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**WEMBEZI JUNXION SHOPPING MALL**

**Civil Engineering Services Report**

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DLM Africa Trading cc

**WEMBEZI JUNXION SHOPPING MALL**

**Civil Engineering Services Report**

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Author:	Mike Hemingway
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Checked by:	
Approved:	Mike Hemingway
Signature:	
For:	HEMINGWAY and ASSOCIATES cc

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**WEMBEZI JUNXION SHOPPING MALL**

**Civil Engineering Services Report**

EXECUTIVE SUMMARY

This Civil Engineering Services Report indicates that there are adequate bulk services from Uthukela District Municipality to support this proposed development.

The development will require new road access from Main Road MR179.

All services to be designed in accordance with the Guidelines for Human Settlement, Planning and Design "Red Book" as issued by the Department of Housing 2005 and drawings too be approved by the relevant Municipality.

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**WEMBEZI JUNXION SHOPPING MALL**  
**Civil Engineering Services Report**

<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>1 INTRODUCTION .....</b>	<b>5</b>
<b>2 THE SITE .....</b>	<b>5</b>
<b>3 BULK WATER SUPPLY .....</b>	<b>5</b>
<b>4 INTERNAL WATER SUPPLY .....</b>	<b>5</b>
4.1 Water Reticulation	5
4.2 Estimated Water Demand	6
<b>5 SANITATION .....</b>	<b>6</b>
5.1 Bulk Sewers	6
5.2 Internal Sewers	6
<b>6 ROADS AND STORMWATER DRAINAGE .....</b>	<b>6</b>
6.1 Main Road Access	6
6.2 Stormwater Drainage	6
<b>7 SOLID WASTE.....</b>	<b>7</b>
<b>8 CONCLUSIONS .....</b>	<b>7</b>
<b>APPENDIX A.....</b>	<b>8</b>
Locality Plan	8
<b>APPENDIX B.....</b>	<b>10</b>
Site Plan	10
<b>APPENDIX C.....</b>	<b>12</b>
UDM Water Layout	12
<b>APPENDIX D.....</b>	<b>14</b>
UDM Correspondence	14
<b>APPENDIX E .....</b>	<b>16</b>
Company C V	16

## WEMBEZI JUNXION SHOPPING MALL

### Civil Engineering Services Report

#### 1 Introduction

Hemingway and Associates were appointed in correspondence dated 11 March 2021 by the late Mr Peter Jewell following the issue of a proforma quotation dated 25 January 2021 to prepare the Civil Engineering Services Report.

The proposed development consists of 12 113m<sup>2</sup> shopping mall, 833 parking bays, Service Station and store, and Taxi Rank with the main access from Main Road MR179 as detailed on the attached site plan in Appendix B.

#### 2 The Site

The site is known as Portion 51 (of 7) of the Farm Klipplaat-Drift No 10091 situated on Main Road MR 29 at the north-east entrance to Wembezi as shown on the attached locality map in Appendix A.

The is within the Inkosi Langalibalele Local and Uthukela District Municipalities.

#### 3 Bulk Water Supply

The bulk water supply to Wembezi is from the George Cross Water Treatment Works situated on Main Road MR29 (Ntabamhlope Road) on the Estcourt boundary being a 350mm diameter pumping main adjacent to the site as detailed in Appendix C.

The existing farm has a connection to this pumping main with valve and meter on the boundary.

Although the existing works is currently operating at total capacity, upgrading of the works is in progress. Furthermore, UDM are implementing Water Conservation and Demand Management Project in Wembezi to reduce loses and consumption.

We have been verbally advised by the Area Manager, Mr Sakhile Dube, that UDM have capacity to supply the proposed development. We await this confirmation in writing.

#### 4 Internal Water Supply

##### 4.1 Water Reticulation

A gravity reticulation will be constructed from the metered bulk supply providing the required supply to the whole development.

## 4.2 Estimated Water Demand

The estimated water demand is based on the "Red Book", table 9.14 being: -

4.2.1 Shops and Offices at 400 l/day per 100m<sup>2</sup> of gross floor area  $12113\text{m}^2/100\text{m}^2 \times 400 \text{ l/d} = 48\,452 \text{ l/d}$

4.2.2 Service Station and Taxi Rank  $600\text{m}^2 / 100\text{m}^2 \times 400 \text{ l/d} = 2\,400 \text{ l/d}$

4.2.3 Losses =10%

4.2.4 Summer Peak =1.5

4.2.5 Water Demand equates to  $(48.452 + 2.4) \times 10\% \times 1.5 = 83.9 \text{ kl/day}$

## 5 Sanitation

### 5.1 Bulk Sewers

The sewerage treatment works in Wembezi is situated approximately 2 km west of the proposed development and we have been advised by the Area Engineer, Mr Sakhile Dube, that the works has adequate capacity for the proposed development in his correspondence dated 14 June 2021 in Appendix D.

