System
Marking & Delineation Devices
Marking Devices
Marking Systems
On-The-Roadway Markings
Road Marking & Delineation
Roadway Markings
Highway Markings
Carriageway Markings
Road/Traffic Markings
b) Sub-Overarching Terms
1) Broader Terms
Alphanumeric Markings
Graphic Markings
Horizontal Markings
Horizontal Pavement Markings
Horizontal Signing
Pavement Markings
Pavement Surface Markings
Road Surface Markings
Road Delineation
Traffic Delineation Markings

Surface Markings
2) More Restricted Forms
Barricades & Channelizing Devices
Hazard Markings
Longitudinal Markings
Marked Surfaces
Multiple-Directions Markings
Object Markings
Obstruction Marking
Vertical Markings
Transverse Markings

Pavement & Curb Markings (5B2)
a) Longitudinal Markings
Longitudinal Markings
1) Center Line Markings
Center Line/Center-Line Markings/Centerlines/Center Markings/
Centerline Stripes/Pavement Centerlines
General Note
Centerline Markings for Shared-Use Paths
Directional Dividing Line
Double Center Lines
2) Edge Lines
Edge Lines/Edge Line Markings/Edge Line Pavement Marking/Edge
Markings/Edge-Markings/Edge of Carriageway Markings/Pavement
Edge Lines/Pavement Edge Line Markings/Pavement Edge
Markings/Border Lines Indicating the Limits of the Carriageway/
Carriageway Edgeline/Carriageway Limit Lines
3) Lane Markings
Channelizing Lines
Lane Lines
Lane Lines at Controlled Intersections
Lane Markings
Lane Reduction Transition Markings
Pavement-Width Transition Markings

Reserved Lane Markings
Road Markings for a Lane Reserved for Certain Categories of Vehicles
Temporary Lane Markings
Traffic Lane Markings

4) Other Longitudinal Markings
Continuous Lines for "Particular Situations"
Guide Lines for Turning Vehicles/Turn Markings/Turning Movements Of Vehicles Markings
Lane Lines & Right Edge Line Pavement Markings/Centerlines & Left Edge Line Pavement Markings/Yellow Centerline Pavement Markings/White Lane Pavement Markings/Lane Line Pavement Markings
Longitudinal Pavement Markings
Markings for Bicycle Lanes
Markings of Obstructions [Dual Category]
Markings at Particular Locations
Markings for Particular Situations
Marking Extensions Through Intersections or Interchanges/Pavement Marking Extensions Through Intersections
Markings for Other Circular Intersections
Markings for Roundabout Intersections
No-Passing Zone Markings/No-Passing Markings
Paved-Shoulder Markings
Pedestrian Lines
Street Clearance & Transit Vehicle Guide Lines

b) Transverse Markings
Transverse Marking
Cross-Walk/Crosswalk Lines/Crosswalks/Crossing Markings/ Pedestrian Crossings
Cyclist Crossings
Intersection Makings
Lines Indicating Points at Which Drivers Must Give Way
Oblique Parallel Lines
Railroad Crossing Markings/Railroad Crossing Advance Markings/ Railroad-Highway Grade Crossing Pavement Markings/Approaches

to Railway Crossing Markings/Highway-Rail Grade Crossing Pavement Markings
Stop Lines/Stop Bars/Limit Lines
Transverse Lines at Controlled Junctions/Transverse Lines at Uncontrolled Junctions

c) Other Pavement & Curb Markings
Advanced Speed Hump Markings
Arrow Markings/Legend & Symbols/Word Markings/Word Messages/ Word & Symbol Markings/Arrows
Approach Markings for Obstructions in Roadway/Markings of Obstructions
Bicycle Detector Markings
Colored Pavement
Curb Markings/Curb Markings for Parking Restrictions
Directional Markings
Dynamic Envelope Delineation Markings/Dynamic Envelope Markings/ Dynamic Envelope Pavement Markings/Train Dynamic Envelope Pavement Markings
Exit & Entrance Interchange Ramp Markings
Intersection Pavement Markings
Median Islands Formed by Pavement Markings
No-Passing Pavement Markings
Parking Markings/Parking Space Markings/Marking of Parking Space Limits/Parking Space Lines
Paved-Shoulder Markings
Preferential Lane Word & Symbol Markings
Preferential Lane Longititudinal Markings for Motor Vehicles
Reflective Pavement Legends
Speed Hump Markings
Speed Measurement Markings
Standing & Parking Regulations Markings
Stop & Yield Lines Markings
Yield Lines

d) Physical Pavement Markings Forms
General Note

1) Raised Pavement Markers
    Raised Pavement Markers
    Bi-Convex Reflectors
    Cats-Eyes/Cats Eye-Retro Reflectors
    Corner-Cube Reflectors
    Lens-Type Reflector
    Luminous Mark
    Non-Reflective Markers
    Non-Retro-Reflective Markers/Non-Retro Reflective Markers/
        Non-Retro-Reflective Ceramic Markers/Non-Retro-
        Reflective Buttons/Non-Retro-Reflective Raised Pavement
        Markers/Nonretro-Reflective Buttons
    Protruding Markers
    Raised Markings/Raised Horizontal Markings
    Raised Pavement Markers (RPMs)
        Raised Reflective Pavement Markers/Raised Reflective
            Markers/Reflective Pavement Markings/Markers
        Snowplowable Reflective Markers/Recessed Reflective Marker
    Raised Marking Systems
    Raised Retro-Reflective Markers
    Reflector Studs/Reflecting Road Studs/Catseyes
    Reflecting Button
    Reflective Markers
    Retro-Reflection
    Retro-Reflectorized Buttons
    Retro-Reflective Markers
    Retro-Reflective Marks
    Reflex Reflectors
    Rumble Strips/Rumble Stripes/Audible Roadway Delineation
    Self-Luminous Reflectors
    Studs
2) Traffic Marking Physical Terms-Morphological/Physical
    General Note
    Amber Markers/Green Markers/Red Markers
    Bi-Directional Red & White Retro-Reflective Markers

Bi-Directional Edgeline Markers
Cats Eye Centerline Marking
Channelization Markers
Edgeline Raised Markers
Painted Lines
Raised Reflective Lane Markers

3) Other Horizontal Markings
Ceramic Marker
Collimating System
Coloured Cement Concrete Marking
Electrically Powered Emissive Markings
Expendable Markers
Formed-in-Place Markers
Hot-Applied Surface Marking
Magnetic Markers
Paint Markings
Pavement Surface Markings
Radioactive Emissive Markers
Snap-over Markers
Surface Dressing Markings
Traffic Paint Markings

5B3 Hazard & Delineation Markings

a) Hazard/Obstruction Markings
General Note
Approach Markings for Obstructions
Hazard Markers
High-Level Warning Devices (Flag Trees)
Clearance Markers
Markers for Objects in the Roadway/Markers Adjacent to the Roadway
Markings for Objects in the Roadway/Markings Adjacent to The Roadway
Markings of Obstructions
Object Markers, Types I, II, III
Object Markers on Shared-Use Path

Obstruction Pavement Markings/Pavement Markings for Obstructions
End of Road Marker/End-of-Roadway Markers/End-of-Roadway Markings
Reflective Markers

b) Delineators
General Notes
Delineators/Road Delineators/Road-Edge Delineators, Post Mounted Markers/Post-Mounted Delineators/Road-Edge Delineator Markers/Shoulder Delineation Markers/Roadside Delineators/Road-Delineation/Post Delineators/Road-side Delineators/Roadway Delineators
Delineators-Curb/Delineators
Guide Markers/Guide Posts
Bidirectional Reflective Delineators/Monodirectional Markers
Curb Markings for Roadway Delineatiion

c) Barricades & Channelizing Devices
General Notes
Channelizing Devices
Channelizing Devices-Traffic Cones
Traffic Cones/Tubular Markers/Cones/Vertical Panels/Portable Flasher Supports/Drums
Barricades, Types I, II, III
Heavy Barricades/Light Barricades
Barricades-Portable/Barricades-Permanent

5B Traffic Markings

5B1 Overarching & Sub-Overarching Terms With General Notes

a) Overarching Terms with General Notes

General Note I. Traffic Markings and Road Markings are the primary terms in this coverage. Yet the unencumbered term of Markings needs be seriously considered since US MUTCD editions have centered on Markings as the general overarching term. However, the word Markings is generally not adequate especially when it is used alone. It needs to be placed within a TCD context in order to be adequate. There are several two-word terms that are more viable for these types of Markings. One of these, Pavement Markings, is often employed as an overarching term, and even though it encompasses much of the subject it does not cover all aspects. Road Markings and Traffic Markings are in a virtual "dead-heat" as the primary, overarching term for the subject; both are employed in the Database. Carriageway Markings can be considered as an additional alternative.

General Note II: If one focusses on the core elements of Signs and the core elements of Road/Traffic Markings there is little confusion over what the terms mean and what the respective functions are. But when one moves away from the core meaning then confusion can be generated over the meanings of Road/Traffic Markings, and of Signs. An explanation on how they differ, how they overlap, what constitutes their core identity is therefore needed.

Many Traffic Markings are of a horizontal nature while most of the remaining forms are vertical though of short stature. Signs are always vertical and in most instances well off the ground. One may not be able to say with precision what the height of a Marking can be, or that of a Sign but Signs are taller than vertical Markings. Road/ Traffic Markings denoting obstructions may have a more developed vertical dimension; nonetheless, the character of that Marking displays a similar pattern associated with horizontal devices. Markings may have word and numerical forms when horizontal. But Markings on the pavement with words and numbers are not Signs though OECD speaks of Traffic Markings as a kind of Horizontal Signing. Markings of a vertical nature may display graphic symbols

but these have a different character. Signs with graphic symbols (and without words/numbers) occupy a portion of the sign board but do not cover it. This is also true for Warning Chevron Signs in which the symbols occupy only part of the sign board.

Barricades and Channelizing Devices were part of Construction and Maintenance TCD forms for US MUTCD for a number of years. But they have been transferred to Traffic Markings. A vertical dimension is present yet the essential nature of Markings is present.

Markings may not exhibit all core characteristics (horizontal or very short, a lack of graphic/word symbols, symbols that encompass the surface) but one or more of the principles is solidly in evidence and all three may be present.

Homburger 1977 regards Milepost Markers as Markings. But MUTCD places Mileposts in Signs. The presence of word/number symbols supports the MUTCD view. Dangerous over-passes may be encompassed in Markings (black/yellow stripes) but even in that instance words and numbers which are present constitute Signs and have an identity separated from Markings.

Noble 1946, a major historical source, offers a variant view of Traffic Markings. He remarks that "white lines on carriageways (roadways) are also considered as being traffic signs." This suggests a broad view of Signs as including anything aiding road safety without regard to its character.

General Note III: Markings -- when employed as a short form of Traffic Marking -- is one component of Transportation-Markings. It is NOT a synonym for T-M despite the erroneous practice of those who redefine T-M as merely another term for Road/Pavement/Traffic/Carriageway Markings.

ROAD MARKINGS. The term Road Markings (along with Road Signs, Road Signs) is often employed in Europe (including documents detailing with European practice). There is a possible underlying philosophy in Europe that attaches TCD forms to the road while Western Hemispheric practice relates TCD forms to the movement of vehicles (that is, to traffic). That hypothesis may be little more than

speculation. European practice refers to Road Signals, Signs, and Markings but not have a Road Control Devices term (cp: Traffic Control Devices) This study views the term Road Markings as nearly as significant as Traffic Markings.
References: UN 1968, UN ECE 1957, 1995

TRAFFIC MARKINGS.
General Note. This basic term requires a classification entry. However, the classification includes both Traffic Markings and Traffic Signs within an Unlighted category. And the subdivisions are the basic components of each form of Aid. There is currently no basic subdivisions under Traffic Marking (nor one under Traffic Signs either). The classification needs to be revised so as to include those basic components.

