

- That, although the roundabout indicated on Plan no BC/1221/01i shows one circulating lane, provision has been made that a second circulating lane could be added on the inside of the lane indicated when two circulating lanes are required in future;
- That a number of alternative scenarios were investigated in order to determine the maximum development potential of the site and that the analyses show that with the improvements to the road infrastructure as mentioned in the report, up 30 000 m² GLA could be developed;
- That sufficient space should be provided for a future dedicated left turn lane on the Sandbaai Main Road approach at the R43/Sandbaai Main Road-intersection;
- That a concern is that should the filling station access be closed (no left in/left out access) the layout received from EFG Engineers is such that the fuel truck to the filling station will not be able to exit and that the filling station access should, for this reason, be retained as a left in/left out access in order to accommodate this movement;
- That the proximity of the proposed building (as obtained from EFG Engineers) to the sidewalk at the roundabout should be noted and considered by the local authority;
- That three (3) bays within the shopping centre's parking area on the eastern side of the centre will be reserved for public transport vehicles;
- That the intention is to provide 6 bays per 100m² GLA of retail area, which means that 1 200 parking bays will be provided for the proposed 20 000 m² GLA and that this parking will be provided by means of ground level parking and basement parking;
- That there are existing sidewalks along the R43, with pedestrian crossings at the R43/Sandbaai Main Road-intersection traffic signals;
- That there is a public transport vehicle embayment next to the R43 westbound, just west of Sandbaai Main Road and that provision will be made for pedestrians from this embayment to the shopping centre.

13. Recommendations

The recommendations made in the traffic impact assessment for Erf 1447 can be summarised as follows:

- That the access off Sandbaai Main Road should be located opposite the access servitude to Timbali Village by means of a roundabout with one (1) circulating lane as indicated on Plan BC/1221/01i (Layout Plan) and that the roundabout should allow for a second lane for future use;
- That a left in/left out access be provided on the R43 with a dedicated left turn lane and an acceleration taper approximately 220 metres from Sandbaai Main Road as indicated on Plan BC/1221/01i (Layout Plan);
- That sufficient space be allowed for a future dedicated northbound left turn lane on Sandbaai Main Road at the R43-intersection as indicated on Plan BC/1221/01i (Layout Plan);
- That a paved sidewalk should be provided on the western side of Sandbaai Main Road for the length of Erf 1447 to tie in with the sidewalk along the R43 and that footways be provided from this sidewalk as well as from the public transport embayment adjacent to the R43 to the shopping centre;
- That the parking provided should, as a minimum, be in accordance with the requirements of the Local Authority and that the final Site

Development Plan should ensure proper traffic flow within the basement parking area;

- That a minimum of three (3) parking bays within the shopping centre's parking area should be reserved for public transport vehicles; and
- That the conditions as contained in the Provincial Roads Engineer's letter with reference 13/3/5/1-21/73 (JOB 17207) dated 10 June 2009 be implemented by the Local Authority;
- That with the implementation of the Bergsig Street link between Onrusrivier and Sandbaai and/or developments such as the Commonage, the section of Sandbaai Main Road between the R43 and Bergsig Street should be upgraded to a dual carriageway; and
- That the existing access to the Engen filling station should, in future when the mentioned section of the Sandbaai Main Road is upgraded to a dual carriageway be changed to a left in/left out access.

We trust that you will find the traffic impact assessment in order. Please contact Liezl du Plooy at telephone number 082 338 6466 if any further information is required.

