FILLING STATION DEVELOPMENTS

ACCESS- & BUILDING LINE MANAGEMENT

TECHNICAL OVERVIEW & GUIDELINES
INTRODUCTION

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PURPOSE OF THE PRESENTATION

To give a broad overview of the policies, standards and specifications that govern the Department in making informed decisions based on the suitable position for the access from the development to the provincial road.

Two main types of accesses that we normally consider:

1) Agricultural type which are accesses to Farms or farm stalls.

2) Those with spatial planning elements which are accesses to developments, businesses activities etc.
Applications are regulated in terms of the following legal documentation:

- Advertising on Roads and Ribbon development Act, 1940 (Act 21 of 1940)
- Roads Ordinance, 1968 (Ordinance 4 of 1968)

Applications are further considered with the adoption of the design principles from the following documents:

- Sanral Design Manual
- TRH 17 – Technical Recommendations for Highways
- UTG 1 – Geometric Design of Urban Arterial Roads
- South African Road Traffic Signs Manual – Chapter 2 (Road Marking Applications)
ACCESS MANAGEMENT POLICY

The Department formulated an access management policy in order to maintain the integrity of high order roads and to minimise conflict areas by making use of engineering principles, knowledge and experience. It is without a doubt that traveling speeds on major arterial and rural roads are incredibly high.
OBJECTIVES-

Access design must make it possible for cars, trucks and busses to move safely to and from public roads and therefore the following objectives should be borne in mind in respect of design standards:

- Protection of the original design intent of the road being accessed
- Minimisation of the speed differential between through-traffic and vehicles using the access
- Elimination of the encroachment of turning vehicles on adjacent lanes
- Provision of adequate sight distances
- Provision of adequate storage on the access road; and
- Minimisation of conflict point
TYPICAL EXAMPLE – PRIMARY ROAD P54/4
TYPICAL EXAMPLE – PRIMARY ROAD P54/4
REQUIREMENTS FOR FILLING STATIONS
LOCATION OF FILLING STATIONS

• It is expected that the majority of sites with respect to applications for filling stations will be situated at intersections or junctions due to the greater volume of traffic usually occurring there.

• The location of access to filling stations and the points from which distances are measured which are of importance in the theoretical analysis of the guidelines and with which the design must therefore comply are indicated by the following symbols:
Figure 5.1: Schematic representation of positions of various speeds
<table>
<thead>
<tr>
<th>SPEED FOR WHICH ACCESS IS DESIGNED (km/h)</th>
<th>REQUIRED DISTANCE (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SIGHT DISTANCE $S_s$</td>
</tr>
<tr>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>70 – 80</td>
<td>115</td>
</tr>
<tr>
<td>90</td>
<td>135</td>
</tr>
<tr>
<td>100</td>
<td>155</td>
</tr>
<tr>
<td>120</td>
<td>205</td>
</tr>
</tbody>
</table>

**TABLE 5.1 :** DISTANCES WITH WHICH THE DESIGN OF A FILLING STATION MUST COMPLY
Typical example of access on curves

Minimum $R=2500m$
**OTHER REQUIREMENTS**

1. **Median Barrier** - When the traffic volume on a single-carriageway road exceeds 6000 vehicles per day, an access from the development will not be allowed unless a median barrier is installed.

2. **Access at T-junctions** - Will not be considered.

3. **Traffic Impact studies** - Should concentrate mainly on the placing and layout of the accesses.

5. **Building Restrictions** - The following is applicable in term of legislation:
   - Radius of 500m measured from centre point of intersection
   - Distance of 95m measured from the centre line of passing roads
B-Areas not suitable for filling stations

This area is not suitable for filling stations

Provincial Road
A-Areas suitable for filling stations

B-Areas not suitable for filling stations
ADMINISTRATIVE MATTERS

Institutional - applications can be posted to the:

Director: Infrastructure Planning
Chief Directorate Roads
P.O. Box 119
Bloemfontein
9300

or delivered at

Room 111
Medfontein Building
152 St Andrew Street
Bloemfontein
THANK YOU