### 5.2 Internal Sewers

The internal sewer reticulation will be water-borne gravity sewers outfalling into the bulk municipal sewer.

## 6 Roads and Stormwater Drainage

### 6.1 Main Road Access

The main road access to the development is from Main Road MR179, past the service station and into the mall parking area as detailed on the attached site plan in Appendix B.

A new access from MR179 will be constructed to the required DOT standards.

Delivery access will be via the northern service road which will include for tenant and staff parking.

All roads and parking areas will be paved.

### 6.2 Stormwater Drainage

In designing the stormwater drainage system both the minor and major storm events will be investigated.

The major system to be designed based on a pre-development runoff of 1 in 50-year storm event and a post-development of 1 in 10-year storm event which will be achieved by the retention of the excess storm peak event.

The minor system incorporates appropriately designed and sized catch pits with underground pipe network.

## **7 Solid Waste**

Solid waste removal and disposal will be provided by the Local Municipality.

## **8 Conclusions**

The existing bulk services of water and sanitation are adequate for the proposed development as confirmed by the Area Engineer of Uthukela District Municipality.

All services to be designed in accordance with the "Red Book" Guidelines for Human Settlement, Planning and Design issued by Department of Housing 2005 and drawings to be approved by the relevant Municipality prior to construction.



**Appendix A**  
**Locality Plan**

**Portion 51 (of 7)  
of the Farm Klipplaai  
Drift No. 1009**

**LOCALITY MAP**

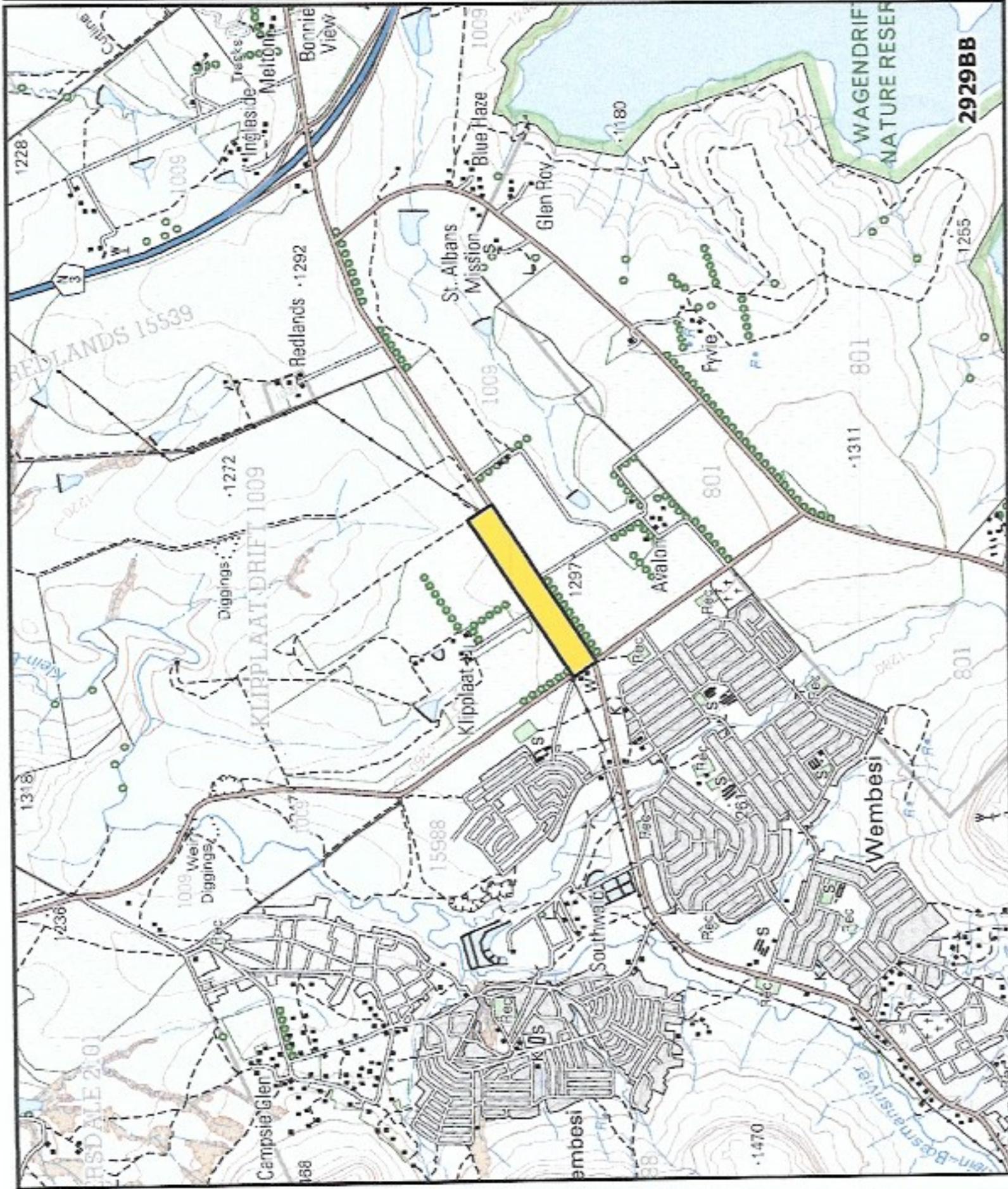


NOTE: Boundaries and areas are approximates  
and are subject to final survey.

Map No. : Locality/1/2020

Scale: 1 : 30 000 (A4)

Peter Jewell Consulting  
PO Box 278  
Hilton  
3245  
Tel: 033 343 3821





**Appendix B**  
**Site Plan**



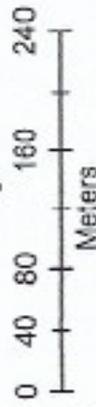


**Appendix C**  
**UDM Water Layout**

# Wembezi



Notes



(1:5 Scale when Printed at A4)

Produced By:

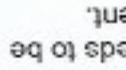
GIS Office  
PO Box 116  
Ladysmith  
3370

Tel: 036 - 638 5100 Fax: 036 - 635 5501

Date : 12 January 2020



File Path:  
c:\gis\mun\KZ237\GeorgeCrossWTW



Acting Area Engineer:



**Appendix D**  
**UDM Correspondence**

21006 Email 14 06 2021

Greetings Mike

Currently we do not have the capacity to supply the volumes of water that you may need but we are in a process of upgrading the George Cross WTW that supplies Wembezi. Furthermore, we are implementing Water Conservation and Demand Management project in Wembezi which will assist us in saving millions of water that we are losing due to leaks.

