Analysis of gaps of the provisions relating to National technical regulations on traffic signs and signals (QCVN41: 2012/BGTVT and some renew points (QCVN41: 2016/BGTVT)

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- Road signaling system includes warning signs, road markings, and other devices defined functions and instructions implementing traffic rules on the road; provisions in QCVN41: 2012, issued in 2012.
- On May 10th 2014, Vietnam has joined in the Vienna Convention (1968) for road signs and signals.

➔ System basic road signs must conform to the provisions of the Vienna Convention.

- Some existences for signal system in Vietnam today:
 - ✓ Inconsistencies between the meaning of signs, painted lines (marks) with their effective application in practice.
 - Many instruction signs but they has stipulated penalties and are mandatory for traffic participants to obey.
 - ✓ Not meet the actual requirements

- Lack of regulation of the speed restriction signs on the types of vehicle, according to the lane; mixed signs, others; regulations on reflective, reflective tacks.

- Some existences for signal system in Vietnam today :
 - ✓ The size of some signals is not reasonable and some in particular, is smaller than the real exploitation.
 - The size of some signals is not suitable for speed real exploitation leading to the unsure vision; The size and letters, numbers, figures on the signals are not sure for the necessary vision distances.
 - ✓ Some regulations are not clear resulting in the arbitrary use, lack of national unity
 - Abusing usage, installing more signals than real demand (especially signals of danger).
 - Color, pictures, symbols on signs are not uniform.

- Some existences for signal system in Vietnam to:
 - ✓ Road marking system:
 - Discretion in allocating the road markings does not allow changing lanes.
 - Many existence for the heart of prohibited road markings overtaking within the curve lines.
 - ✓ Lack of consistency between signal systems, markings and lights control.
- The aforementioned existences partly come from the subjective elements of the implementation, however, partly are also the limitations, gaps in the current regulations in Vietnam, especially the provisions in QCVN 41: 2012/BGTVT.

- The general issues of the sign system :
 - ✓ QCVN41:2012 has also differences with the Vienna Convention for the classification of signals
 - Vienna Convention has divided into 4 groups: signs prohibition, of hazard warning signs, of order; of direction
 - QCVN41: 2012 has divided into 6 groups: signs prohibition, of hazard warning signs, of order; of direction, of subsigns, of using on road routes by the GMS agreement.

- The general issues of the sign system :
 - ✓ Some signs were arranged into the unsuitable sign groups
 - Priority road sign Group included: number plate 401 "Start priority roads", plates 402 "End of priority roads" placed in direction sign groups; and number plate 122 "Stop" on the prohibited sign groups are unsuitable (these signs must be placed on the command groups).
 - Some: number plate 403a "road for cars", number plate 403b "road for motors and cars", number plate 420 "start into populated areas" placed in direction sign groups (by QCVN41:2012) these signs must be placed on the command groups.

- The general issues of the sign system :
 - ✓ Some signs were arranged into the unsuitable sign groups
 - Many signs in QCVN41: 2012, there were still regulations such orders "must follow" is inconsistent with the spirit of the Vienna Convention.
 - Terminology, definitions of QCVN41: 2012 was incomplete, some Terminologies and definitions are no longer updated, as appropriate. Important concepts such as crossroads, populated areas ... also no specific quantitative criteria.

- About the response of sign systems comparing to actual requirements :
 - ✓ Not fully meet organizating transportation situations, distributions in urban lanes
 - The local application is still an inconsistency.
 - ✓ Using many subsigns that causes misunderstanding for road users
 - Taxi prohibited signs need to integrate "taxi" into simple signs, need not use subsigns.

