Western Cape Government

Transport and Public Works

CONTRACT No. C1038: N7 Upgrading to Freeway Standards

POTSDAM INTERCHANGE TO MELKBOSSTRAND INTERCHANGE

Vissershok Weighbridge Proposal

March 2023

ISSUED TO:
EXECUTIVE MANAGER: PROVINCIAL ROADS AND
TRANSPORT MANAGEMENT BRANCH
DEPARTMENT OF TRANSPORT AND PUBLIC WORKS

WESTERN CAPE GOVERNMENT
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PREPARED BY:
ROADS AND TRANSPORTATION
HATCH AFRICA

2ND FLOOR, FALSE BAY BUILDING
TYGERBERG OFFICE PARK
163 UYS KRIGE DRIVE
PLATTEKLOOF
7500

HATCH

Western Cape Government

C1038: N7 UPGRADING TO FREEWAY STANDARDS

POTSDAM INTERCHANGE TO MELKBOSSTRAND INTERCHANGE

Vissershok Weighbridge Proposal

March 2023

Date	**Rev.**	**Status**	**Prepared By**	**Checked By**	**Approved By**	**Approved By**
HATCH						**Client**

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Table of Contents

1. Background 1

2. Proposed Relocation of Weighbridge 1

2.1 Location 1
2.2 Land Requirements 1
2.3 Environmental Process 2
2.4 Description of New Weighbridge Facility 2
2.4.1 Administration Block 2
2.4.2 Holding Area 3
2.4.3 Weighbridge 3
2.4.4 Weigh-in Motion Facilities 4
2.4.5 Weighbridge Facility Access Road Layout 4

3. Conclusions 4

Table of Figures

Figure 1: Existing Weighbridge and Administration Block 2
Figure 2: Existing Vissershok Weighbridge Holding Area 4

Annexures

Annexure A : New Weighbridge Concept Layout 5

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1. Background

The close proximity of the proposed Van Schoorsdrift Interchange to the existing Vissershok Weighbridge site presents a potentially unsafe substandard weaving section on the N7 between the interchange and the weighbridge. As a consequence, the existing weighbridge facility will not be able to operate safely with its current access arrangement.

In December 2021 Hatch submitted a short report on four options that could be considered for the weighbridge to eliminate the potentially unsafe arrangement. The report recommended that the weighbridge be retained in its current location but that the access to and from the weighbridge be shifted further north along the N7. After a more detailed investigation into the estimated construction costs, geometric layout of access roads and additional travel distance, it was concluded that it would be a more cost effective and safer option to relocate the weighbridge as opposed to retaining the facility in its current location with an unconventional access road layout.

This short report presents a concept for the relocation of the entire facility, including administration office, holding area, weighbridge and access road layout, for discussion and approval prior to Hatch Africa proceeding with the detailed design.

2. Proposed Relocation of Weighbridge

2.1 Location

It is proposed that the weighbridge facility be relocated some 600m north of the existing Vissershok Weighbridge facility.

2.2 Land Requirements

The facility will be located on City of Cape Town owned land (Vissershok Outspan 153), except for a relatively small “undevelopable” vacant area on Morningstar Farm 25/141, which is privately owned between the Eskom overhead powerlines and the N7. Mr A. Human of the City’s *Department Property Management* has been made aware of the proposal and has responded as follows in his email dated 30 March 2022:

> *The new access road will be running over a portion of the Visserhok Outspan Farm Erf 153, which is City owned. The proposed road is a Provincial mandate so you require portion of City land for the road. If this is correct, this can be done by acquisition on agreement between the two spheres of government – no need to expropriate*.
>
> *The disposal of City land to another sphere of government is being dealt with by our regional office. Pieter Stumpher (copied in) can assist in this regard.*
>
> *We must also consider the transfer of the Weighbridge site as I assume this is also a Provincial facility.*

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The expropriation/land transfer process will be initiated once the extent of land required for the new weighbridge facility has been determined.

2.3 Environmental Process

Mr Dirk Prinsloo: *Transport and Public Works: Environmental Officer: Compliance* has confirmed (in his email dated 18 August 2023) that a Basic Assessment Report will "definitely be required". He also prepared an Environmental Screening Report, which provides further guidance on potential specialists reports that would have to be incorporated into the Basic Assessment Report.