Yours truly



Liezl du Plooy (Pr. Eng)
On behalf of: iCE Group

Copy to : The District Roads Engineer
Provincial Government: Western Cape
Private Bag X6003
Suider-Paarl
5216

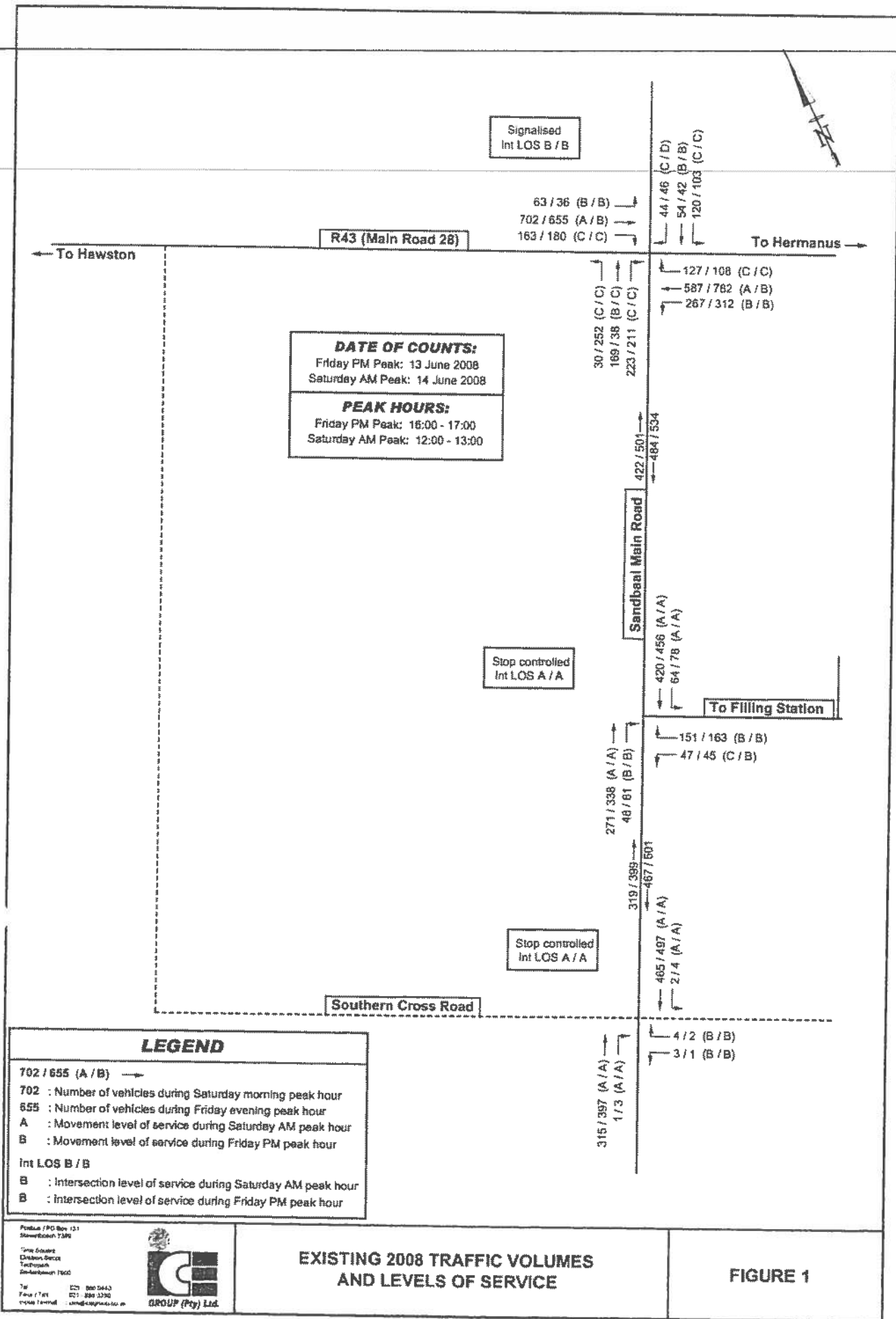
Table 2: Development possibilities based on road network capacity