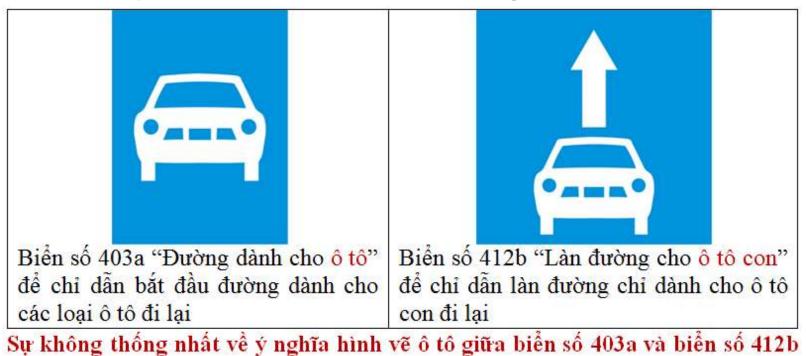
- About the response of sign systems comparing to actual requirements:
 - ✓ Using too many signs of warning closely caused poor sights
 - No provisions on distance for signs of danger warning and provides for the disposition for signs of danger warning in case there are many factors that are potentially dangerous for the concentration in short distance.
 - ✓ The speed limit signs are no solid scientific basis. Provisions on speed restriction applies to both night road operators will reduce the effectiveness.
 - ✓ Sign formality: there have been signs with changed information, therefore, we should have the provisions for this type of signs.

- ✤ About the size of signs:
 - ✓ QCVN41:2012 sizes of signs are selected according to the speed of the road design (except for urban roads)
 - The size requirement of the signs depended directly on the vehicle speed so the selection of the size of signs according to the speed design is limited;
 - Some signs are located on road divided barer of urban roads need small size to fit reality.

- Lack of common rules for the system of warning signs on highways:
 - ✓ National technical regulations on signposts on the highway NTR 83: 2015 / BGTVT make regulations only turn directions on highways.
 - Others signs are now applied according to QCVN41 2012 while QCVN41 2012 mainly applies to ordinary road (not motorway/highways);
 - Due to highways, there are different characteristics so the regulations, specific guidelines applied to motorways/highways should also be specified.

- No specific provisions on color, size drawings, symbols and units of measurement on signs :
 - ✓ Colors, drawings on signs in reality not completely uniform because there is no specific regulation
 - ✓ Some symbols of measurement units in QCVN41:2012 not are completely uniform (such as: symbols of km somewhere is "km" but somewhere is "KM"; some is "T", but some is "t"...) that is not suitable to Measurement Unit Law 04/2011/QH13 starting from 7/2012

- There still exists some signs causing misunderstandings for the read users :
 - ✓ QCVN41:2012 There still exists some signs that are the same symbols but different meanings.



- Roand marking lines (painting road lines):
 - ✓ Regulations on specific road markings under speed design (Vtk> 60 km / h and ≤ Vtk 60 km / h) is still.
 - ✓ Structure system painting road lines (road markings) under Annex G and H for 2 roads (typing different barcode) are difficult for vision.
 - ✓ Many markings are included in Appendix G is not found in appendix H, and vice versa, while it is necessary to have this marks in reality.
 - ✓ Bar code numberings are unreasonable: a barcode number is essentially the application of other basic barcode on specific situations.

- ✤ Road marking lines (painting road lines):
 - Existing many shortcomings to middle painting road lines dividing into bidirectional vehicles:
 - Provisions on the type of middle painting road lines with function for overtaking ban are also inconsistent, incomplete or not specific.
 - No rules and guidelines for determining the length and position in prohibited passing zone.
 - Not to mention the important elements in the placing road markings, no passing in the middle of the road, such as the length of the permit to overtake and no passing to overtake beyond the minimum; The minimum width of the road markings on placing road markings for overtaking ban.

- The inadequacies of the system ancillary works and traffic safety solutions :
 - ✓ Provisions on the appropriate marker is only the marker material by concrete, reinforced concrete or wood
 - ✓ Provisions on current columns "km" are inappropriate when placed outside columns "km" out of protective railing; is also no regulations on placing columns "km" in width separating strips as large separating strips;
 - ✓ About pile H: need additional regulations consistent H type deposit in case the roadside layout of protective railing;
 - ✓ No regulations on arrangement of reflective nail in Regulation.