Sharples Environmental Services has been appointed as a sub-consultant to facilitate the Basic Impact Assessment process. The process is expected to take at least eight months before DEA&DP will be in a position to issue environmental authorisation.

2.4 Description of New Weighbridge Facility

2.4.1 Administration Block

At this stage, it is envisaged that provision would be made for an administration block similar to the existing one at the facility. However, it is proposed that provision be made for a separate Operations Room to be located on the N7 side of the scale to improve the communication between the driver of the vehicle and the staff in the Operations Room. An assessment will be carried out of the current facility in the detail design stage to ascertain whether any further improvements to the layout of the office block should be included in the new facility, such as the use of solar power.

Figure 1 : Existing Weighbridge and Administration Block

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2.4.2 Weighbridge Holding Area

Currently there is a gravelled holding area, which has a demarcated concrete block paved area, for the transfer and or re-packing of goods for vehicles that exceed the axle weight limitations. At this stage it is not envisaged to plan for anything larger or smaller unless instructed otherwise.

Figure 2 : Vissershok Weighbridge Holding Area

2.4.3 Weighbridge

According to Massamatic (Pty) Ltd, the service provider that was responsible for the installation and maintenance, the weighbridge has “had a lot of hammering and is in dire need of a good overhaul”. The current scale, which is 2,4m wide is not able to accommodate most abnormal loads. The existing scale was apparently installed in the early 1990’s. The current loadcells were installed in 2018 and there is no guarantee as to how long these loadcells will still last.

Based on the above, it is proposed that a totally new weighbridge with the latest technology and electronics be installed. It is further proposed that provision be made for a 3,6m wide scale to accommodate abnormal loads.

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2.4.4 Weigh-in Motion Facilities

It is proposed that weigh-in-motion facilities be installed in both the southbound and northbound directions. There is however some doubt as to how effective a weigh-in-motion facility, installed in the southbound direction south of the Melkbosstrand Interchange, will be. Freight traffic from the north travelling south along N7 will easily be able to avoid the weigh-in-motion by diverting to the West Coast Road.

2.4.5 Weighbridge Facility Access Road Layout

The proposed layout of the roadworks for the weighbridge facility is presented in Annexure A. The weigh-in-motion facility, in the southbound direction, has been shifted further north (compared to the previous scheme) to avoid having to provide an auxiliary lane between the weigh-in-motion facility and the N7-southbound off-ramp of the Van Schoorsdrift Interchange.

3. Conclusions and Recommendations

The following is concluded and recommended:

1. The City of Cape Town (Property Management) has been made is aware of the proposed relocation of the new weighbridge facility on to City land.
2. Sharples Environmental Services has been appointed as a sub-consultant to facilitate the Basic Impact Assessment process. The process is expected to take at least eight months before DEA&DP will be in a position to issue environmental authorisation.
3. A preferred road layout for the new weighbridge site has been prepared for approval. The proposal takes cognisance of discussions and comments made in previous meetings.

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Annexure A

New Weighbridge Concept

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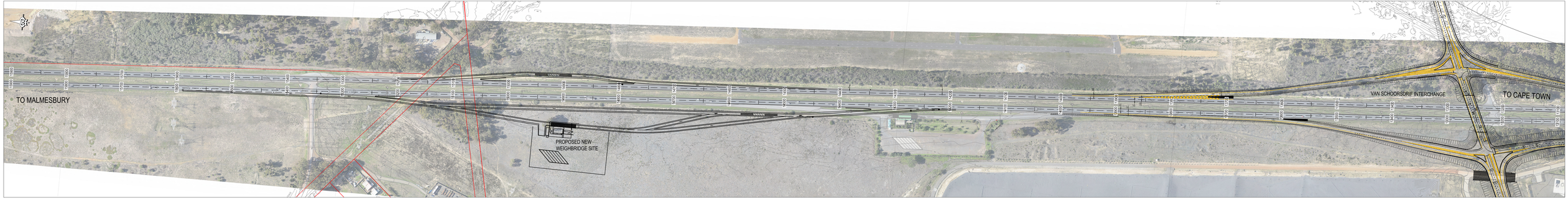