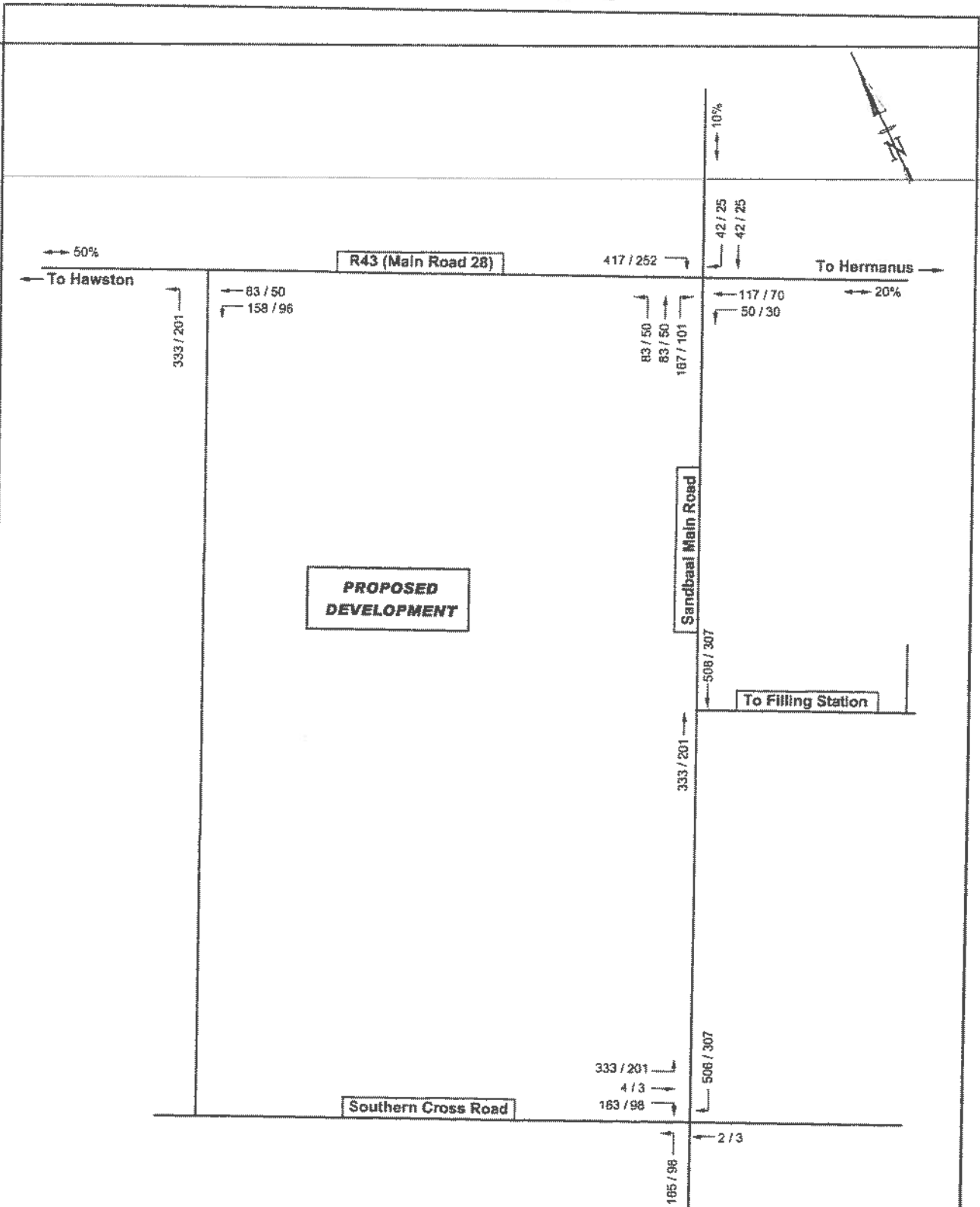
	Road network ¹	Access ²	Max GLA ³	Engen traffic ⁴	Access control @ SBM Entrance ⁵	Int LOS ⁶	Move LOS ⁷	on ⁸
1	R43 only	R43, Sbaal Main	20000	Exist access	Single lane roundabout	C	D	SMR south
2	R43 only	R43, Sbaal Main	21000	Exist access	Single lane roundabout	C	F	SMR south
3	R43 only	R43, Sbaal Main	16500	Opposite Mall	Single lane roundabout	C	E	Timball
4	R43 only	R43, Sbaal Main	20000	Opposite Mall	Single lane roundabout	E	F	SMR south
5	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	20000	Exist access	Single lane roundabout	B	D	SMR south
6	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	22500	Exist access	Single lane roundabout	C	F	SMR south
7	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	20000	Opposite Mall	Single lane roundabout	F	F	SMR south
8	R43 only	R43, Sbaal Main	25000	Exist access	Single lane round with slip SMR S	C	D	SMR north
9	R43 only	R43, Sbaal Main	27500	Exist access	Single lane round with slip SMR S	D	F	SMR north
10	R43 only	R43, Sbaal Main	20000	Opposite Mall	Single lane round with slip SMR S	D	F	Timball
11	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	30000	Exist access	Single lane round with slip SMR S	C	D	SMR north
12	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	35000	Exist access	Single lane round with slip SMR S	E	F	SMR north
13	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	20000	Opposite Mall	Single lane round with slip SMR S	C	F	Timball
14	R43 only	R43, Sbaal M	30000	Exist access	Two-lane roundabout	B	D	SMR south
15	R43 only	R43, Sbaal M	32500	Exist access	Two-lane roundabout	D	F	SMR south
16	R43 only	R43, Sbaal M	25000	Opposite Mall	Two-lane roundabout	B	C	SMR south
17	R43 only	R43, Sbaal M	25000	Opposite Mall	Two-lane roundabout	D	F	SMR south
18	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	30000	Exist access	Two-lane roundabout	C	D	SMR south & north
26	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	33000	Exist access	Two-lane roundabout	D	F	SMR south
28	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	27500	Opposite Mall	Two-lane roundabout	B	C	SMR south
29	R43 and Bergsig link to Onrus	R43, Sbaal M, Berg	30000	Opposite Mall	Two-lane roundabout	C	E	SMR south & Timball