This term can be regarded as nearly in tandem with Road Markings. It is a frequently employed term especially in the Western Hemisphere. The term closely allies Pavement and other Markings with traffic situations. It is more directly related to movements of vehicle and pedestrian.
References: RDPHB 1981, Homburger 1977

MARKINGS. This may prove to be an overly inclusive term that can be confused with T-M or other forms of TCDs. This usage of the term is largely confined to the Western Hemisphere and especially to North America. Markings works within the context of TCD but its meaning becomes elusive when used independently. Within a TCD context Markings can become an overarching term similar to that of Road, Traffic Markings.
References: Canada 1976, MUTCD editions, RORT 1965 (UK)

ROAD MARKING SYSTEM. A term preceded by European that is a publication title. It can also serve as an overarching term that focusses on Markings as a system.
Reference: OECD 1975

MARKING & DELINEATION DEVICES. An overarching term for Pavement Markings, Raised Pavement Markers, Delineators. OECD describes these Devices as "... an information system providing continuous guidance to drivers on the road

... ." Information system can serve as a key focus for all of T-M.
Reference: OECD 1975, page 15

MARKING DEVICES. An overarching term for Pavement (Horizontal) Markings, Delineators, and Raised Pavement Markers.
References: OECD 1975

MARKING SYSTEMS. An overarching term for *Traffic Control Devices Handbook* (TCDHB) and OECD. The first source includes Road Surface Markings, Post-mounted Delineators, Object Markers. Curbs adjoining marked areas can also be included. Few details are available with second source.
References: OECD 1975, TCDHB 1983

ON-THE-ROADWAY MARKINGS. This term is a synonym of Roadway Marking as described by TCDHB. While it may appear to be narrower in scope yet its employment in that publication suggests a similar usage. A possible narrower meaning cannot be ruled out.
Reference: TCDHB 1981

ROAD MARKING & DELINEATION. This term is the title of an OECD publication. It is similar to a second OECD term: Marking & Delineation Devices.
Reference: OECD 1975

ROADWAY MARKINGS. A term apparently employed only by TCDHB. It can be used as a synonym for more frequently employed terms. The word "Roadway" seems to be the equivalent of Carriageway. TCDHB also refers to On-the-Roadway Marking which may suggest a narrower scope.
Reference: TCDHB 1983

HIGHWAY MARKINGS. This term, rarely employed, is a possible overarching term. Highway may suggest rural roads and therefore outside towns and cities. However, in US parlance, Highway can have a broader meaning as can be seen in the term Highway Signals. *Roadway Delineation Practices Handbook* (RDPHB) 1981 includes a few references to the term.
Reference: RDPHB 1981

CARRIAGEWAY MARKINGS. A term employed as an overarching term by a variety of sources especially in UK and European sources. Carriageway is the equivalent of roadway and Carriageway Markings may suggest Roadway Markings which see.
References: UN 1968, UN ECE 1995, RORT 1965, MOT 1969

ROAD/TRAFFIC MARKINGS. A combined term sometimes employed in the lst edition. It was an attempt to employ two basic terms together. But not employed in this edition.
Reference: Part Iii, lst edition

b) Sub-Overarching Terms

1) Broader Terms

ALPHANUMERIC MARKINGS. A term in T-M classifications intended to bring together Surface Markings of specialized forms. A possible term from other sources.
References: Part E, Part H

GRAPHIC MARKINGS. A term in T-M classifications that brings together Surface Markings of specialized forms. A possible term in other sources.
References: Part E, Part H

HORIZONTAL MARKINGS. An alternative term for Pavement Markings that are generally horizontal in form. It can be viewed as a near-overarching term since it can encompass many forms of Pavement Markings.
References: OECD 1975, Part E, Part H

HORIZONTAL PAVEMENT MARKINGS. A term for Horizontal Markings other than Raised Pavement Markers.
Reference: OECD 1975

HORIZONTAL SIGNING. An apparent synonym for Road Markings for OECD.

Reference: OECD 1975

PAVEMENT MARKINGS. This term is absent from UN 1968 and ECE 1995, and little used in Europe. It is employed in UN GERSS 1952 and UN ECAFE 1964 and frequently used in the Western Hemisphere. ECAFE expands the term to include Curb/Kerb Markings. For Canada 1976 it is one of two subdivisions for this category. For US MUTCD it makes up one of several primary categories.
References: UN 1968, ECE 1995, UN GERSS 1952, UN ECAFE 1964, Canada 1976

PAVEMENT SURFACE MARKINGS. A synonym or nearly so for Road Markings and related terms. Road Surface Markings (see following entry) appears to be the equivalent of this term.
Reference: OECD 1975

ROAD SURFACE MARKINGS. For ECE 1995 and UN 1968 this term is an apparent synonym for Road Markings since both terms seemingly have the meaning of Pavement Markings. ECE 1995 Marking of Obstructions is within Road Markings; obstructions are apparently outside Surface Markings.
References: ECE 1995, UN 1968

ROADWAY DELINEATION. This term can generate possible confusion. Often time the basic term, Delineator, refers to reflective elements on short posts at the edge of roadways. However, RDPHB 1981 defines Delineation devices as any object (other than Signs) that helps to guide, provides track data, directs vehicles on a roadway. Only Barricades and Channelizing Devices, and Obstruction Markings are not included; and it is possible that parts of those categories are also included. This use of Delineation qualifies as a sub-overarching term and possibly a partial overarching term.
Reference: RDPHB 1981

TRAFFIC DELINEATION MARKINGS. A term from RDPHB references, and a possible alternative term for Roadway Delineation though a nuanced distinction may be present.
Reference: RDPHB 1981

SURFACE MARKINGS. An infrequently employed term. It may be closer in meaning to Pavement Markings than Road or Traffic Markings though a broader usage cannot be ruled out. Surface Markings in ECE 1957 are those on the surface; they also include "Other Markings." See Also: Road Surface Markings.
Reference: ECE 1957

2) More Restricted Forms

BARRICADES & CHANNELIZING DEVICES. These Devices are used in North American practice. They are often associated with Construction & Maintenance work though the US added a non-C & M section in 1978. Barricades are larger than many other Traffic Markings yet lack recognizable Sign elements. Channelizing Devices are often of small stature and movable.
References: Hawkins 11-92, MUTCD 1988

HAZARD MARKINGS. Canada 1976 employs this term for various Obstruction Markings. It is conjoined with Delineation Markings thereby creating a basic category. All Markings, other than Pavement Markings, are in that combined group.
Reference: Canada 1976

LONGITUDINAL MARKINGS. The primary characteristic of these Markings is that of length; such Markings parallel the direction of pavement. They consist of lines broken, and continuous, single and double. They indicate Centerlines, Lane Lines, Roadway edges, occasionally obstructions. The term is a general one for a variety of systems.
References: UN 1968, UN ECE 1995, ECAFE 1964, GERSS 1952

MARKED SURFACES. The meaning of this term is not entirely clear. It is a component of Markings that includes longitudinal and transverse lines as well as arrows. Such Markings may possibly include situations where a more substantial part of the pavement is covered with paint or other materials.
Reference: OECD 1975

MULTIPLE-DIRECTIONS MARKINGS. A term in T-M classifications that refers to Surface Markings of a specialized form that are brought together.
References: Part E, Part H

OBJECT MARKINGS. A US term for various Obstruction Markings. It is the equivalent of Canada's Hazard Markings.
References: US MUTCD 1961, 1971

OBSTRUCTION MARKING. A plausible term for TCDs yet is it employed in the literature? Admittedly it appears in these Studies. It is possible that the UN term Marking of Obstructions was reworked by the compiler into Obstruction Markings.
Reference: T-M Studies; see also: UN 1968

VERTICAL MARKINGS. A term in T-M classifications and possibly other sources for Delineators and other Devices.
References: Part E, Part H

TRANSVERSE MARKINGS. These Markings, in contrast to Longitudinal Markings, run across roadways. Crosswalk Markings and Stop Lines are common forms.
Reference: RORT 1965, ECAFE 1964, UN 1968

5B2 Pavement & Curb Markings

a) Longitudinal Markings

LONGITUDINAL MARKINGS.
Classification #: 4340
Form of Aid: TCD Unlighted Aid
Operation: Lines produced through paint, thermoplastics, Raised Pavement Markers that indicate driving lanes, no-passing lanes, roadway edges and other uses.
Comments: Lines highlighted by a linear character that is parallel with roads. Wainright describes a situation in which some nations or regions employ yellow

for centerlines and white for edges. While others display a reverse pattern. Yet other nations have a nearly white color. An agreed-upon pattern for global usage is clearly lacking.
References: UN 1968, UN ECE 1995, US MUTCD editions, Wainright 2005

1) Center Line Markings

CENTER LINES/CENTER-LINE MARKINGS/CENTERLINES/CENTER MARKINGS/CENTERLINE STRIPES/PAVEMENT CENTERLINES

General Note. These terms refer to a common function: a line affixed to the center of a roadway that divides opposing directions of traffic. Canada 1976 employs a different term that may better describe the function: Directional Dividing Lines. The variety of lines and meanings can be summed up in a few basic norms.

UN GERSS 1952 and ECAFE 1964 speak of a single solid line that is not to be crossed. UN 1949 refers to Road Markings in general terms but without a precise description of Centerlines. UN 1968 has no precise term for this function though it does refer to the use of broken lines in that role. UN 1968 includes that function within the Traffic Lane Markings category. US MUTCD editions include a broken yellow line which indicates that passing (overtaking) is allowed. Double solid lines prohibit passing in both directions. A single yellow line in conjunction with a broken line prohibits passing in one direction (the lane in which the solid line appears). Canada, UN 1968, ECAFE 1964, UN GERSS 1952 all permitted yellow or white in color codes for this purpose. All but Canada 1976 permitted silver or light gray for fulfilling the requirements for white.
References: Canada 1976, ECAFE 1964, Lay 1991, UN 1968, UN GERSS 1952, US MUTCD editions

CENTERLINE MARKINGS FOR SHARED-USE PATHS. Term for Markings shared by bicycles, motor vehicles and other users.
Reference: US MUTCD 2000

DIRECTIONAL DIVIDING LINE. Canada 1976, as previously noted, employs a more descriptive term for Centerlines. Canada employs a broken yellow line in

rural areas while a single solid line denotes prohibition on passing. Undivided multi-lane highways are marked by a double solid line. Four lanes roads in urban areas have a single solid line. High speed highways have a double solid line.
Reference: Canada 1976

DOUBLE CENTER LINES. This term appears in Hawkings (11-92) and refers to US MUTCD 1948. This appears to be a separate term. Other sources include variety of lines within the single term Center Lines but in this instance one form takes on a separate name and identity.
Reference: Hawkins (11-92)

2) Edge Lines

EDGE LINES/EDGE LINE MARKINGS/EDGE LINE PAVEMENT MARKING/EDGE MARKINGS/EDGE-MARKINGS/EDGE OF CARRIAGEWAY MARKINGS/PAVEMENT EDGE LINES/PAVEMENT EDGE LINE MARKINGS/PAVEMENT EDGE MARKINGS/BORDER LINES INDICATING THE LIMITS OF THE CARRIAGEWAY/CARRIAGEWAY EDGELINES/CARRIAGEWAY LIMIT LINES. These terms carry out what appears to be a single function: Lines that denote the edge of pavement rather than lanes within a roadway/carriageway. Canada 1976 offers a variant form of Edge Marking: a white solid line on the right of the lane but yellow when to the left. UN 1968 allows either either yellow or white lines which can also take the form of reflective elements ("reflex reflectors"), studs or buttons. UN GERSS 1952 includes only general norms and omits specifics for Edge Markings. UN ECAFE 1964 is often similar to UN GERSS but not in this instance. ECAFE includes broken lines or allows an alternate solution if it is different from Lane Markings. A continuous line is permitted if width is different from barrier lines. Studs, reflectors, buttons can be employed as an alternate. UN 1968 employs a cumbersome term: Border Lines Indicating the Limits of the Carriageway. US MUTCD follows the standard practice of white solid lines for roadway edges. However, the left lines are yellow on divided highways and one-way streets.
References: Canada 1976, UN GERSS 1952, UN ECAFE 1964, US MUTCD

3) Lane Markings

CHANNELIZING LINES. These Lines are double, white, continuous, or a wide single line. They are employed to create traffic islands when traffic flowing in the same direction can travel on both side of the Lines.
Reference: US MUTCD 1988

LANE LINES. A term largely found in the Western Hemisphere. These Lines delineate lanes on multi-lane highways. They commonly display broken, white, single lines.
References: Canada 1976, US MUTCD editions, RDPHB 1981, RORT UK 1965

LANE LINES AT CONTROLLED INTERSECTIONS. These Lines represent a UK practice. These Lines are installed at or adjacent to signalized interesections where multiple lanes are created with roadway delineation.
Reference: RORT 1965

LANE MARKINGS. This is a seemingly informal term from Hawkins which serves as a synonym for Lane Lines. However, Hawkins often employs the more common term.
Reference: Hawkins, 7-92

LANE REDUCTION TRANSITION MARKINGS. This form of Pavement Marking indicates where lanes are reduced and simultaneously provides guidance for traffic as it merges into fewer lanes.
Reference: US MUTCD editions

PAVEMENT-WIDTH TRANSITION MARKINGS. An older name for Lane Reduction Transition Markings which see.
Reference: US MUTCD 1948, 1961, Homburger 1977

RESERVED LANE MARKINGS. An uncertain term yet a plausible one for setting aside lanes for specific categories of vehicles. It has validity at least in an informal sense. It is possibly a simplifying of the following ECE 1995 term.
See also: ECE 1995, Part Iii-lst ed.