SOME CHANGES IN QC41-2016

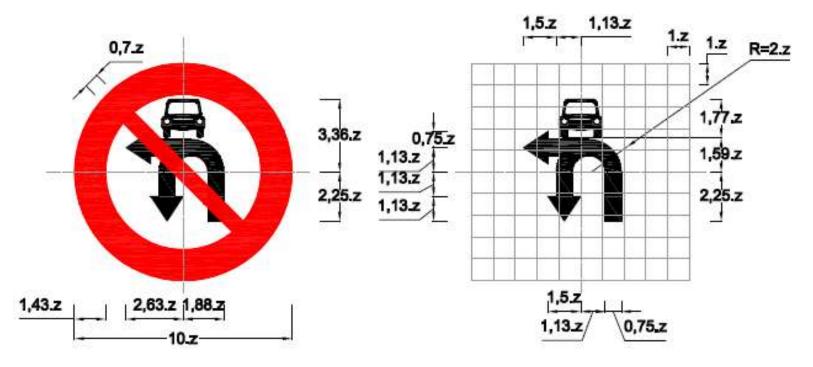
- Regarding terminology, concepts :
 - ✓ Reviewing and editing to ensure the accuracy, completeness, and consistency with the legal texts related
 - Some terminology, important concepts such as: where the intersecting roads, the road through densely populated areas etc .. regulations with specific criteria, applying to the fact.

- Adjusting the points that are inconsistent with the Vienna Convention :
 - ✓ Classification by the Vienna Convention signs.
 - ✓ Differentiate and clearly define the meaning and function of each group.
 - ✓ Reviewing and adjusting some signs by QCVN41: 2012 that are into directed sign but in fact signs under the Vienna Convention

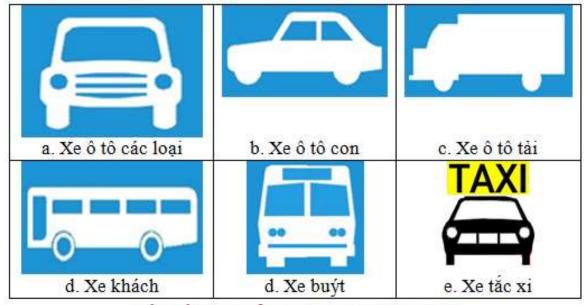
- Limiting abuse placing too many warning signs of danger through specified distance between warning signs of danger :
 - ✓ Regulations on the arrangement of warning signs of danger in the case of dangerous elements together to focus on a short distance in the direction of just using a warning sign of danger and annotate on the scope of action of the.
- reviewing sign group regulating to limit the maximum speed in the direction of more precise and more practical.
- Additional provisions for the type of electronic signs with information may be changeable over time.

- Look at replacing the selection for size of signs prescribed by size according to the type of road signs :
 - ✓ Additional regulations on the size and layout manner when signs arranged in tight spaces where, on rural roads, on roads with large-scale cross section, combining multiple signs on the same plate panels ...
- Additional general provisions for warning signs of danger on motorways/highways

Specifying color (color code), detail drawings, symbols on the signs through detail design on signs:



Uniform regulations meaning of the shapes, symbols on the signs ensure the principle of each figure, symbol that are used to express a defined meaning



Đề xuất các biểu tượng các loại xe ô tô

- About markings: only use the yellow middle painting lines for roads. Also need more specific regulations about middle painting lines in cases with meaning: no overtaking, the minimum length of roads with a middle painting line.
- For subworks: to provisions opening the shape, size and material (only clearly defined functions and the basic requirements) and also pay attention to the actual installation.
- Additional regulations on the layout of the nighttime navigation device as reflective nails, reflective target to meet the demand for these devices is increasing.

Conclusion

- Some regulations in QCVN41:2012 there are some shortcomings needing to mend, including:
 - ✓ Some regulations are not in line with the Vienna Convention (1968).
 - ✓ Not meet actual requirements
 - ✓ Some contents are contradictory, not specific, not easy in application.

The change in QC41-2016 has met requirements to meet the practical innovation operators in Vietnam, updated scientific progress in the world and in accordance with the Vien Convention

