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**PROPOSAL FOR RECLASSIFICATION OF PROCLAIMED ROADS
IN NAMIBIA**

INCLUDING GUIDELINE FOR ROAD CLASSIFICATION

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**KM International AB
P O BOX 7124
S-170 07 SOLNA
SWEDEN**

**In association with
VKE (Namibia) Inc.,
Nordic Consulting Group
and SweRoad**

PROPOSAL FOR RECLASSIFICATION OF PROCLAIMED ROADS IN NAMIBIA

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PROPOSAL FOR RECLASSIFICATION OF PROCLAIMED ROADS IN NAMIBIA

1. Background

A first draft version of this report was submitted to MWTC on 5 December 1997. The contents of the report were discussed in detail in a meeting with representatives of the Ministry and consultants BICON and Stewart Scott Namibia on 4 February 1998. This version of the report has been adjusted in accordance with the comments received in the meeting and in further consultations with the Ministry and the abovementioned consultants. It also contains a brief guideline for the Ministry and the Roads Authority on how to handle road classification issues in future. The guideline (Appendix 1) is based on the assumption that the amendments to the Roads Ordinance 1972 proposed in this report are in place.

2. Proposed Amendments to the Road Classification System for Namibia

2.1 Present classification system

The four categories of proclaimed roads, *viz.* trunk, main, district and farm roads, are defined in the existing Roads Ordinance (Ord. 17 of 1972) as follows:

Definition

Art. 23 (1) “The Minister may -

- (a) declare a proclaimed road which is or will be part of the road system connecting Namibia as a whole with surrounding territories, to be a trunk road;
 - (b) declare a proclaimed road which connects or will connect important centres within Namibia to be a main road;
 - (c) declare a proclaimed road which carries or will carry a reasonable amount of traffic to be a district road;
 - (d) declare a proclaimed road which it considers important enough to be a farm road.”
-

There is in fact a fifth category of proclaimed road, service roads, which forms part of a freeway system and links properties, situated along the freeway, with an interchange to provide access to the freeway. Such a road must also be approved by the Minister.

The classification system proposed herein is based on function. The current definitions fit well into current international practice, where the Namibian trunk and main roads, from a functional point of view, would correspond to arterial roads, district roads would correspond to collector or access roads and farm roads would correspond to access roads. Therefore, only minor amendments to the existing classification system seem to be necessary.

2.2 Proposed amendments to the classification system

2.2.1 Trunk Roads (TR)

The existing definition in the Roads Ordinance of a trunk road seems adequate and no change is considered necessary. However, it seems necessary to clarify the statement in the Ordinance by a separate Regulation or guideline which specifies in more detail the intentions of the Ordinance. The main reason is that there is a number of roads crossing international borders which cannot reasonably constitute the status of a trunk road. The following statement is proposed to be included in the Regulation.

Trunk Roads typically

- constitute the backbone of the national road network;
- connect the national capital and the most important regional centres¹ through the most frequented border crossings and major ports with the neighbouring countries and the sea.

2.2.2 Main Roads (MR)

The main roads concept is also well established and does not call for any major change. However, the definition requires from the Minister to decide which centres are important or not. In addition, the Consultant has found that a number of main roads, particularly in the commercial farming areas, do not primarily connect centres but rather serve as arterial roads in those areas. The following alternative general definition in the Roads Ordinance should be considered.

“The Minister may -

¹ A regional centre is defined by the seat of a Regional Council. There are 13 Regions in Namibia.

- (a)
- (b) declare a proclaimed road which is of strategic importance for the development of the regions within Namibia to be a main road;
- (c)
- (d)”

In a Regulation by the Minister and/or in a Guideline by the Roads Authority there should be a clarification of the main functions of a main road, for example:

Typical main roads

- connect regional centres with each other if not connected by a trunk road;
- connect regional centres with district centres²;
- connect economic growth points with the regional centres;
- connect district centres with each other;
- connect important tourist areas or centres with the trunk road network; or
- serve as arterial roads in large farming areas.

2.2.3 District Roads (DR)

Since the present definition of a district road is not based on function the following amendment is suggested:

“The Minister may -

- (a)
- (b)
- (c) declare a proclaimed road which is of importance for the development of a district to be a district road;
- (d)”

In a Regulation by the Minister and/or in a Guideline by the Roads Authority there should be a clarification of the main functions of a district road, for instance:

Typical district roads

- carry a reasonable amount of traffic;
- connect economic growth points with district centres; or

² A district centre is defined by the seat of a Local Authority. There are 29 Local Authorities in Namibia.

- serve as collector roads in areas of importance to national economy (industry, agriculture, tourism, etc.), nature and environment within a district.