ROAD MARKINGS FOR A LANE RESERVED FOR CERTAIN CATEGORIES OF VEHICLES. These Markings from ECE 1995, denote lanes for a special category of motor vehicles. Solid or broken lines separate these lanes from general-purpose lanes. Words may be added when needed.
Reference: ECE 1995

TEMPORARY LANE MARKINGS. Hawkins notes the addition of short-term Lane Markings for Work Zones in US MUTCD 1988.
Reference: Hawkins, 11-92

TRAFFIC LANE MARKINGS. UN 1968 employs this term for Centerline and Lane Markings. The term suggests the category of Traffic Lane Markings by encompassing Centerline Markings even if not by name.
Reference: UN 1968

(4) Other Longitudinal Markings

CONTINUOUS LINES FOR "PARTICULAR SITUATIONS". UN 1968 refers to Markings for Particular Situations which involve the use of Continuous Lines. Part E in these Studies includes Continuous Lines with reference to Particular Situations in the classification and other coverage.
Reference: UN 1968, Part E

GUIDE LINES FOR TURNING VEHICLES/TURN MARKINGS/TURNING MOVEMENT OF VEHICLES. The first term, from ECAFE 1964, consists of broken lines marking left/right turns; arrows may be added. The curved lines delineate the path of turns and offer instructions on marking turns. US MUTCD 1948 and 1961 uses the term Turn Markings while UN GERSS 1952 includes Turning Movements of Vehicles. UN 1968 and ECE 1995 employ Guide Lines ... denoting lines indicating process for making left/right turns in nations where traffic is right/left handed.
References: ECAFE 1964, US MUTCD 1948 and 1961, UN 1968, ECE 1995

LANE LINES & RIGHT EDGE LINE PAVEMENT MARKINGS/ CENTERLINES & LEFT EDGE LINE PAVEMENT MARKINGS/YELLOW

CENTERLINE PAVEMENT MARKINGS/WHITE LANE PAVEMENT MARKINGS/LANE LINE PAVEMENT MARKINGS. MUTCD 1988 included Center Lines and Lane Lines while newer editions add Pavement Markings to these Lines and other Traffic Markings. Newer terms more frequently include color. See also: Lane Lines and Center Lines entries.
Refererences: US MUTCD 2000, 2003

LONGITUDINAL PAVEMENT MARKINGS. The first edition of this study omits Pavement reflecting older MUTCD practice. However, newer editions add Pavement to numerous terms.
Reference: US MUTCD 2000 and 2003

MARKINGS FOR BICYCLE LANES. US MUTCD 2000 includes Longitudinal Lnes for Bicycles under this term.
Reference: US MUTCD 2000

MARKING OF OBSTRUCTIONS [DUAL CATEGORY]. A term that has a primarily obstruction/hazard role though it can have a longitudinal character.
Reference: UN 1968

MARKINGS AT PARTICULAR LOCATIONS. ECAFE 1964 employs this term to indicate passing/overtaking prohibitions. It consists of continuous singles lines and is similar to Marking for Particular Situations in UN 1968.
References: ECAFE 1964, UN 1968

MARKINGS FOR PARTICULAR SITUATIONS. This term from UN 1968 and ECE 1995 is a possible sub-overarching term. Yet it appears to focus mostly on the single role of prohibition of overtaking (passing) due to limited visibility. It is similar to ECAFE's Markings at Particular Locations.
References: UN 1968, ECE 1995

MARKING EXTENSIONS THROUGH INTERSECTIONS OR INTER-CHANGES/PAVEMENT MARKING EXTENSIONS THROUGH INTER-SECTIONS. US MUTCD 1971 employs the first term for intersections of complex design or limited visibility. Roadway Markings are extended into and

through intersections; they are to be broken, single, white lines. Some situations may require lines of greater emphasis. These are termed Channelizing Lines whose functions include turning movements. Homburger employs the first term.
References: US MUTCD 1971, Homburger 1977

MARKINGS FOR OTHER CIRCULAR INTERSECTIONS. Terms for Markings applied to non-roundabout circular intersections (rotaries, traffic circles) and "Traffic Calming" situations.
Reference: US MUTCD 2003

MARKINGS FOR ROUNDABOUT INTERSECTIONS. A term for marking complex and circular intersections known as roundabout intersections.
Reference: US MUTCD 2003

NO-PASSING ZONE MARKINGS/NO-PASSING MARKINGS. Canada 1976 uses solid lines adjoining broken centerlines for marking a no-passing zone. US MUTCD practice is similar. The second term is from US MUTCD 1948.
References: Canada 1976, US MUTCD editions, 1948

PAVED-SHOULDER MARKINGS. This term seemingly appears only in US MUTCD 1961. The Markings apparently were often coarse stone chips which denoted the shoulder through audible warning as well as color. Newer edges are marked by painted lines. There are also rumble strips in use but not through stone chips.
Reference: US MUTCD 1961

PEDESTRIAN LINES. T-M Studies includes this alternate term for classifications.
Reference: Part E and other T-M Studies

STREET CLEARANCE & TRANSIT VEHICLE GUIDE LINES. Canada 1976 uses this term to indicate the presence of streetcar overhangs thereby providing guidance to the operators and other motorists.
Reference: Canada 1976

b) Transverse Markings

TRANSVERSE MARKINGS.
Classification #: 4341
Form of Aid: TCD Unlighted Aid
Operation: Lines, graphic symbols, alphanumeric symbols denote crosswalks, stoplines, parking spaces among other uses. Devices produced through paint, thermoplastics, raised pavement markers.
Comments: This term refers to that which is across, athwart. However, US MUTCD includes everything except longitudinal lines. An effort has been made in these studies to distinguish transverse from other forms.
References: US MUTCD editions

CROSS-WALK/CROSSWALK LINES/CROSSWALKS/CROSSING MARKING/PEDESTRIAN CROSSINGS. Various Crosswalk Marking terms have the same focus: to delineate pedestrian zones across intersections. The nature of these Markings can vary substantially. ECAFE 1964 employs "zebra" stripes for this purpose. UN GERSS 1952 stipulated solid transverse lines which outline the crossing; a geometric pattern can also be used. ECE 1995 and UN 1968 mark crossings with stripes. US MUTCD editions offer several possibilities: the basic pattern consists of solid white lines bordering the crossing. Diagonal lines can be added between solid lines. A second alternate permits a series of rectangular-shaped bars delineating the crosswalk. Canada 1976 uses solid white lines for crosswalks. Homburger 1977 refers to Crossing Markings. This is an unusual practice in that Crossings and Crosswalks rarely add Marking to the core term. Pedestrian Crossing is used in lieu of Crosswalk and Crosswalking Lines by ECE 1995 and UN 1968
References: ECAFE 1964, UN GERSS 1968, US MUTCD editions, Homburger 1977, ECE 1995, UN 1968

CYCLIST CROSSINGS. A term for Markings designating for bicycle crossings. US practice includes bicycle lanes extending through intersections though not crossings. UN and other systems do include such Markings. Cyclist Crossing Markings bear resemblance to Pedestrian Crossings though the two forms can be differentiated.

Reference: UN ECAFE 1964, UN ECE 1995, UN 1968

INTERSECTION MARKINGS. This term from Canada 1976 can be viewed as a sub-overarching term. It includes Crosswalk Lines and Stop Lines.
Reference: Canada 1976

LINES INDICATING POINTS AT WHICH DRIVERS MUST GIVE WAY. This lengthly term displays one or two solid lines and indicates the point at which motorists must give way (Yield in Western Hemisphere) to intersecting traffic. A series of triangles can substitute for the solid lines.
References: UN 1968, ECE 1995

OBLIQUE PARALLEL LINES. Term designating areas not to be entered. The Lines are of variable design both oblique and longitudinal of an atypical design.
Reference: UN 1968

RAILROAD CROSSING MARKINGS/RAILROAD CROSSING ADVANCE MARKINGS/RAILROAD-HIGHWAY GRADE CROSSING PAVEMENT MARKINGS/APPROACHES TO RAILROAD CROSSING MARKINGS/ APPROACHES TO RAILWAY CROSSING MARKINGS/HIGHWAY-RAIL GRADE CROSSING PAVEMENT MARKINGS. Many Markings for crossings are to be found in the Western Hemisphere. Canada 1976 displays a double white solid line in a diagonal configuration near the tracks. US MUTCD 1978 and 1988 includes a broad stripe near the track then two additional stripes at some distance from the track. The added stripes flank an "X" and, in turn, are flanked by a pair of "R"s. US MUTCD 1948 and 1961 displayed a double diagonal stripe near the track. Homburger 1977 includes two transverse lines near the track. There are seemingly no specific Level Crossing Markings in UN 1968.
References: Canada 1976, US MUTCD editions

STOP LINES/STOP BARS/LIMIT LINES. These Lines and Bars are the most common of all Transverse Markings; nearly all systems have some form of this Traffic Marking. The diversity of terms does not indicate a broad range of forms. The Stop Line displays a broad line, frequently white, at the approaches to an intersection. Homburger offers alternate terms (the last two named terms) which

are included here though not included in various systems.
References: UN ECE 1995, GERSS 1952 (first term); Homberger 1977 (second and third terms)

TRANSVERSE LINES AT CONTROLLED JUNCTIONS/TRANSVERSE LINES AT UNCONTROLLED JUNCTIONS. RORT frequently uses these terms for Stop Lines. RORT suggests a double broken line for uncontrolled intersections (intersections without either Signals or Stop/Halt Signs).
Reference: RORT 1965 (Research on Road Traffic, UK)

c) Other Pavement & Curb Markings

ADVANCED SPEED HUMP MARKINGS. These markings give advance notification of speed humps or other designed alterations of the roadway (e.g., dips).
References: US MUTCD 2000, 2003

ARROW MARKINGS/LEGEND & SYMBOLS/WORD MARKINGS/WORD MESSAGES/WORD & SYMBOL MARKINGS/ARROWS. Arrow Markings in ECAFE 1964 indicate directions assigned to various lanes. UN 1968 employs the wording of ECAFE 1964. For Canada 1976 the word Legends has the meaning of Words. Recommended uses include school, slow, right/left lane, stop. Homburger 1977 employs Word Messages rather than Word Markings. Word Markings for ECAFE 1964 uses words for place names, route numbers, various brief messages including stop, bus, taxi; UN 1968 is similar to ECAFE 1964. Words and Symbol Markings is the preferred term for US MUTCD editions. Words are also symbols but only graphic symbols are so classified.
References: ECAFE 1964, UN 1968, Canada 1976, US MUTCD editions, Part E

APPROACH MARKINGS FOR OBSTRUCTIONS IN ROADWAY/MARKING OF OBSTRUCTIONS. These Markings are Pavement Markings and Obstruction Markings employed for warning and marking obstructions. They consist of Channelizing Lines in a nearly elipse pattern accompanied by diagonal lines or chevrons surrounding the object in question. On non-divided highways this Marking is in yellow while on divided highways it is in white. It is found in US

MUTCD 1971 and newer editions. It is also listed in Obstruction Markings.
References: US MUTCD editions

BICYCLE DETECTOR MARKING. This term denotes the optimal place for activation of a Signal by bicyclist.
Reference: US MUTCD 2003 Rev 1

COLORED PAVEMENT. This term can signify a TCD. US MUTCD 1971 regards such pavement as a TCD when employed for regulation and guidance. Colors employed for Color Pavement include red for Stop Sign Approaches; yellow for medians dividing traffic (in opposite directions); white for Shoulder Delineation, Channelizing Islands, Crosswalks. Red is included in 1971 but not in 2003 edition.
References: US MUTCD 1971, 2003

CURB MARKINGS/CURB MARKINGS FOR PARKING RESTRICTIONS. These Markings can denote prohibition near stop signs, driveways, crosswalks among other uses in MUTCD 2003. ECAFE 1964 uses Curb Markings for parking restrictions and also to improve visibility. This form displays contrasting checks; the colors are not given in ECAFE 1964. Homburger 1977 notes that Curb Markings are to be yellow in color for parking restrictions, prohibitions. That source also outlines the color code of California for Curb Markings: Red for stopping or standing prohibited; Yellow for commercial loading zones; White for passenger loading zones. Green for brief parking; Blue for handicapped. This is a more comprehensive code for Curb Markings than in other sources. See Also: Curb Markings for Delineation.
References: ECAFE 1964, US MUTCD 2003, Homburger 1977