1) "Road network" indicates the available roads linking Sandbaai to Onrus

2) "Access" indicates where the shopping centre will obtain access from. The access alternatives are the left in / left out on the R43 (R43), full access on Sandbaai Main Road (Sbaal M) and the exit to Bergsig Street via the servitude (Berg).

- 3) "Max GLA" indicates the maximum Gross Lettable Area (m²) that can be developed with the given set of road network, access and intersection control permutations.
 - 4) "Engen traffic" indicates whether traffic to and from the Engen filling station and associated land uses will make use of the existing Sandbaai Main Road access, or whether Engen traffic will have a left in / left out access at the existing position with an alternative entrance / exit via Timbali Village Road, opposite the new shopping mall.
 - 5) "Access control @ SDM Entrance" indicates the intersection control measure at the Sandbaai Main Road (SBM) / Shopping Centre Access intersection. The alternatives are a single lane roundabout, a single lane roundabout with a continuous turn lane (slip lane) on the southern Sandbaai Main Road approach, and a two-lane roundabout.
 - 6) "Int LOS". Service level at the Sandbaai Main Road / Shopping Centre Access intersection.
 - 7) "Move LOS". Shows the worst movement service level for the given set of measures. Although the intersection service level may still be acceptable (LOS D or better), some of the movement service levels will become unacceptable.
 - 8) "on" indicates the approach on which the worst movement service level will be experienced.
- Indicates the greatest GLA that can be achieved for the given set of circumstances.