2.2.4 Other roads

There does not seem to be any reason at this stage to change the definition of a farm road, a minor road or a private road in the Roads Ordinance.

The main objective of a farm road seems to be to provide access (right of way) to farms without direct access to the proclaimed road network. In principle this is also relevant in communal areas where no private land tenure exists.

3. *Application of the Amended Road Classification System*

3.1 Approach

The Consultant has reviewed in some detail the existing classification of trunk and main roads in the whole of Namibia by DOT Road Maintenance Region.

The main sources of information have been

- DOT Geographic Information System (GIS);
- DOT Traffic Surveillance System (TSS);
- DOT Data of Tarred Roads, Key Plan Showing Total Lengths and Completion;
- DOT Magisterial District Maps
- Herero Roads Master Plan, 1991;
- Ovambo Road Master Plan, 1992;
- Kavango Roads Master Plan Study (in progress);
- Caprivi Roads Master Plan Study, 1998;
- Roads Ordinance; and
- interviews with DOT staff.

The work has been focused on the trunk and main roads, incorporating assessments of potential reclassifications of the existing trunk and main road system, but also potential upgrading of district roads to main or trunk roads.

The suggested definitions mentioned in Chapter 2 have been applied.

The results of the analysis in the form of suggested amendments to the road classifications are presented in the attached maps, one for each of the five DOT Road Maintenance Regions (“region” hereafter).

3.2 General comments

The overall structure of the road network from a classification point of view seems fairly adequate in the Keetmanshoop and Windhoek Regions. It was observed that the Estimated Average Annual Daily Traffic (EAADT 1997) volumes on the main roads in those regions were in the range of 10-40 vehicles per day with a few exceptions. Nevertheless those main roads were as a rule well in conformity with the proposed classification system.

In the other regions on the other hand there is an obvious need for the reclassification of a number of district roads to the status of main road. Those roads are often quite long, and carry at least the same traffic volumes as, and often significantly more than, main roads in the South. There are in general also considerable gaps in the main road system in the northern half of Namibia.

3.3 Trunk roads

The Consultant supports the proposal for a new trunk road between Gobabis and Grootfontein as presented in the Herero Roads Master Plan. Since the existing MR72 would then link that new trunk road with TR1/10 Tsumeb - Ondangwa, MR72 should also be classified as a trunk road.

The trunk road between Hardap and Stampriet (TR5/1) is questioned. By definition it should be classified as a main road.

The trunk road between Otjiwarongo and Outjo (TR2/5) should also be a main road for the same reason.

District Road 3513 between Katima Mulilo and Wenela on the border with Zambia needs to be reclassified as trunk road.

3.4 Main roads

3.4.1 Keetmanshoop Road Maintenance Region

The road classification in this region seems quite adequate. The following amendments are however proposed in order to conform with the amended classification system:

1. Upgrading of district road DR716 between Rosh Pinah and Aus to the status of main road, connecting a major industrial centre to a trunk road;
2. the link road connecting Oranjemund to the Trunk and Main Road system will have to be classified as main road after completion of the intended feasibility study to determine its alignment; and

3. down-classification of Main Road 24 connecting Koës with Mariental and Keetmanshoop to district road is proposed since the area is well served by TR1/3, MR29, MR30 and MR 33.

3.4.2 Windhoek Road Maintenance Region

The road classification in this region seems quite adequate. The following reclassifications to district road status of the main road system should be considered:

1. MR41 between present trunk road TR5/1 (Witvlei Farm) and main road MR79 (Derm W.O.), which carries only 10-25 vpd and is to some extent a duplication of main road MR33;
2. MR94 and MR95 in Mariental which are very short (3 and 6km respectively) and only seem to serve local traffic; and
3. the eastern section of MR39 between MR32 and the Botswana border due to the dormant status of the border post.

3.4.3 Swakopmund Road Maintenance Region

The commercial farming areas of this region are well supplied with main roads. District roads DR1935 and DR2306 should however be considered for classification as a main road linking Usakos (Junction T2/2) and Okombahe (Junction MR64).

There also seems to be a need for the following new main roads:

1. along the coast from Henties Bay to the junction with DR3245 (existing DR2301 and DR2302);
2. linking Khorixas with the mentioned coastal main road at the junction with DR2302 South of Torra Bay along existing roads DR2620 and DR3245;
3. linking Khorixas via DR3245 to Sesfontein and Opuwo through the southern and central parts of the Kunene Region;
4. linking Kamanjab via DR2620 (Grootberg Road) with Palmwag; and
5. linking Opuwo with Okahao via MR100 and DR3614.

3.4.4 Otjiwarongo Road Maintenance Region

The commercial and communal farming areas of this region are well supplied with main roads. The main exceptions to be upgraded to main roads are:

1. DR2137 between Otjosundu and Okandjatu; and
2. DR1692 from trunk road TR6/2 via Helena to Talismanis/Rietfontein.

The Consultant can only support some of the proposals for new main roads in the Herero Roads Master Plan.