DIRECTIONAL MARKINGS. An apparent historical term from US MUTCD 1948. These Markings consisted of Route Numbers painted on the pavement. The practice is no longer followed though ECAFE 1964, and UN 1968 indicate that similar practices are approved for use.
References: US MUTCD 1948, ECAFE 1964, UN 1968

DYNAMIC ENVELOPE DELINEATION MARKINGS/DYNAMIC

ENVELOPE MARKINGS/DYNAMIC ENVELOPE PAVEMENT MARKINGS/ TRAIN DYNAMIC ENVELOPE PAVEMENT MARKINGS. The term Dynamic Envelope Delineation refers to the space required for train operations and the border that delineates that space. Markings denote edges of that envelope.
References: US MUTCD 2000, 2003

EXIT & ENTRANCE INTERCHANGE RAMP MARKINGS. These Markings are from US MUTCD 1961 and newer editions. They constitute a form of Channelizing Line. The entrance form displays a wide white line which aids merging of traffic entering a freeway with through traffic. The exit form displays double white lines with crosshatching delineating ramp from the main stem of a freeway
References: US MUTCD 1961

INTERSECTION PAVEMENT MARKINGS. A term that suggests a general-use term though the specific reference is for bicycle Pavement Markings.
Reference: US MUTCD 2000, 2003

MEDIAN ISLANDS FORMED BY PAVEMENT MARKINGS. This term is found in US MUTCD 1971 and 1978. It consists of double yellow lines that create median islands as a divider for traffic moving in opposite directions. Crosshatching can be added to the lines.
References: US MUTCD 1971, 1978

NO-PASSING PAVEMENT MARKINGS. A somewhat similar term for No-Passing Zone Markings. Pavement added in US MUTCD 2000, 2003 for a number of Marking forms.
Reference: US MUTCD 2000, 2003

PARKING MARKINGS/PARKING SPACE MARKINGS/MARKING OF PARKING SPACE LIMITS/PARKING SPACE LINES. US MUTCD 1971 has several forms of the first named term. These forms include several designs: complete outlining of the space; outside lines marked off by short Transverse Markings; "plus" Markings denoting side, front, back dimensions. US MUTCD 1961 speaks of Lines rather than Markings. Canada 1976 uses the term Parking

Markings. These forms include: crosses at corner of spaces, front and back lines, small painted indicators on curbs. ECAFE 1964 refers to Limits and has two forms: right angle parking with side lines and oblique space lines; parallel parking has front and back lines and short side lines.
Reference: US MUTCD 1961, 1971, Canada 1976, ECAFE 1964

PREFERENTIAL LANE WORD & SYMBOL MARKINGS. These are Markings denoting a lane for a specific class(es) of vehicles. Markings can bein use for part or full time use. Classes of vehicles include buses, light transit or bicycles.
Reference: US MUTCD 2003

PREFERENTIAL LANE LONGITUDINAL MARKINGS FOR MOTOR VEHICLES. This term is part of the general preferential term though the references is only to Motor Vehicles.
Reference: US MUTCD

REFLECTIVE PAVEMENT LEGENDS. A historical term (or an informal descriptive term) from Sessions 1961 that refers to word and graphic symbols painted, embossed on pavement. It can be considered as part of the Arrow, Word and Symbol entry but listed separately because of the distinctive term.
Reference: Sessions 1961

SPEED HUMP MARKINGS. A term for Markings that denotes location of speed humps.
Reference: US MUTCD 2003

SPEED MEASUREMENT MARKINGS. A Transverse Marking that aids enforcement of speed limits.
Reference: US MUTCD

STANDING & PARKING REGULATIONS MARKINGS. UN 1968 permits restrictions on curbs (kerbs) or carriageway to curbs, carriageways by the use of Markings. This is also included by ECE 1995.
Reference: UN 1968, UN ECE 1995

STOP & YIELD LINES MARKINGS. An overarching term for two forms of Markings.
Reference: US MUTCD 2003

YIELD LINES. Term for a row of isosceles triangle that denote the point at which vehicles are to yield to a primary flow of traffic.
References: US MUTCD 2000, 20003

d) Physical Pavement Marking Forms

GENERAL NOTE. Traffic Markings virtually fuse physical and morphological dimensions of the Marking. The first edition of the Database focussed on the morphological dimension of Traffic Markings and lacked a separate segment for the physical underpinings of Traffic Markings. A scattering of physical forms were included but they were incomplete and not separated from morphology. This new segment provides basic terms for the physical part of Traffic Markings. OECD 1975 and RDPHB 1981 were omitted from the first edition and they are major sources for physical information. These Markings which come in many forms can be divided into Raised and Surface Marking sections. A welter of terms are employed and frequently the terms overlap or are interchangeable.

1) Raised Pavement Markers

RAISED PAVEMENT MARKERS. This term refers to manufactured units affixed to the pavement and of a raised nature. They include reflectorized and non-reflectorized forms.
References: US MUTCD 2003, OECD 1975

BI-CONVEX REFLECTORS. This form of Reflector uses a refraction process employing a bi-convex reflector which takes the form of a two-ended cylinder.
Reference: OECD 1975

CATS-EYES/CATS EYE-RETRO REFLECTERS. The second term term makes explicit the nature of the Cats Eye Marker. Cats Eyes are also considered under Reflector Studs

Reference: UK MOT. OECD 1975

CORNER-CUBE REFLECTORS. Term refers to a Reflector comprised of many tiny reflectors of a three-sided design which provides a high level of refraction. These Reflectors are extensively used and of many designs.
References: OECD 1975

LENS-TYPE REFLECTORS. This term can suggest a general term though it is specific for OECD. It refers to a form of reflector with a lens of concentric design.
See Also: Bi-Convex Reflector.
Reflector: OECD 1975

LUMINOUS MARKS. The meaning of this term from OECD is not fully clear. It can be viewed as independent of Retro-Reflective Marks or is interchangeable with that term.
References: OECD 1975

NON-REFLECTIVE MARKERS. This form of Marker lacks a reflective capacity. They are, however, presumably of a raised character.
References: OECD 1975

NON-RETRO-REFLECTIVE MARKERS/NON-RETRO REFLECTIVE MARKERS/NON-RETRO-REFLECTIVE CERAMIC MARKERS/NON-RETRO-REFLECTIVE BUTTONS/NON-RETRO-REFLECTIVE RAISED PAVEMENT MARKERS/NONRETRO-REFLECTIVE BUTTONS. These terms refer to similar Markings. Though differences in terms also indicates points of difference including presumably in materials and design.
Reference: OECD 1975

PROTUDING MARKERS. There is a single reference to this term. It is possibly an experimental Marker or one undergoing development.
Reference: OECD

RAISED MARKINGS/RAISED HORIZONTAL MARKINGS. These terms are of a general nature. Few details available.

Reference: OECD

RAISED PAVEMENT MARKERS (RPMs). Many Pavement Markings are of a paint form or of themoplastic materials. However, some Pavement Markings have the form of Raised Pavement Markers. They are employed in more hazardous situations (exit ramps, approaches to bridges, curves) and either stand alone or are associated with painted lines. White and yellow forms have the meanings assigned to painted lines. Red Markers have the meaning of Wrong Way Signs. Blue denotes fire hydrants. Some forms are reflectorized. There are a variety of terms and variations in use:

RAISED REFLECTIVE PAVEMENT MARKERS/RAISED REFLECTIVE MARKERS/REFLECTIVE PAVEMENT MARKINGS/ MARKERS

Other terms include: SNOWPLOWABLE REFLECTIVE MARKERS/ RECESSED REFLECTIVE MARKER. These terms refer to forms that can either sustain scraping action, or are recessed and thereby immune to movements of machinery.

References: TCDHB 1983, RDPHB 1981, OECD 1975

RAISED MARKING SYSTEM. OECD includes this term without definition. Seemingly it refers to a group of Markings for a given area or road system.
Reference: OECD

RAISED RETRO-REFLECTIVE MARKERS. A term that can serve as an over-arching term for many Traffic Markings which are both raised and reflective.
Reference: OECD

REFLECTOR STUDS/REFLECTING ROAD STUDS/CATSEYES. These terms are UK in origin. Catseyes were applied to reflector objects in the 1920s during the developments of the Marker. Noble 1946 makes mention of Reflector Studs including red forms.
Reference: Noble 1946, HDTS, UK 1950

REFLECTING BUTTON. Comments for Retro-Reflective Buttons may apply

here.
Reference: OECD

REFLECTIVE MARKERS. A general term for all forms of Markers with reflective capacity.
References: OECD

RETRO-REFLECTION. This term refers to a process often at work in Reflective Markers and which is incorporated into the nature of many Markers. The reflective process causes transmitted light to be returned to near the point of transmission.
Reference: OECD 1975

RETRO-REFLECTORIZED BUTTONS. "Buttons "often indicate a non-reflectorized Marking. This OECD term adds reflectorization to that word. It is unclear if the term is interchangeable with Retro-Reflectors or is a separate form.
Reference: OECD 1975

RETRO-REFLECTIVE MARKERS. Term for Raised Markers involving the use of refraction (a lens process including bi-convex reflectors) or reflection (often a corner-cube).
References: OECD 1975

RETRO-REFLECTIVE MARKS. This may be an interchangeable term for Retro-Reflective Markers. Though differences between Mark and Marker may be present.
References: OECD 1975

REFLEX REFLECTORS. A UN term that seemingly corresponds to Raised Reflective Markers and similar terms.
Reference: UN 1968

RUMBLE STRIPS/RUMBLE STRIPES/AUDIBLE ROADWAY DELINEATION. RDPHB includes Rumble Stripes as a possible RPM use; no other surveyed source includes it. The third term is from a source title in RDPHB.

Reference: RDPHB 1981

SELF-LUMINOUS REFLECTORS. This may refer to an experimental Marking or one under development. Electricity or even radioactivity was to be employed as a power source.
Reference: OECD 1975

STUDS. Term for a variety of Raised Markers which may be reflective in character. Studs are often known as Catseyes.
References: UN 1968, MOT HADTS 1969.

2) Traffic Marking Physical Terms - Morphological/Physical

GENERAL NOTE. Many of these terms are considered under a morphological heading. Since the physical dimension is included in the terms they are listed in a Physical Terms category if only briefly.

AMBER MARKERS/GREEN MARKERS/RED MARKERS. OECD includes the colors and code in a discussion of Retro-Reflective Raised Markings in UK.
Reference: OECD

BI-DIRECTIONAL RED & WHITE RETRO-REFLECTIVE MARKERS. Colors of the reflector are included in the name. The term may require a morphological entry though meanings are not ascribed to the colors red and white in this term.
Reference: OECD 1975

BI-DIRECTIONAL EDGELINE MARKERS. Morphology and Physical dimensions are included in the term. Edgeline Markers in a morphological entry explain the use of the Marker.
Reference: OECD 1975

CATS EYE CENTERLINE MARKING. Centerline Markings are included in this study. This term includes the physical aspect.
Reference: OECD 1975

CHANNELIZATION MARKERS. A largely morphological term though it denotes a physical apparatus as well.
Reference: OECD 1975

EDGELINE RAISED MARKERS. A term combining function with physical element.
Reference: OECD 1975

PAINTED LINES. A physical term though line can denote a morphological term or one tending in that direction.
Reference: OECD 1975

RAISED REFLECTIVE LANE MARKERS. A term combining physical and morphology dimensions.
Reference: OECD 1975

3) Other Horizontal Markings

CERAMIC MARKER. A Raised Marker without reflective materials.
Reference: OECD 1975

COLLIMATING SYSTEM. This seemingly refers to glass beads applied to Marking material.
Reference: OECD 1975

COLOURED CEMENT CONCRETE MARKING. A Marking in the shape of stripes in white or yellow and installed at road edges.
Reference: OECD 1975

ELECTRICALLY POWERED EMISSIVE MARKERS. An experimental area of research mentioned briefly in OECD.
Reference: OECD 1975

EXPENDABLE MARKERS. Term for low-cost Marker undergoing evaluation in the US in 1970s.