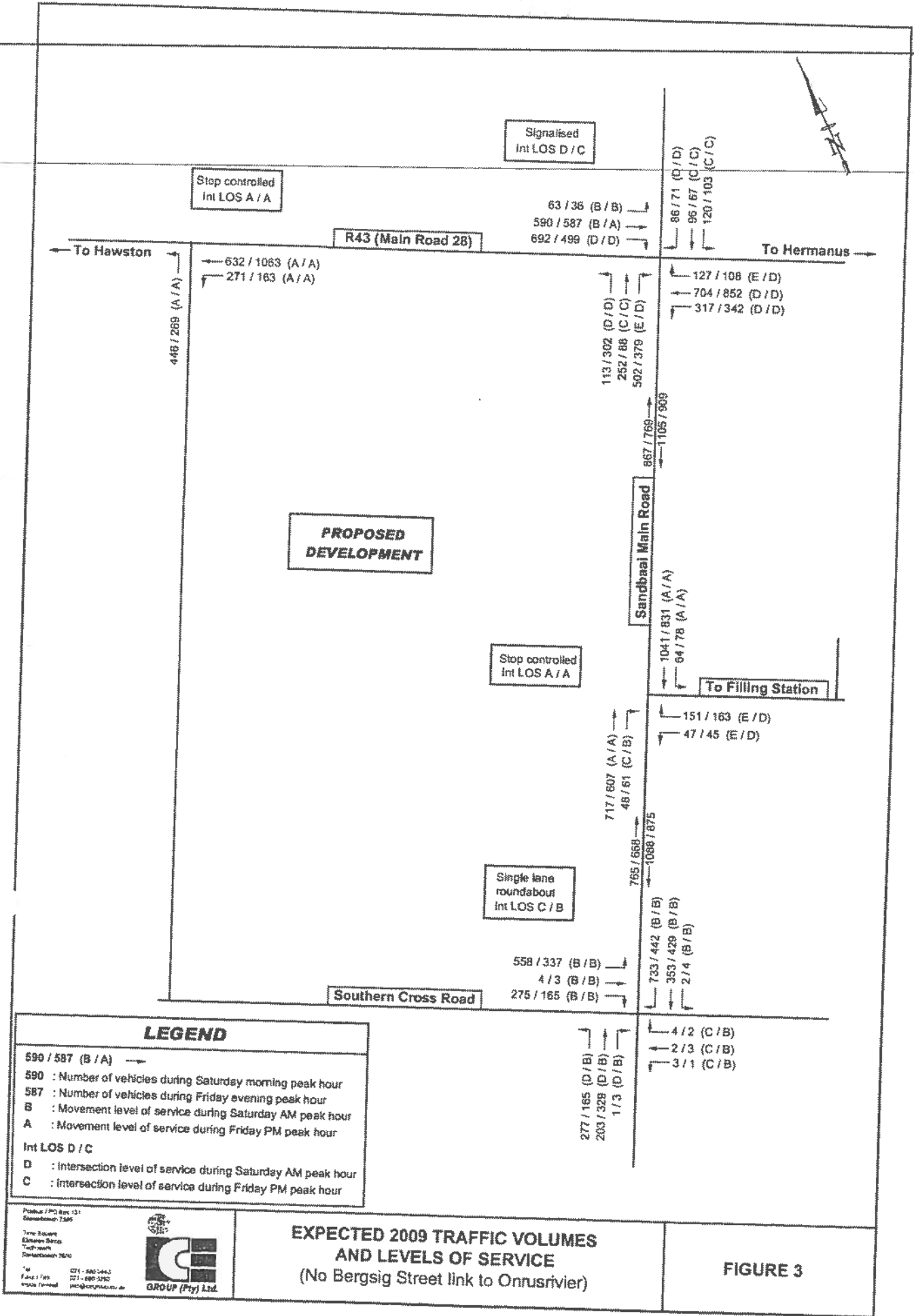


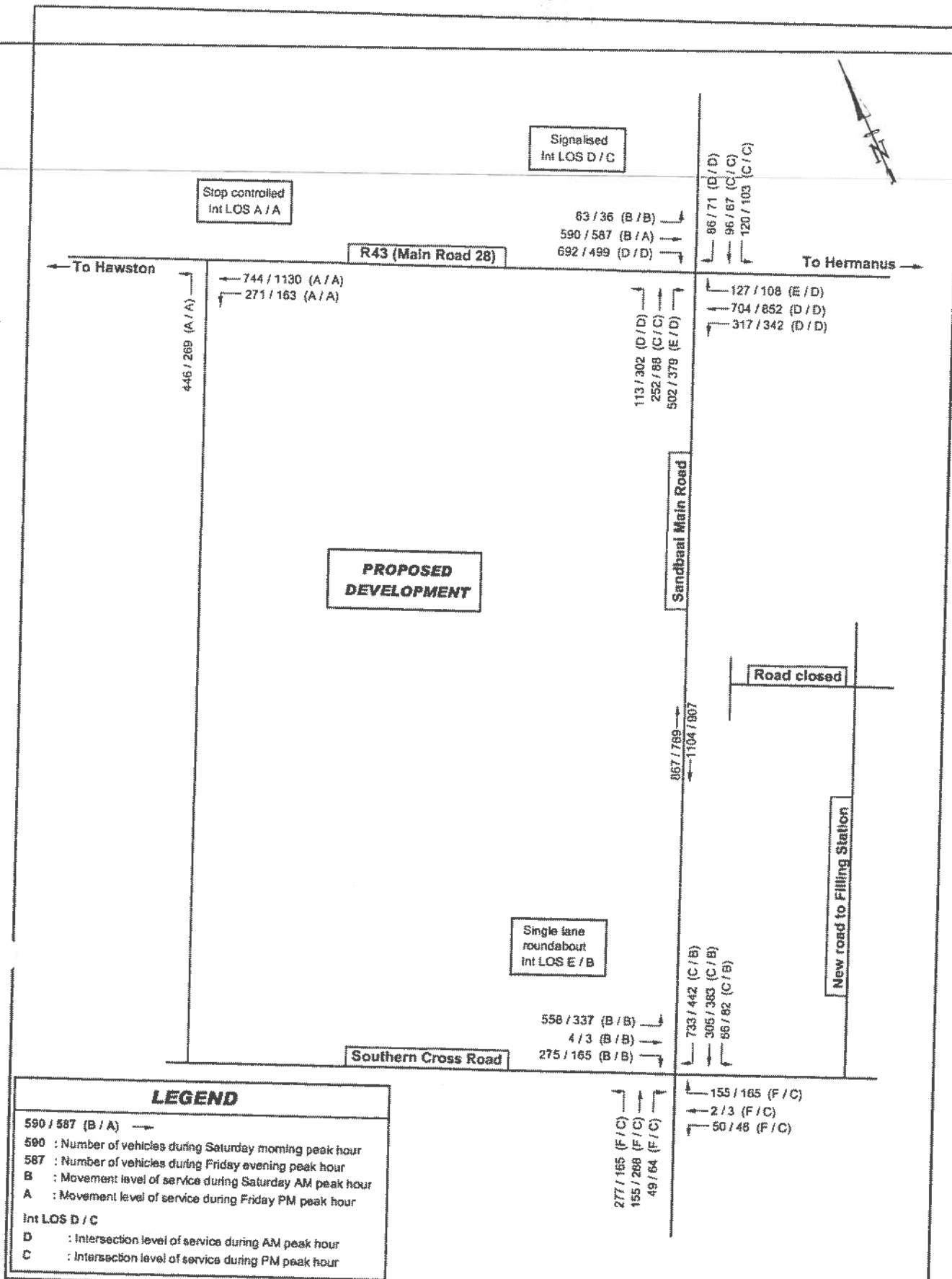
LEGEND	
4 3	→
4	: Number of vehicles during Saturday morning peak hour
3	: Number of vehicles during Friday afternoon peak hour

Project: FPO No. 131
 Stellenbosch 7589
 Title: Report
 Drawing No.:
 Date Issued: 7/5/21
 Tel: 021-880 0444
 Fax: 021-880 0250
 Email: info@ergroup.co.za


**DISTRIBUTION OF NEW TRIPS GENERATED BY
 PROPOSED ERF 1447 DEVELOPMENT
 (No Bergsig Street link to Onnusrivier)**

FIGURE 2





EXPECTED 2009 TRAFFIC VOLUMES AND LEVELS OF SERVICE WITH NEW ACCESS TO FILLING STATION (No Bergsig Street link to Onrusrivier)