The areas covered by the master plan are now parts of the Districts of Otjinene, Okakarara, Grootfontein and Tsumkwe. The following extensions of the main road network are supported:

1. Drimiopsis - Epukiro (Existing DR1668);
2. Okangoho (Junction DR3822) - Okamatapati, along existing DR3802;
3. Otjinene - Epukiro (Junction DR3301), along existing DR3808;
4. Epukiro - Okatuwa, along existing DR3301;
5. Okakarara - Otjituuo, along existing DR3822; and
6. Okakarara - Otjinene, along existing DR3823.

The ongoing settlement in the Gam area can be regarded as the basis for a growth point which will constitute a main road between Otjinene and Gam. It seems best located along the existing DR3806, a new link eastward from DR3806 at the junction with DR3601 up to a point south of Gam, ending with a new link northwards to Gam.

Main road MR73 should be considered for reclassification to the status of district road since the mining activities at Abenab have ceased.

3.4.5 Oshakati Road Maintenance Region

In the Katima Mulilo District a main road (Existing DR3511) seems justified between Kongola (Junction TR8/6) via Linyanti to Katima Mulilo (Except for a section West of Linyanti it carries 80-140 vpd).

In the Mukwe District the existing DR3403 between Bagani and Mohembo at the Botswana border should be considered for classification as a main road. It is an arterial route for tourism between Namibia and Botswana.

In the highly populated areas in Tsumeb, Eenhana, Oshakati and Uutapi Districts the following reclassifications to main road status are suggested:

1. Oshakati (MR92) - Onuuno (TR1/11) along existing DR3620;
2. Okahao (MR111) - Uutapi (MR92) along existing DR3612; and
3. Ondangwa (TR1/11) - Eenhana (MR110) along existing DR3622.

Apart from connecting regional and district centres, and growth points, they are all rather long, carry a fair amount of traffic and serve as arterial roads in highly populated areas.

An extension of the existing MR75 Tsumeb - Tsintsabis to Mpungu (MR110) mainly along DR3600 should be considered. This would provide a considerable shortcut between the area in development around Mpungu, Nepara and Nkurenkuru and the trunk road network at Tsumeb.

As for the Swakopmund Region, there seems to be a need for a main road linking Opuwo and Okahao via existing MR100 and DR3614.

3.5 District roads

Classification of new district roads would be beyond the scope of the NTMPS.

The proposed definition and further explanations offered in Chapter 2 and Appendix 1 should be sufficient as a guideline for the future classification of district roads.

APPENDICES

APPENDIX 1. GUIDELINE FOR CLASSIFICATION OF PROCLAIMED ROADS IN NAMIBIA

1. Purpose

1.1 General

The purpose of this guideline is to facilitate the classification of proclaimed roads in Namibia. It will primarily be used by the Ministry of Works, Transport and Communication and the Roads Authority as a basis for decision-making on road classification. It should also be used by consultants and other interested parties in master plans or other road network studies.

1.2. Objectives of Road Classification

The following main objectives have been identified:

- Basis for road numbering as a guidance to the travelling public (implies that the numbers are physically shown on road signs and maps);
- Basis for road design criteria;
- Basis for distribution of responsibility for different parts of the road system;
- Basis for Road Management Systems, *e.g.* for detailed location of road data; and
- Basis for planning of road construction and maintenance.

The common target for the Namibian system for road classification is the function of each road. A functional classification system satisfies the abovementioned objectives.

2. Current Legislation

2.1 Roads Ordinance

The four categories of proclaimed roads, *viz. trunk, main, district and farm roads*, are defined in the Roads Ordinance (Ord. 17 of 1972, as amended) as follows:

Definition

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- (b) declare a proclaimed road which is of strategic importance for the development of the regions within Namibia to be a main road;
- (c) declare a proclaimed road which is of importance for the development within a district to be a district road;
- (d) declare a proclaimed road which it considers important enough to be a farm road.”

3. Guideline for Road Classification

3.1 Trunk Roads

Trunk Roads typically

- constitute the backbone of the national road network;
- connect the national capital and the most important regional centres¹ through the most frequented border crossings and major ports with neighbouring countries and the sea.

¹ A regional centre is defined by the seat of a Regional Council. There are 13 Regions in Namibia.

3.2 Main Roads

Typical main roads

- connect regional centres with each other if not connected by a trunk road;
- connect regional centres with district centres²;
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3.3 District Roads

Typical district roads

- carry a reasonable amount of traffic;
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APPENDIX 2 (Road Maps by DOT Road Maintenance Region)