PROPOSED NEW WEIGHBRIDGE SITE SCALE 1:2000

Preferred Alternative 5 Layout:

TYPICAL CROSS SECTIONS
SCALE 1:100
RAMP B
RAMP C
CAPE TOWN
MALMESBURY
RIGID PAVEMENT
RIGID PAVEMENT
RIGID PAVEMENT
OPTION 7.3
SINGLE SCALE
SCALE 1:1000

Demolition Plan for the existing Weighbridge:

LAYOUT

SCALE 1:500

POINT	Y CO-ORDINATE	X CO-ORDINATE
A	42 027.602	3 737 084.839

NO.	DATE	ADDITIONS, AMENDMENTS AND REVISIONS	PROVINCIAL CHIEF ENG.	CONSULT. ENG.	DESIGNED BY:	DETAILED BY:
VA	2025-07-15	FOR ENVIRONMENTAL APPROVAL			D. MALAN	B. OLIVIER
					CHECKED BY:	CHECKED BY:
					C. MANCHIP	D. MALAN

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CONSULTANT'S APPROVAL

SIGN: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

NAME: _ _ _DAWIE MALAN _ _ _ _

ECSA Pr No. _ _ _940057_ _ _ _ _

DATE: _ _ _JULY 2025_ _ _ _ _

Western Cape Government
FOR YOU
Infrastructure

ACCEPTANCE

THIS APPROVAL IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OF ANY KIND FROM WHATSOEVER OR HOWEVER ARISING

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

PROVINCIAL ROADS ENGINEER

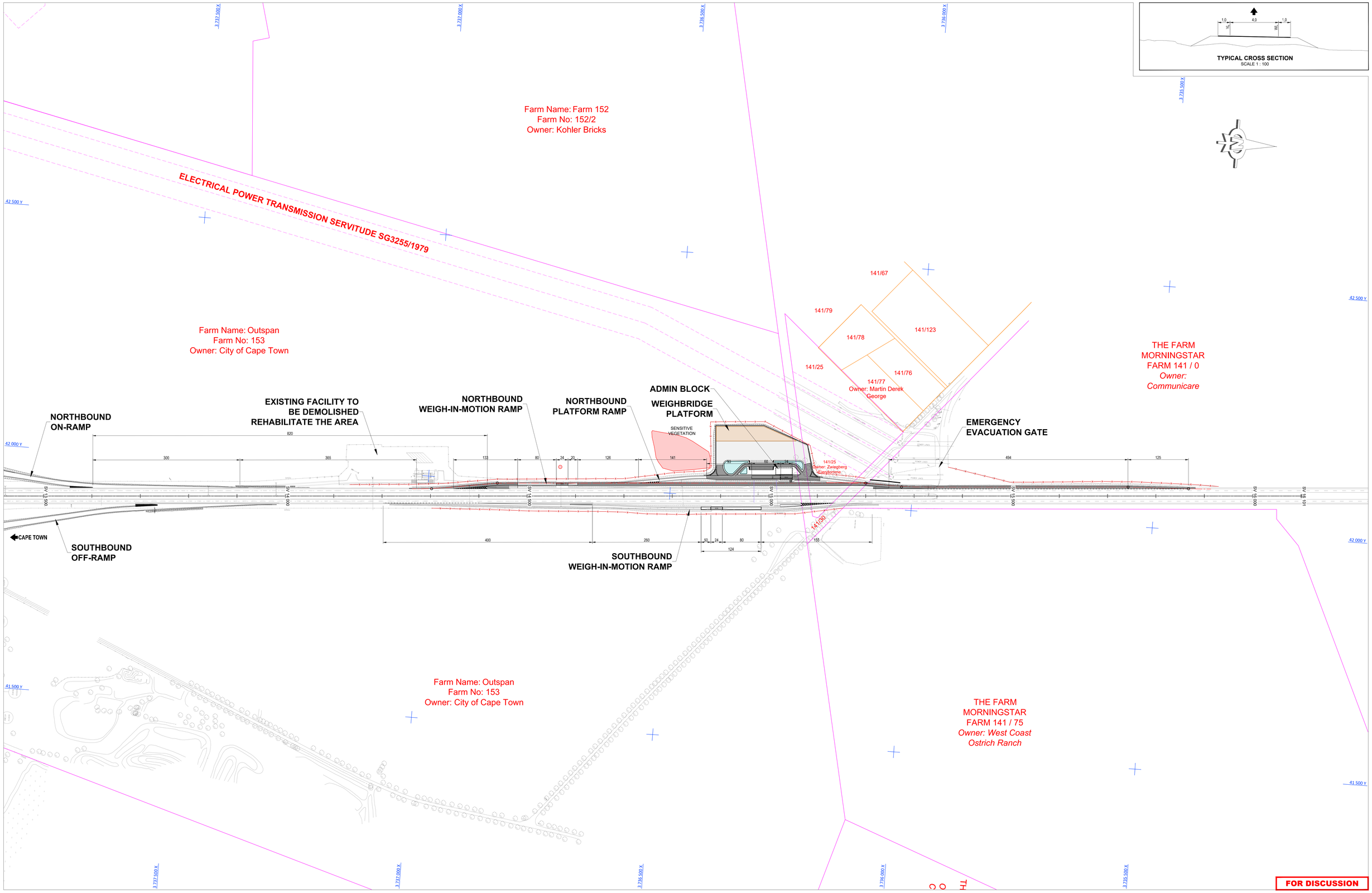
DATE: _ _ _ _ _ _ _ _ _ _ _ _