Reference: OECD 1975

FORMED-IN-PLACE MARKERS. Term for Marking undergoing in 1970s.
Reference: OECD 1975

HOT-APPLIED SURFACE MARKING. Term refers to a form of thermo-plastics employed for Traffic Markings.
Reference: OECD 1975

MAGNETIC MARKERS. Term for Marker undergoing studies in 1970s.
Reference: OECD 1975

PAINT MARKINGS. A general term for all Markings employing paint.
Reference: OECD 1975

PAVEMENT SURFACE MARKINGS. A general term for all Markings applied to pavement surface. Are Raised Pavement Markers included or does this term refer only to Markings literally on the surface?
Reference: OECD 1975

RADIOACTIVE EMISSIVE MARKERS. Term for an experimental Marker mentioned in OECD. Was it ever in actual production?
Reference: OECD 1975

SNAP-OVER MARKERS. A developmental or experimental Marker mentioned briefly in OECD.
Reference: OECD 1975

SURFACE DRESSING MARKINGS. This term is possibly interchangeable with Pavement Surface Markings
Reference: OECD 1975

TRAFFIC PAINT MARKINGS. OECD distinguishes paint forms from thermo-plastics and other materials with this term.
Reference: OECD 1975

5B3 Hazard & Delineation Markings

a) Hazard/Obstruction Markings

General Note. While this form of TCD is found in many systems and nations it is more developed in North America. These terms can be confusing. For the US the general heading is Object Markings while the type of TCD within Object Marking is Object Marker. For Canada the general heading is Hazard Markings and the specific type is Hazard Marker. At one time US Object Markers were known as Hazard Markers (see Reflective Markers).

APPROACH MARKINGS FOR OBSTRUCTIONS. Term for Markings employed for guiding vehicles away from obstructions through use of lanes.
Reference: US MUTCD 2000, 2003

HAZARD MARKERS. Canada 1976 divides this category into two groups: Markings on Object Adjacent to the Pavement and Markings on Objects Within the Roadway. The first group of objects includes bridge piers and abutments, and bridge ends and other fixed hazards. The second group includes safety zones, loading islands, median dividers, bridge piers and abutments, structures with restricted overhead clearances. Approach Pavement Markings for Obstructions Within the Roadway are included with Pavement Markings. Hazard Markers are a standardized unit displaying black/yellow diagonal stripes in the shape of rectangles with vertical emphasis and mounted on a metal post.
Reference: Canada 1976

HIGH-LEVEL WARNING DEVICES (FLAG TREE). Term refers to metal framework from which several flags are attached.
Reference: US MUTCD 1978, 2003

CLEARANCE MARKERS. This term supplied by Homburger 1977 refers to a Marker in California practice. It is of rectangular shape and of two sizes. The smaller has a white ground and three yellow reflectors. It is somewhat similar to the US Type 1 though larger. The second form is similar to Type 3 except that

stripes are black and white instead of black and yellow. Canada 1976 has similar Markings for "low clearance structures."
Reference: Homburger 1977, Canada 1976

MARKERS FOR OBJECTS IN THE ROADWAY/MARKERS ADJACENT TO THE ROADWAY. Older MUTCD editions spoke of objects in or adjacent to the roadway followed by description of Marker. Markers are now added to Objects.
References: US MUTCD 2000 and 2003.

MARKINGS FOR OBJECTS IN THE ROADWAY/MARKINGS ADJACENT TO THE ROADWAY. FHA 1996 uses Markings instead of Markers as found in MUTCD 2000, 2003.
Reference: FHA 1996

MARKING OF OBSTRUCTIONS. This Marking from UN 1968 consists of a panel of diagonal stripes that identify obstructions. The stripes are sharply contrasting but the colors employed are not given. Black/white or Black/yellow patterns are most likely. ECE 1995 follows the same pattern.
References: ECE 1995, UN 1968

OBJECT MARKERS. General Comments. This is the primary term for the US in marking various forms of obstructions. There are three forms in use:

Type 1 consists of yellow reflective discs on a yellow diamond-shaped ground, or yellow discs on black diamond-shaped ground, or simply, a yellow diamond-shaped ground coated with reflective material. Homburger 1977 has a similar Marker though that version can have either yellow or white reflectors.

Type 2 consists of yellow reflective discs on white ground, 6 by 12 inches (vertical dimension), yellow reflective material on metal plate in the same configuration, and yellow reflective material of the same dimensions but horizontal.

Type 3 consists of 12 by 36 inches panels with black/yellow diagonal stripes. There are two forms: a left upward slant form and right upward slant form. The foci of these Object Markers are objects in the roadway, or objects adjacent to the roadway. Stripes painted on larger surfaces such as bridge abutments are also included. Object Markers are within the subdivision of Object

Markings.

A related TCD entity, though separate from Object Markers, is the End of Road Marker which see.

Classification #: 4353 [Object Markings]
Form of Aid: TCD Unlighted Aid
Operation: Reflectorized marking of varying shapes denote obstructions on or near roadway.
Comments: A term both physical and morphological. Its overwhelming use refers to hazards, obstructions.
Reference: Homburger 1977, US MUTCD editions

OBJECT MARKERS ON SHARED-USED PATH. Term denotes objects (fixed) adjacent to path. Markers are what US MUTCD refers to as Type 1, 2, or 3 Object Markers.
Reference: US MUTCD 2003

OBSTRUCTION PAVEMENT MARKINGS/PAVEMENT MARKINGS FOR OBSTRUCTIONS. These terms give appearance of general use terms but specific reference to Obstruction Markings for Bicycles.
Reference: US MUTCD 200, MUTCD 2003

END OF ROAD MARKER/END-OF-ROADWAY MARKERS/END-OF-ROADWAY MARKINGS. The first term from US MUTCD 1978 and 1988 has three versions: red discs on red diamond; red discs on black diamond; and red reflective diamond. The End of Road Marker is within the Object Markings category but apart from Object Markers. MUTCD 2003 employs Roadway and the 2000 edition has Markings not Marker.
References: US MUTCD 1978, 1988

REFLECTIVE MARKERS. This US MUTCD term can be seen as a sub-over-arching term; it includes Hazard Markers and Delineators. US Hazard Markers became Object Markers in newer editions of MUTCD.
References: US MUTCD 1948, 1961

b) Delineators

General Notes. Delineation can refer to any objects and practices that supply guidance and tracking data as noted earlier (RDPHB 1981). This category focusses on those objects usually found at edges of road that are usually mounted on short metal posts. Some terms refer to the function of delineation though that does not negate the physical aspects; other terms refer more to the physical components. There is no hard and fast line between "physiological" and "morphological" dimensions. Delineators may consist of small reflective discs or units of reflective material attached to metal posts.

Messages. Color patterns for US MUTCD editions are from Pavement Edge Markings. Truck escape ramps are marked by red Delineators; red Delineators can also be employed as Wrong Way indicators. US MUTCD editions also refer to Raised Pavement Markers. These are part of the Pavement Markings category, and employed on curves and related situations. Canada 1976 employs white or yellow Delineators according to Pavements Edge Lines norms.
References: US MUTCD editions, Canada 1976

Delineation terms are diverse though referring to a relatively restricted role. They include:

DELINEATION DEVICES/DELINEATORS/ROAD DELINEATORS/ ROAD-EDGE DELINEATORS, POST MOUNTED MARKERS/POST-MOUNTED DELINEATORS/ROAD EDGE DELINEATORS MARKERS/ SHOULDER DELINEATION MARKERS/ROADSIDE DELINEATORS/ ROAD-DELINEATION MARKERS/POST DELINEATORS/ROAD-SIDE DELINEATORS/ROADWAY DELINEATORS.

Classification #: 4350
Form of Aid: TCD Unlighted Aid
Operation: Reflective materials affixed to low-level posts mark edges of roads.
Comments: Delineators can be confused with other forms of Delineation and the general topic of Delineation.
References: MUTCD 1961, 1971, 1978, RDPHB 1981, TCDHB 1983, JHK/FHW 1981, Canada 1981

DELINEATORS-CURB/DELINEATORS. Terms appearing in T-M Studies.
Reference: Part E

GUIDE MARKERS/GUIDE POSTS. The first term serves as a synonym for Delineators in Homburger 1977. RDPHB includes the second term in a source title.
References: Homburger 1977, RDPHB 1983

BIDIRECTIONAL REFLECTIVE DELINEATORS/MONODIRECTIONAL MARKERS. Canada 1976 permits two-sided Delineators on undivided roads. Monodirectional forms are used on divided roads.
References: Canada 1976

CURB MARKINGS FOR ROADWAY DELINEATION. This term is a Pavement and Curb Marking entity; it is included since it is part of delineation. The location is different but the material and focus is the same. This form is applied to island curbs in traffic and serves to direct traffic around an obstruction. Messages employ white reflectorized material if traffic can travel either side of the objection; yellow if to the right only.
Reference: US MUTCD 1988

c) Barricades & Channelizing Devices

General Note. This section often refers to North American practice. International systems give litle -- if any -- attention to these entities; only selective national publications are available outside of North America. This coverage at least suggests term and entries with possible significance outside North America.

CHANNELIZING DEVICES. General Comment. This segment, along with Barricades, was part of the Construction & Maintenance component for US MUTCD until 1978 when a new segment was added to regular Traffic Markings. In Canada these Markings are in the Temporary Signs & Devices category.

Classification #: 4351

Form of Aid: Unlighted TCD Aid
Operation: Devices include Traffic Cones, Tubular Markers for temporary use. Standard colors are employed.
Comments: Objects are of a non-anchored form and easily moved in contrast to nearly all other TCD save many Barricades.
Reference: US MUTCD 1978

CHANNELIZING DEVICES-TRAFFIC CONES. Term appears in variant classification. The general term is made specific by inclusion of specific device.
Reference: Part E

TRAFFIC CONES/TUBULAR MARKERS/CONES/VERTICAL PANELS/ PORTABLE FLASHER SUPPORT/DRUMS. These Safety Aids are orange in color. Other forms include: Vertical Panel (orange and white diagonal stripes); Portable Flasher Support that consists of a barricade board or plank (white and orange stripes on triangular supports). Drums consisting of oil-drums were also employed. They displayed orange/white horizontal stripes or black/white stripes. Canadian drums were mostly orange in color (limited white stripes were permitted).
References: US MUTCD 1978

BARRICADES. US MUTCD has three forms:

Type I. This form is a portable unit with a single, short rail, and a light weight "A" frame support. Color patterns for the rail are orange/white or black/white patterns for Construction & Maintenance. The Non-C & M pattern is in a red/white pattern. All three Types have the same color pattern configuration.

Type II. This form has a single, long rail on a heavy "A" frame structure.

Type III. This form is often of a permanent nature. It has three rails which are fastened to posts or skids.

US MUTCD 1988 does not specify support systems for Barricades in contrast to the 1978 edition.

Classification #: 4350
Form of Aid: Unlighted TCD

Operation: Rails painted in established two-color patterns. Non-C & M forms denoted by different pattern. Reflective materials may be added.
Comments: Barricades are at variance with the general low-level character of Devices in Traffic Marking segment of TCD
References: US MUTCD 1978, 1988

Canada has two versions:

HEAVY BARRICADES and LIGHT BARRICADES. These forms are very similar to the Type III three-rail permanent US version and the Type I light weight single rail type respectively. They display black/orange color patterns.
Reference: Canada 1976

BARRICADES-PORTABLE/BARRICADES-PERMANENT. Terms in variant classification accompanied by specific type.
Reference: Part E

APPENDIX I:
COMPARATIVE SURVEY OF SIGNS
(Adapted from Part E)

i Introduction

The Database is concerned with the individual T-M phenomenon. It is not primarily concerned with the systems that spawn the individual T-M form. Yet a T-M system -- in this case Traffic Signs -- can not be ignored since the Signs are an integral part of a given system. Therefore this Appendix outlines the various systems that include Signs. The basic Sign categories (Warning, Regulatory, Informative) are also integral to the Signs and the systems are presented in that format.

Other topics to be discussed in this Appendix including: 1) What systems are included and what are omitted? 2) The various systems reflect two, and perhaps three "strains" of approaches to Signs; the strains need to be reviewed. 3) The three basic categories of Signs have alternate names in some systems. In addition, there are also sub-categories present in some systems that require inclusion.

Appendix I also includes a review of general terms for Signs. Appendix II takes up general terms for the full spectrum of Traffic Control Devices.

ii Traffic Sign Systems

A four-fold schema can determine which systems are to be included in the Appendix

a) regional systems
b) systems transcending a region
c) global systems
d) national systems transcending a nation.