FIGURE 4

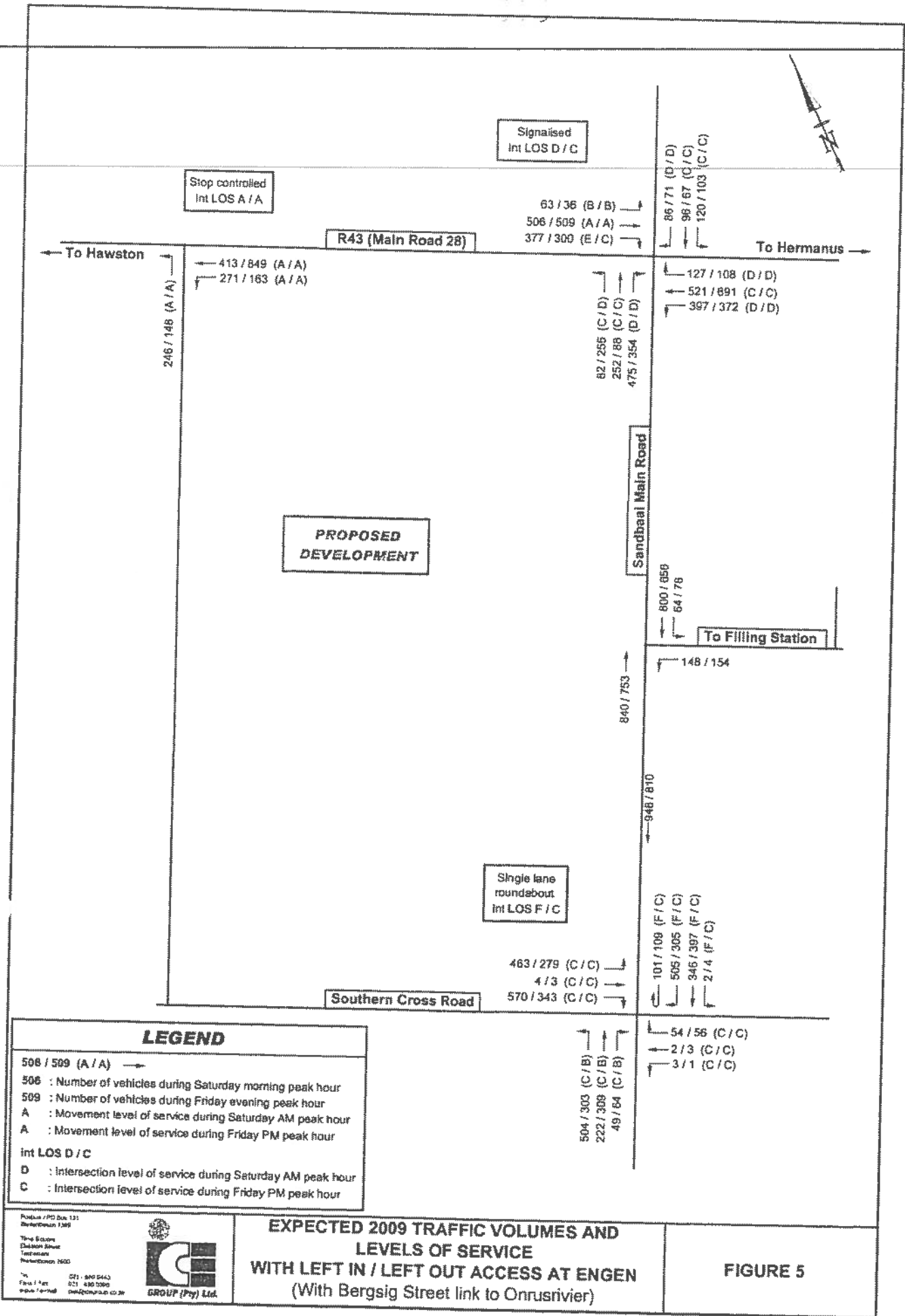
Project I/PQ No. 131
 Eindhoven 1305

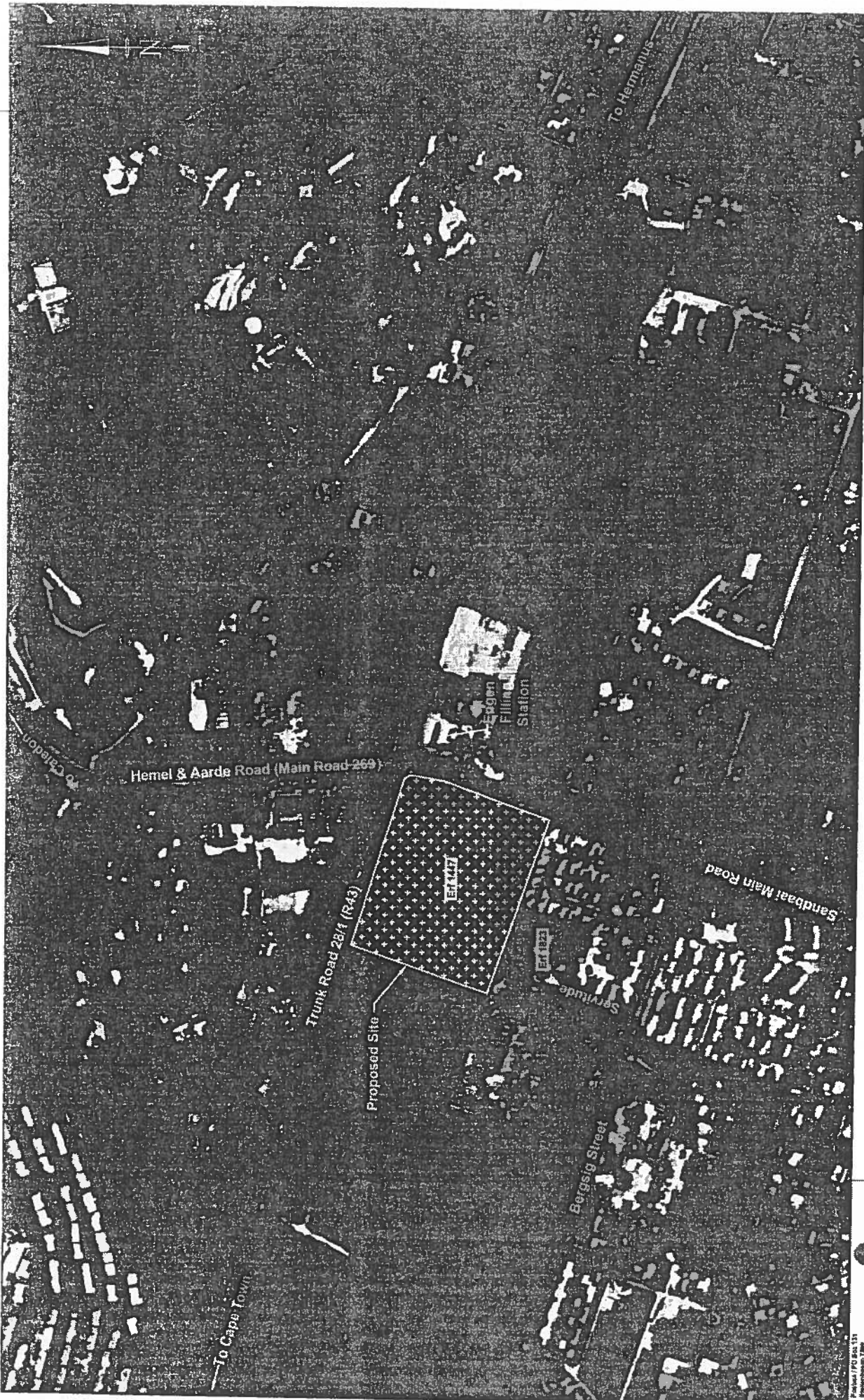
Traffic Engineers
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GROUP (Pty) Ltd.





LOCALITY PLAN

GROUPO (Pty) Ltd.
 100-101-102-103-104
 105-106-107-108-109-110
 111-112-113-114-115
 116-117-118-119-120
 121-122-123-124-125
 126-127-128-129-130
 131-132-133-134-135
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