C1038.02 SAFETY IMPROVEMENT N7 POTSDAM - MELKBOS VAN SCHOORSDRIF I/C

DEMOLITION OF EXISTING WEIGHBRIDGE

P.R.E's FILE NO.	SCALE AS SHOWN	ORIGINAL PAPER SIZE
TPW 16/6/4/1/1-TR01101 - C1038.02	SHEETS OF	A0
CONTRACT NO. C1038.02	WCG STRUCTURE PLAN	
CONSULTANTS DWG NO.	WCG INDEX NO. GD55/447	VER VA

SCALE 1 : 500



NO.	DATE	ADDITIONS, AMENDMENTS AND REVISIONS	PROVINCIAL CHIEF ENG.	CONSULT. ENG.	DESIGNED BY:	DETAILED BY:
					J. SADIE	J. SADIE
					CHECKED BY:	CHECKED BY:
					C. MANCHIP	C. MANCHIP

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SIGN: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

NAME: _ _ CHRIS MANCHIP _ _ _ _

ECSA Pr No. _ _ 9770111 _ _ _ _

DATE: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

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PROVINCIAL ROADS ENGINEER

DATE: _ _ _ _ _ _ _ _ _ _ _

C1038.02 SAFETY IMPROVEMENT N7 POTSDAM - MELKBOS VAN SCHOORSDRIF I/C

WEIGHBRIDGE RELOCATION LAYOUT PLAN

P.R.E's FILE NO. TPW 16/6/4/1/1-TR01101-C1038.02	SCALE 1 : 2 500	SHEETS 1 OF 1	ORIGINAL PAPER SIZE A0
CONTRACT NO. C1038.02	WCG STRUCTURE PLAN		
CONSULTANTS DWG NO.	WCG INDEX NO.	VER	