Regional systems include IAMM 1967, CASATC 1950. ECAFE 1964 is similar to UN GERSS 1952 and therefore not included. ECAFE 1964 remains a source for the individual entities.

UN 1949 may appear global but its sphere of influence was in Europe and selected non-European states. Therefore, it seems reasonable to qualify it as a "system transcending a region."

UN 1968 is global in scope and quite possibly UN GERSS 1952 can be so regarded.

US MUTCD 1961 is an example of a national system which very much transcends a single nation. UK 1950 (its development extended over the years 1903-1950 but reached its final form in about 1950) also has had influence beyond one nation. For this study it is termed OBS 1950 (Old British System) to distinguish it from the newer British system of the 1960s. Much of the UK work took place in 1944 but promulgation did not take place until 1950. UK MOT 1950 prepared a summary history and chart of UK efforts in about 1950. Noble 1946 has considerable coverage of the matter including the 1944 work. Canada's TCD system is important to T-M especially in regard to classification schema and various Sign forms. Yet it does not appear to be a system notably apart from Western Hemisphere practice (Admittedly, that is a view that can be contested). Various provinces worked out practices that incorporated US MUTCD ideas before the Canadian system was created. The Canadian system is not included in the Chart thoughit is a major influence on the Database.

iii Traffic Signs Approaches

There have been two prominent strains or "streams" of Sign systems: The "European system" and the "American system". The first system began on a limited basis in 1909, expanded in 1926, 1928, and 1931. Further work was undertaken in 1938 and 1939, but remained unfinished because of World War II. All but the 1909 effort were under the auspices of the League of Nations. Since the quaternity of 1909-26-28-31 underlays the recognizable "European system" of later years it can be often represented by a combined column in the chart. 1938-1939 represents a further stage in development and requires a separate column. The UN 1949 is an extension and expansion of older efforts and continues the European tradition rather than representing a global effort. It too has a column in the chart.

The "American system", a less cohensive and comprehensive endeavor, has influenced many Western Hemisphere systems as well as the 1952 UN GERSS draft. This system refers primarily to US TCD developments. The 1961 edition of MUTCD is included in the chart because it was in use when UN 1968 took place. The 1948 edition might have been included since it is a factor in UN GERSS 1952. Space limitations as well a shared approach of 1948 and 1961 reduces the need to included 1948.

The 1984 edition of Part E omitted IAMM 1967 in large part because of space considerations. Yet IAMM, even though sharing the American system approach, should be included since IAMM was also influenced by UN GERSS 1952. This created a hybrid system combining the US approach with many graphic symbols (in contrast to mostly word symbols in US 1961). IAMM 1967 is now included in the chart.

UN GERSS 1952 represents a milestone in TCD systems since it brought together notable features of major previous approaches. While it never received international approval it has been employed by several regional and national agencies and has influenced later regional and global efforts including IAMM 1967, ECAFE 1964, and UN 1968. It is included in the chart.

There is a third approach though of a more limited scope: The double panel signs of UK (termed the Old British System (OBS) in T-M studies). This system displays the appropriate symbol accompanied by a rectangular-shaped panel with graphic and/or word symbols. The system evolved over the years 1903-1950 in UK. The upper sign generally followed the European system while the lower Sign was more of a English contribution though graphic symbols followed European designs. CASATC 1950 followed the British pattern; both UN GERSS 1952 and UN 1968 included it though UN 1968 to a lesser degree. LN 1928 is substantially patterned after the UK approach. UN 1968 gives primary attention to two systems but permits usages similar to OBS. UN GERSS 1952 presents a three-fold Sign System approach: European, American, and CASATC/UK.

CASATC 1950 was included in the original chart. OBS 1950 was not included in the 1984 edition of Part E. It is included in this study.

iv Traffic Sign Categories

The Sign categories of Warning, Regulatory, and Informative not infrequently have alternate titles. In addition, there are a variety of sub-category terms in use.

Warning Signs: European agreements from 1909 to 1949 employed the term Danger Signs: UN 1968 compromised with Danger Warning Signs. US practice and IAMM employ Warning Signs; ECAFE also preferred that term. Both CASATC and GERSS adopted the Danger Warning Signs. Some UK sources employ a curious hybrid: Warning and Informative Signs though the former seems to dominate that category; other UK sources employ Warning Signs.

The term Informative Signs is used in the UN 1949, CASATC 1950, and UN GERSS 1950 documents. Older documents were less likely to include this category; the LN 1931 documents included a cumbersome phrase, "Signs Giving Indications Only" for that category. The LN 1939 effort referred to Indication Signs. UN 1968 split this form of Sign into Informative Signs Other Than Parking, and Signs Providing Useful Information on Parking. US and IAMM spoke of Guide Signs instead.

Regulatory Signs includes two basic phrases: prohibitions (acts not to be performed), and mandatory (acts that must be performed). The two basic segments lead to a large variety of terms and sub-terms. LN 1931 included a general category of Signs Giving Definite Information divided into Signs Prohibiting Passage, and Signs Indicating and Obligation. LN 1939 speaks of Prohibitory or Mandatory since each form constitutes a subdivision of that category. UN 1949 provided a general category of Signs Giving Definite Instructions divided into Prohibitory and Mandatory. CASATC 1950 supplied a unified heading of Prohibition and Mandatory.

US, GERSS and IAMM offer a single category of Regulatory Signs. UN 1968 offers a more complex range of terminology: Regulatory Signs Other than Standing and Parking divided into three groups: Prohibitive or Restrictive, Mandatory, and Priority. There is also a special category of Standing and Parking Signs.

Abbreviations for the Chart

W/WO = With, Without
L-C= Level-Crossing
L = Left
R = Right
DRL = Double Bend, Right then Left
C-LC = Center & Left of Center
C-RC = Center & Right of Center
L & R-C = Left & Right of Center
LC/C = Left of Center & Center
T = T-shaped Junction or Intersection
Y = Y-shaped Junction or Intersection
U = U-turns
MV = Motor Vehicles
MC = Motor Cycles

v The Chart

Warning Signs

1909 [pre-LN]/1926/1931 LN
Uneven Road 09/28/31
Gutter Road 26
Sharp Turn 09/26/28/31
Bend 26
Cross-Road 09/26/28/31
Level Crossing 09
LC w/ Barrier 26
LC Guarded 31/Guarded L-C 28
LC Unguarded 26/31/Unguarded L-C 28
Alternative 31/Alternative General Danger 28
Hollow 26
Other Dangers 31
Concerning Right of Way

1939 LN
Uneven Road
Sharp Turn
Single Bend to L, R
Double Bend to L, R
Road End in Junction w/ Another Road
Road in Which Another Road Ends at a Junction
Level-Crossing w/wo Gates
Approach to a School Entrance
Other Dangers
General Danger
Approach to a Major Road
Cross-Road

1949 UN
Uneven Road

Dangerous Bend(s) General, Right, Left, Double Bend to L, R
Road Intersection
Level-Crossing w/wo Gates
L-C in the Immediate Vicinity
Dangerous Hill
Carriagewa Narrows
Opening Bridge
Road Works
Slippery Carriageway
Pedestrian Crossing
Children
Beware of Animals
Intersection w/ a Non-Priority Road
Other Dangers
Priority Road Ahead
Cross-Road

1950 Old British System
Bend
Level Crossing
Two Way Traffic
Round-About
Crossing No Gates
Hill
Low Bridge Headroom
Hump Bridge
Road Junction
Narrow Bridge (or Road Narrows)
Double Bend
Children
School
Signals Ahead
Cross Road

1950 CASATC
Crossroads
Gate or Level Crossing Barrier
Cross-Drain or Dip
Gate & Motor Gate, L, R
Motor Gate
Unguarded Level-Crossing
Level-Crossing Warning Cross
Level-Crossing Stop
Dangerous Curve
Dangerous Junction
Narrow Bridge
Dangerous Fork, Center/LC, C/RC/LC/RC
Danger
Dangerous T-Junction
Dangerous Sharp Turn, R
Dangerous Steep Descent to L, R
Road Narrows Dangerously
Traffic Circle, L, R
Dangerous Reverse Bend Winding to L, R

Children
Overhead Bridge

1952 GERSS
Dangerous Curves, Sharp, R, L, Double
Road Intersections, Cross Road, L, R, T, Y
Intersections with a Minor Road, or Non-Priority Road, Cross Road, L, R, T, Y
Stop Sign Ahead
Priority Road Ahead
Uneven Road
Bump
Dip
Rough Road
Dangerous Hill: Dangerous Ascent, Dangerous Descent
Road Narrows
Narrow Bridge
Opening Bridge
Road Works
Slippery Road
Pedestrian Crossing
Children
Beware of Animals
Low Clearance
Narrow Clearance
Level-Crossing
Level-Crossing Guarded by Gates

1961 US MUTCD
Turn
Curve
Reverse Turn
Reverse Curve
Winding Road
Large Arrow, L, R, Double
Cross Road
Side Road, L or R: 45 degrees or 90 degrees
T Symbol
Y Symbol
Stop Ahead
Yield Ahead
Signal Ahead
Merging Traffic
Pavement-Width Transition
Road Narrows
Narrow Road
One-lane Bridge
Divided Highway
Divided Highway Ends
Two-way Traffic
Hill
Bump
Dip
Pavement Ends

Soft Shoulder
Slippery When Wet
School
School Crossing
Railroad Advance Warning
Railroad Crossbuck
Crossing Signs: Cross-Walk, Deer, Trucks, Pedestrian, Cattle
Double Arrow
Low Clearance
Advisory Speed
Advisory Exit
Traffic Signal Speed

1967 IAMM
Turn, L, R
Curve, L, R
Winding Road
Reverse Turns
Reverse Curves
Cross Roads
Side Road
T
Y
Successive Tees
Traffic Circle
Merging Traffic
Signal Ahead
Stop Ahead
Street Car Crossing
Rough Road
Bump
Dip
Hill
Road Narrows
Narrow Bridge
Drawbridge
Road Repairs Ahead
Temporary Two Way Ahead
Directional Arrow
Bi-Directional Arrow
Falling Rocks
Slippery When Wet
Loose Gravel
Cyclists
Farm Machinery
Pedestrian Crossing
School Zone
Children
Cattle Crossing
Deer Crossing
Low Clearance
Limited Width
Unprotected Railroad-Crossing

Protected Railroad-Crossing
Railroad Crossbuck
Divided Highway
End of Divided Highway
Airplane
Cross-Wind

1968 United Nations
Dangerous Bends, L, R, DBLR, DBRL
Dangerous Descent
Steep Ascent
Carriageway Narrows
Swing Bridge
Road Leads onto Quay or River Bank
Uneven Road
Slippery Road
Loose Gravel
Falling Rocks
Pedestrian Crossing
Children
Cyclists Entering or Crossing
Cattle or Other Animal Crossing:
  Wild, Domestic
Road Works
Light Signals
Airfield
Cross-Wind
Two-Way Traffic
Other Dangers
Cross-Roads
Stop Sign Ahead
Yield Sign
Level Crossing w/wo Gates
Tramway Intersection
Level Crossing Immediate Vicinity
Level Crossing-Additional Panels

Informative Signs

1931 LN (Signs Giving One Indications)
Authorized Parking Place (& 1928)
Caution
First-Aid Station
Place
Direction

1939 LN (Caution Signs & Indication Signs)
Caution Signs
  Caution
  Approach to a School Entrance
Indication Signs
  Authorized Parking Place
  First-Aid Station
  Place

Direction
Advance Direction

1949 UN
Indication Signs
Parking
Hospital
First-Aid Station
Mechanical Help
Telephone
Filling Station
Priority Road
End of Priority

Advance Direction & Direction Signs
Place & Route Identification Signs

1950 Old British System
Direction Signs
Parking Place Signs

1950 CASATC
Curve
Fork, L & R, LC/C
Junction
Sharp Turning to R, L
Steep Winding Descent, L, R
Road Narrows
T Junction
Hospital
First Aid
General
Pedestrian Crossing
Telephone
Filling Station
Service Station
Loading Zone
Rank for Taxis
Parking
Bus Stop
Tram Stop
Second Stage

Major Road Ahead
Advance Direction & Direction Signs
Place & Route Identification Signs
Direction
Place Names
Descriptive
Route Markers

1952 GERSS
Advance Direction Signs
Direction Signs

Route Markers
Signs Givin General Information

1961 US MUTCD
Route Markers & Auxiliary Markers
Route
Auxiliary Route Markers
Confirming & Reassurance Route Markers
Junction Markers
Combination Junction
Advance Turn Arrows
Directional Arrow
Directional Assemblies
Alternative Route Markers
Temporary Markers
Alternative Markers
By-Pass Marker
Business Route Marker
Detour Marker
Detour Arrow Sign
Cardinal Direction Marker
Trailblazers
Distance & Destination Signs
Destination
Distance
Street Names
Expressway Directional
Gore
Exit Direction
One-mile Advance
Two-mile Advance
Next Exit
Information Signs
Rest & Information
Service
Next Services
Parking Area
Mile Posts
Information

1967 IAMM (Guide Signs)
Route Markers
City Name
Traffic Flow Indication
Road Open or Closed Sign

General Information & Auxiliary Signs
Parking Allowed
Phone Service
Mechanic Service
Gas Service
First Aid
Sanitary Facilities
Restaurant

Hotel/Motel
Camping
Airport
Ferry Boat
Trolley Parking
Caravan Site
Bus Stop
Protected Pedestrian Walk
Advanced Guide Signs

1968 UN
Informative Signs Other Than Parking Signs
Advance Direction Signs
Direction
Place Identification
Confirmatory
Pedestrian Crossing
Other Signs Providing Useful Information for Drivers of Vehicles: Hospital, One-Way, No-Through Road, Tramway Stop, Road Open or Closed with Panels
Signs Giving Notice of Facilities Which May Be Useful to Road Users:
First Aid
Miscellaneous
Signs Providing Useful Information on Parking
Parking
Exit from Limited Duration Parking Zone

Regulatory Signs

1928 LN
Signs Prohibiting Passage
All Vehicles Prohibited
Motor Traffic Prohibited
Motor Lorries Prohibited
Motorcycling Prohibited
Cycling Prohibited
Riding Prohibited
Speed-Limit
No Entry
Compulsion Direction
No Waiting
Vehicles Weighing Over ... Tons Prohibited

1931 LN (Signs Giving Definite Instructions)
Signs Prohibiting Passage
Closed to all Vehicles
One-Way Road or Entry Prohibited
Certain Classes of Vehicles Prohibited:
All, M, MC
Weight Limit
MV Weight Over 5.5 Tons
Maximum Speed
Waiting Prohibited
Parking Prohibited

Signs Indicating an Obligation
Direction to be Followed
Stop Near Custom-House

1939 LN (Prohibitory or Mandatory Stop)
Prohibitory Signs
Closed to all Vehicles
One-Way Road or Entry Prohibited
MV Prohibited
MC Prohibited
MV (MV, MC) Prohibited
Pedal Cycles Prohibited
Weight Limit
Maximum Width of Vehicles
Maximum Height of Vehicles
Speed Limit
Stop Near Customs Office
Waiting Prohibited
Stopping Prohibited
Mandatory Signs
Direction to be Taken
Road to be Taken by Cycles
De-restrictions on the Removal ...

1949 UN Signs Giving Definition Instructions
Prohibitory Signs
Closed to all Vehicles in Both Directions
No Entry for all Vehicles
Turning to the R, L Prohibited
Overtaking Prohibited
No Entry for all MV Except MC w/o Sidecars
No Entry for all MV
No Entry for Goods Carrying Vehicles Exceeding ... Tons Laden Weight
No Entry for Pedal Cyclists
No Entry for Vehicles Having Overall Width Exceeding ... Metres (... Feet)
One-Way
No Entry for Vehicles Having an Axle Weight Exceeding ... Tons
Speed Limit
End of Speed-Limit
No Entry for Vehicles Having Overall Height
No Entry for Vehicles Having Overall Height Exceeding ... Metre (... Feet)
No Entry for Vehicles Exceeding ... Tons Laden Weight
Stop at Intersections
Stop (Customs)
Restricted Stopping or Waiting
Waiting on Alternate Sides

Mandatory Signs
Direction to be Followed
Compulsory Cycle Track
Compulsory Minimum Speed

1950 Old British System
Prohibitory Signs
Prohibition of:
Waiting
Parking
Speed (Over Given Limits)
Exclusion of Types of Traffic or all Traffic (From Specific Roads)
Mandatory Signs
Directions on:
Turns, L, R
Keep L, R
Halt- Major Road
Children Crossing

1950 CASATC (Prohibitory & Mandatory Signs)
Restriction Notice
No Overtaking
Speed Limit
Stop
Speed Limit Restriction
De-restriction Notice
Level Crossing Stop
No Parking
Stop-signal for Scholar Patrol
Compulsory Cycle Track
No Stopping

1952 UN GERSS
Stop
Direction Prohibited
Turning to the R, L, Prohibited
About-Turn (U-Turn) Prohibited
Overtaking Prohibited
No Entry for Vehicles Having an Overall Width Exceeding ... Metres (... Feet)
No Entry for Vehicles Having and Overall Height Exceeding ... Metres (... Feet)
No Entry for Vehicles Exceeding ... Tons Laden Weight
Speed Limit
Direction to be Followed
Restricted Parking
Parking Prohibited
No Entry for Goods-Carrying Vehicles
No Entry for MV
No Entry for Bicycles
Horn Blowing Prohibited

1961 US

Stop
Yield
Speed Limit
Special Speed Limit
Night Speed Limit
Minimum Speed Limit
Speed Zone Ahead
End ... Mile Speed
Turn Prohibited, R, L, All, U
Lane-Use Control Signs at Intersections
Do Not Pass
Pass with Care
Slower Traffic Keep Right
Truck Use Right Lane
Truck Lane ... Feet
Keep Right
Do Not Enter
No Trucks
Trucks Excluded
Commercial Vehicles Excluded
Pedestrians Prohibited
One-Way
Two-Way Traffic Ahead
End-One-Way
Parking & Stopping
No Parking on Pavement
No Parking Except on Shoulder
Walk on Left
Pedestrian Crossing
Keep Off Median
Road Closed ... Miles Ahead
Local Traffic Only
Weight Limit

1967 IAMM

Stop Sign
Yield
Do Not Enter
No Left Turn/No Right Turn
No U-Turn
No Parking
Restricted Parking
No Parking & No Stopping
Do Not Overtake
Do Not Change Lane
No Trucks
No Passenger Cars
No Animal-Drawn Carts
No Bicycles
No Farm Machinery
Maximum Load
Maximum Height
Maximum Load Per Axle

Maximum Length Permissable
Maximum Speed
Silence
Customs
Chains (or Spikes) on Tires
Keep Your Right
Compulsory Circulation
Turn Left Only
Turn Right Only
Keep Straight
Trucks to Right-Lane
Two Way Traffic Ahead
No Pedestrians
Pedestrians to the Left

1968 UN
Regulatory Signs Other Than Standing & Parking
Priority Signs
Give Way
Stop
Priority of Road
End of Priority
Priority for Oncoming Traffic
Priority over Oncoming Traffic
Prohibitive or Restrictive Signs
No Entry
Closed to all Vehicles in Both Directions
No Entry For ...
Driving of Vehicles Less Than ... Metres (...Yards) Apart Prohibited
No R/L Turns
No U-Turns
Overtaking Prohibited
Overtaking by Goods Vehicle Prohibited
End of All Local Prohibitions
End of Speed Limit
End of Prohibition on Overtaking
Passing w/wo Stopping Prohibited (Customs)
Mandatory Signs
Direction to be Followed
Pass This Side
Compulsory Roundabout
Compulsory Cycle Track
Compulsory Foot Path
Compulsory Track for Riders on Horseback
Compulsory Minimum Speed
End of Compulsory Minimum Speed
Snow Chains Compulsory
Standing & Parking Signs
Parking Prohibited
Standing & Parking Prohibited
Alternated Parking
Limited Duration Parking Zone

vii Overarching Terms for Traffic Signs

The basic overarching and sub-overarching terms within Traffic Signs are considered early in the Appendix. However, there is no "natural" place for listing and describing general Sign terms whether primary, historical, or peripheral terms. A section might be added to one of the three chapters on Traffic Signs for that topic but no one chapter represents all Signs. This Appendix provides a more adequate venue for overarching terms.

The terms include:
Highway Signs
Road Signs
Roadside Traffic Signs
Road Traffic Signs
Sign Boards
Signing
Signs
Street Traffic Signs
Traffic Signs

The three most important terms are Signs, Road Signs and Traffic Signs. Signs is a pivotal term for Communication and Semiotics. Confusion results in the theoretical, overarching use of the terms Sign, and the specific use of the same term. Some TCD sources employ the term Sign internally in publications after first employing a compound term for the titles of publications. For example, Canada refers to Traffic Signs in table of contents and general usage but then refers to Signs or a sub-category such as Regulatory Signs.

Road Signs is a frequency employed term by many systems including UN, ECE, IRF, IAMM. The term refers to the road rather than to vehicular traffic. A similar approach can be seen with Road Signals and Road Markings. There is an underlying rationale and philosophy when a source uses Traffic (indicating movement of vehicles) in conjunction with T-M terms while another source employs Road indicating the surface over which vehicles travel.

Canada and the US often use the term Traffic Signs; that is the basic Sign for the category. The US includes Traffic Signs in glossaries and introductory coverage but employs the single word Sign in tables of contents and general coverage. While Signs and their usage are essentially the same the use of road or traffic suggests a difference in approach.

A variety of other terms and composite terms can be found in the literature. Sign Posts and Sign Boards appear in older and historical usage. Both terms may suggest the physical aspect of the Sign

but not the but not the message dimension. Yet the message aspect is an integral part of the Sign Post and Sign Board. Highway Signs find occasional use though it is more common in older sources. It enjoys some recent use in the work of the International Conference on Highway Sign Symbology (1972).

League of Nation documents often refer to Road Signalling. However, that term has little, if anything, to do with Traffic Signals. Instead, it applies mostly to Signs. Other terms include a composite term of Road Traffic Signs (from Zuniga who has roots in the Western Hemisphere); Roadside Traffic Signs (from Tripp, an English source); Street Traffic Signs (from Hawkins whose writing focuses on the history of US TCDS and documents). Occasional use is made of Highway Symbol Signs and Symbol Signs; the later term can be easily confused with studies in the vein of communication and semiotic studies.

The term Traffic Signs -- along with Traffic Signals and Traffic Markings -- is preferred in this study. The terms suggest vehicles more directly Road -- at least in US practice -- may seem to suggests one type of surface for travel while streets and highways are other surfaces. In short, road does not seem to be a fully overarching term.

Appendix II: Overarching & Category Terms

i General Overarching Terms

The several chapters of the monograph offer an appropriate venue for those overarching terms representing to the categories of Road/Traffic Signs, Signals, Markings. The Appendix has been added to in order to encompass overarching terms for the full spectrum of devices. A summary listing of terms for each of the categories is also included as are cross- categories terms.

The Western Hemisphere and Australia includes a full-spectrum term: Traffic Contol Devices (TCD). The term, of US provenance (TCD was coined in 1934 and 1935 though the process of development is unknown), includes all forms of safety aids that focus on road and traffic needs. However, the term has not found universal application. In fact, there is no alternative term in European practice. Probably the only alternative terms are Road Devices in Australia, and Traffic Devices by a US author.

UN 1949, UN 1968, and UN GERSS 1952 employ Road Signs and Signals which would seem to exclude Road Markings. However, Road Markings are included in those publications even if absent from the titles.

ECAFE 1964 employs a cumbersome title: Road Signals, Signs, Pavement Markings & Signs for Road Works; at least it is comprehensive.

League of Nations publications use Road Signals (1931) and Road Signalling (1928, 1933 revision of LN 1931, and 1939). The terms are employed either as an overarching term for the full spectrum of Safety Aids or perhaps as an virtual synonym for Signs since LN publications are mostly Sign-orientated in content.

Zuniga offers an overarching term that is comprehensive though more wordy than TCD: Signs, Signals, Markings. The term is satisfactory if the user is aware that the unqualified terms of Zuniga's terms refer to road safety concerns.