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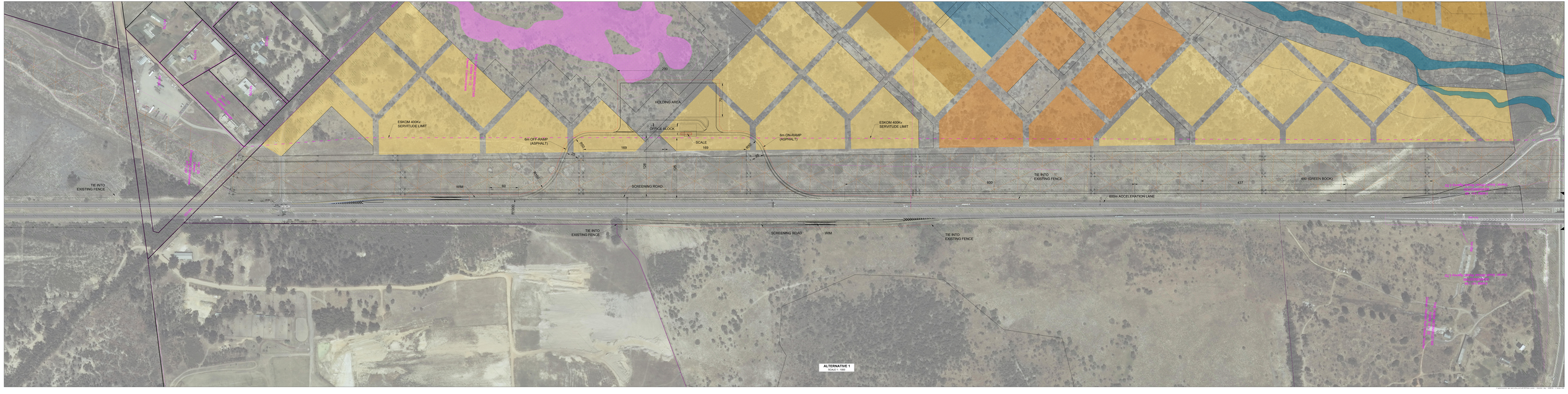
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HOLDING AREA
72
OFFICE BLOCK
SCALE
169
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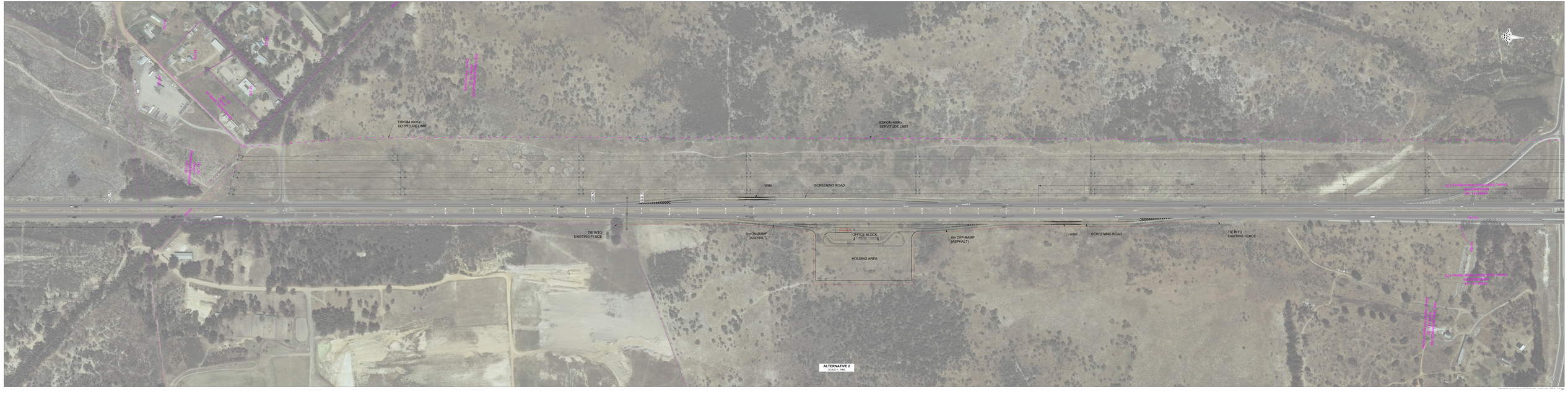
SERVITUDE LIMIT
6m OFF-RAMP
(ASPHALT)
6m ON-RAMP
(ASPHALT)
ESKOM 400Kv
SERVITUDE LIMIT
169
R500
R500
R100
R100
TIE INTO
EXISTING FENCE
WIM
60
SCREENING ROAD
600
TIE INTO
EXISTING FENCE
437
480 (GREEN BOOK)
600m ACCELERATION LANE
TIE INTO
EXISTING FENCE
SCREENING ROAD
WIM
TIE INTO
EXISTING FENCE
ALTERNATIVE 1
SCALE 1 : 1000

Alternative 7:


ESKOM 400KV
SERVITUDE LIMIT
ESKOM 400KV
SERVITUDE LIMIT
WIM
SCREENING ROAD
TIE INTO
EXISTING FENCE
6m ON-RAMP
(ASPHALT)
OFFICE BLOCK
HOLDING AREA
6m OFF-RAMP
(ASPHALT)
WIM
SCREENING ROAD
TIE INTO
EXISTING FENCE
ALTERNATIVE 2
SCALE 1: 1000