A review of general overarching terms for other T-M forms may be instructive as a backdrop for TCD terms. Marine and Aeronautical Safety Aids have overarching terms (at least for some nations): Marine Aids to Navigation, Aeronautical Navigation Aids. But Railway/Railroad Safety Aids lack an over-arching term. Often times Railway/Railroad Signals includes all forms of Safety Aids including Rail Signs, Rail Markers. That situation is reminiscent of terms for road safety for a variety of systems, of nations. Traffic Control Devices seems a plausible term for the field though admittedly it has not met with universal acceptance.

ii Major Terms for the Categories of Traffic Control Devices

There are several terms for each of the categories of Signals, Signs, Markings together. The following list is a summary of those terms:

Traffic Signals:	Traffic Lights, Traffic Light Signals, Traffic Signals, Traffic Control Signals/Signals for Vehicular Traffic
Traffic Signs:	Road Signs, Traffic Signs, Road Traffic Signs, Highway Signs, Roadside Traffic Signs
Traffic Markings:	Road Markings, Traffic Markings, Pavement Markings, Carriageway Markings

Note: Traffic Signs is outside of the classification system for T-M. And while it is the primary Sign term, it is missing from the three chapters on Signs since each takes up one basic form. Traffic Markings is also absent from the classification. Traffic Signs and Traffic Markings need to be included in a revised T-M classification.

iii Cross-Category Terms

A variety of systems have reorganized parts of the Sign categories or

created special categories. Often times the Signs within those segments are very similar to the Signs of the regular categories though Signs may be included. They include:

UN GERSS 1952 has no special categories though Level-crossing Gates, Lights are attached to Warning Signs for level-crossings.

UN 1949 has a section called "Supplementary Provisions Concerning Level-Crossings." It contains Panels, Signs, Gates, Half-Gates, Signals. Signs are primarily in the Warning group.

UN 1968 has rearranged a variety of categories:
Regulatory Signs Other Than Standing & Parking Signs
Informative Signs Other Than Standing & Parking Signs
Regulatory Signs Other Than Priority, Standing & Parking Signs
Standing & Parking Signs
Signs for Road Works (Includes Markings by lights or reflecting devices and also barriers)
Level-Crossings (Gates, Half-Gates, Lights, Panels)
Signs Regulating Priority at Intersections, Danger Warning Signs at Approaches to Intersections & Signs Regulating Priorities on Narrow Sections of Roads

The Database has retained the basic categories of Informative, Regulatory, Warning Signs despite UN 1968. The basic groups remain valid though the complex UN pattern is a valuable corrective to misconceptions on the workings of Signs.

Canada 1976 includes a Temporary Conditions Signs and Devices category. This category refers to Construction and Maintenance and other short-term situations. Some of the Signs are special to that category while others are similar to regular Signs though color usage is at variance.

US MUTCD 1978 has several special categories:
Traffic Controls for Streets & Highway Construction & Maintenance

(the 1988 edition adds Utility & Emergency Operations to that category)
Traffic Controls for Schools Areas
Traffic Control Systems for Railroad-Highway Grade Crossings
Traffic Controls for Bicycle Facilities

UK MOT (Old British System) has a category of Warning & Informative Signs whose Sign are nearly all are of a warning nature with the remaining Signs similar to Regulatory Signs.

CASATC 1950 includes categories of Temporary Road Signs, and Traffic Light Signs (the later includes Signals and various Signs/Lights Assemblies).

BIBLIOGRAPHY

Sources Other Than Codes

Brandes, William C. 1940. Traffic Color Sequence. *Traffic Engineering.* June: 23-4.

Clearman, Brian. 1997, 2007. *Transportation-Markings Database: Marine.* 1st and 2nd ed. St Benedict (OR): Mount Angel Abbey

Comprehensive Bibliography for Roadway Delineation Practices Handbook. 1979. San Francisco: JHK & Associates.

Eagle Signal Company. "Eage Traffic Beacons and Flashers." Bulletin B-10. Austin, Texas.

Eliot, William C. 1960. Symbology & the Highways of the World. *Traffic Engineering.* December: 18-24.

Evans, Henry K. ed. 1950. *Traffic Engineering Handbook.*. New Haven (CT): Institute of Traffic Engineering. 2nd ed.

Finnbogason, W.H. 1963. Uniformity of Traffic Control Devices in Canada. *Traffic Engineering.* August: 23-27, 54.

Fullerton, I.J. (R.A. Presby, Bibliography). 1981. *Roadway Delineation Practices.* Washington, D.C.: US Federal Highway Administration. (Performing Organization: JHK & Associates.

Hammond, Harold F. & Sorenson, Leslie J. eds. 1941. *Traffic Engineering Handbook.*. New York: Institute of Traffic Engineering & National Conservation Bureau.

Hawkins, H. Gene. 1992. Evolution of the MUTCD: Early Standards for TCDs. *ITE Journal.* July: 23-26.

___. 1992. Evolution of the MUTCD: Early Editions of the MUTCD. *ITE Journal.* August: 17-23.

___. 1992. Evolution of the MUTCD: The MUTCD Since World War II. *ITE Journal.* November: 17-23.

___. 1994. New Developments with the MUTCD. *ITE Journal.* February: 16-21.

Homburger, Wolfgang S, and Kell, James H. 1977. *Fundamentals of Traffic Engineering.* Berkeley: Institute of Transportation Studies, University of California. 9th ed.

___. and Hall, Jerome, Reilly, William, Sullivan, Edward. 2001. *Fundamentals of*

Traffic Engineering. Berkeley: Institute of Transportation Studies, University of California. 15th ed.

International Muncipal Signal Association. 1981. *Traffic Signal Manual.* 2nd ed. Chicago: IMSA.

International Road Federation. 1984. *European International Road Sign System.* Geneva & Washington, D.C.: IRF.

____. ud. Inter-American International Road Sign System.

Johnson, A.E., ed. 1965. *American Association of State Highway Officials: A Story of the Beginnings, Purposes, Growth, Activities, and Achievements of AASHO.* Washington, D.C.: American Assocation of State Highway Officials.

Johnson, I.R. 1980. *Evaluation of Symbols for Traffic Signs.* Vermount South, Victoria (Australia): Australian Road Research Board.

Keller, Allen W. 1931. Street Traffic Control & Regulation in Europe. *Proceedings of the Annual Meeting of the 2nd Annual Meeting of the Institute of Traffic Engineering.* Chicago, October 10-15, 1931.

Krampen, Martin. 1983. Icons of the Road. *Semiotica: Journal of the International Association for Semiotic Studies..* Special Issue. Volume 43-1.2.

Macnee, W.Q. 1960. Uniform Traffic Control Devices for Canada. *Traffic Engineering.* August: 18-19, 39-40.

Mueller, Edward A. 1970. Aspects of the History of Traffic Islands. *Institute of Electric & Electronic Engineers Transactions on Vehicular Technology.* Volume VT-19 #1. February: 6-17.

Noble, Dudley. 1946. *The Book of Road Signs.* London: William Clowes & Sons for British Road Federation.

O'Dea, William T. 1958. *The Social History of Lighting.* London: Routledge and Kegan Paul.

Proceedings: International Conference on Highway Sign Symbology. Washington, D.C. June 5-6, 1972. Washington, D.C.: International Road Federation and US Department of Transportation, Federal Highway Administration.

Research on Road Traffic. 1965. HMSO: London.

Road Marking & Delineation. 1975. Organisation for Economic Co-operation & Development. Paris: OECD.

Sessions, G.M. 1970. *Traffic Devices: Historical Aspects Thereof.* Washington, D.C.: Institute of Traffic Engineers.

Traffic Light. 2005. *Wikipedia--The Free Encyclopedia.* http://en.wikipedia.org/wiki/Traffic_signal. 4-10-05.

United Kingdom. ca. 1950. History and Development of Traffic Signs. [Handout]. London: Ministry of Transport.

United States. USDOT Federal Highway Administration. 1983. *TrafficDevices Control Handbook..* Washington, D.C.: GPO.

Wainwright, W. Scott. 2005. Global Harmonization of Traffic Control Devices: What are the Opportunities? www.ite.org/conference papers/CB05B2301. (10-08-2007).

Webster, F.V. 1960. *Traffic Signals.* Harmondsworth (Mdsx), UK: Road Research Laboratory.

___. and Cobbe, B.M. 1966. *Traffic Signals.* Road Research Technical Paper #56. London: HMSO.

Wiring Materials and Power Apparatus. 1947. General Electric Supply Corp. Grand Rapids (MI): The Jaqua Company.

Sources: Codes

Australia. 1975. Australian Committee on Road Devices. *Manual of Uniform Traffic Control Devices.* Part I, Description of and Use of Elemental TCDs. (AS 1742). North Sidney: Standards Association of Australia.

Blanchard, A.H., ed. 1919. *The American Highway Engineers Handbook.* New York: Wiley.

Bowman, Brian L. 1995. Application of Supplemental Warning Devices. *ITE Journal.* August.

California Department of Transportation (Caltrans). 1981. *Traffic Manual.* Sacramento: Caltrans.

Canada. Council on Uniform TCD for Canada. 1976. *Uniform Traffic Control Devices for Canada.* Ottawa: Roads & Transportation Association of Canada.

___. 1985. *Sign Pattern Manual.* Ottawa: Roads & Transportation Association of Canada.

Central & Southern Transport Conference. 1950. *Final Acts & Related*

Documents. Johannesburg: Provisional Organisation for Central & Southern African Transport.

Convention with Respect to the International Circulation of Motor Vehicles. 1909. Paris. (Cd 5125). London: HMSO, 1910.

European Conference of Ministers of Transport. 1972. *European Rules Concerning Road Traffic Signs, and Signals.* Paris: European of Ministers of Transport.

Jones, Robert, & Hawkins, H. Gene. 1997. *ITE Traffic Signing Handbook.* Washington, D.C.: ITE.

Kuemmel, David. 2000. Accessible Pedestrian Signals. *ITE Journal.* March.

Lay, M.G. 1990. *Handbook of Road Technology.* 2nd ed. Volume I, *Planning & Pavements.* Volume II, *Traffic & Transport.* New Brunswick (NJ): Rutgers University Press.

League of Nations. 1931. *Convention Concerning the Unification of Road Signals.* European Conference on Road Traffic. (C.231 M. 99. 1931, VIII, 3-16--3-30). [Revised 1933]. Geneva.

___. 1926. *International Convention Relative to Motor Traffic.* (Paris). (Cmd 3510, Treaty Series No. 1). London: HMSO.

___. 1928. *Report of the Permanent Committee Road Traffic Regarding Road Signalling.* Advisory and Technical Committee for Communications and Transit. Geneva. C.C.T./C.D.R./12.

___. 1939. *Draft Resolutions.* Geneva. 3027, C.C.T./C.D.R./12. (And table of illustrations, ud).

Manitoba. Manitoba Public Insurance. 2007. Signs and Signals (Driver Handbook). http://www.mpi.mb.ca./english/english.html. (10-28-07).

Ontario. Ministry of Transportation. 2003. Road Signs in Ontario. http://www.mto.gov.ca/english/traveller/signs/. (10-28-07).

Pan American Highway Congresses. 1967. *Interamerican Manual: Traffic Control Devices for Street and Highways.* Washington, D.C.: PAHC.

___. 1981. *Revision Del Manual, Capitulo: Senales.* Mexico City.

Tripp, Alker. 1950. *Road Traffic and Its Control.* London: Edward Arnold Co.

Turkey. 1975. *Trafik Isaretleri Elkitabi.* Ankara: Bakim Daire si Baskanligi Trafik Fens Heyiti Muduriluga.

United Kingdom. ca. 1950. British Road Signs (Broadside). London: Ministry of Transport. [Referred to as OBS in study: Old British System].

UN. 1949. *Convention on Road Traffic*. Geneva.
UN. 1968. *Convention on Road Signs and Signals.* Vienna.
UN. 1968. *Proposals, Suggestions, and Observations Concerning the Draft Convention on Road Signs and Signals.*
UN. Economic Commission for Asia & the Far East (ECAFE). 1964. *Code for a Uniform System of Road Signals & Signals, Pavement Markings & Signs for Road Works in the ECAFE Region.* Saigon.
UN. Economic Commission for Europe. 1957. *European Agreement on Road Markings.* Geneva.
UN. Economic Commission for Europe. 1995. *Amendment 1. Convention on Road Signs & Signals.* Geneva.
UN. Group of Experts on Road Signs & Signals. 1952. *Final Report by the Group of Experts on Road Signs & Signals to the 6th Session of the Transport & Communication Commission.* New York.
United States. 1948. *Manual of Uniform Traffic Control Devices.* Public Roads Administration. Washington, D.C.: GPO.
____. 1961. *Manual of Uniform Traffic Control Devices.* Bureau of Public Roads, Department of Commerce. Washington, D.C.: GPO.
____. 1971, 1977, 1988, 2000, 2003. *Manual of Uniform Traffic Control Devices.* FHA, US DOT. Washington, D.C.: GPO.
____. 1996. *Notice of Proposed Admendments to the Manual of Uniform Traffic Control Devices.* FHWA Docket No. 96-47). Part III, IV, & VII.
____. 1979. Road Symbol Signs. FHA, US DOT. Washington, D.C.: GPO.