With regards to Sanitation, we do have the capacity.

**From:** [mike.haa@bundunet.com](mailto:mike.haa@bundunet.com) <[mike.haa@bundunet.com](mailto:mike.haa@bundunet.com)>

**Sent:** Tuesday, 08 June 2021 11:58

**To:** SakhileDube <[SDube2@uthukela.gov.za](mailto:SDube2@uthukela.gov.za)>

**Subject:** Wembezi Shopping Centre

Hi Sakhile

Further to our previous email dated 02 April 2021, we have been requested by Siphon Ndlovu to resend our application for bulk water and sanitation for the above proposed development.

Regards

Mike Hemingway



**Appendix E**  
**Company C V**

Vertical line

## DECLARATION OF INTEREST BY SPECIALIST



## KWAZULU-NATAL PROVINCE

ECONOMIC DEVELOPMENT, TOURISM  
AND ENVIRONMENTAL AFFAIRS  
REPUBLIC OF SOUTH AFRICA

	(For official use only)
Provincial Reference Number:	
NEAS Reference Number:	KZN / EIA /
Waste Management Licence Number (if applicable):Date Received by Department:	

## DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

Submitted in terms of section 24(2) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) or for a waste management licence in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

## KINDLY NOTE:

1. This form is current as of May 2021. It is the responsibility of the Applicant / Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the form have been released by the Department.

## PROJECT TITLE

Wembezi JunXion Commercial Development

## DISTRICT MUNICIPALITY:

uThukela District Municipality

## 1. SPECIALIST INFORMATION

Specialist name:	Hemingway and Associates		
Contact person:	Mr Mike Hemingway		
Postal address:	P. O. Box 91, Mooi River		
Postal code:	3300	Cell:	082 801
Telephone:		Fax:	086 563 9121
E-mail:	Mike.haa@bundunet.com		
Professional affiliation(s) (if any)	Pr. Eng.790404, B.Sc.(Hons), MSA/ICE, MICE		

Department of Economic Development, Tourism & Environmental Affairs, KwaZulu-Natal	Details of the Specialist and Declaration of Interest	May 2021 V1
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DECLARATION OF INTEREST BY SPECIALIST

Project Consultant / EAP:	Metamorphosis Environmental Consultants		
Contact person:	Ms Vicki King		
Postal address:	P. O. Box 2116, Link Hills		
Postal code:	3625	Cell:	076 420 1441
Telephone:	031 – 756 7554	Fax:	
E-mail:	Vicki@metamorphosisdbn.co.za		
Professional affiliation(s) (if any)	IAIAsa, Reg EAP (EASPAPA), IWM, ELA		

2. DECLARATION BY THE SPECIALIST

I, MICHAEL STEWART HEMINGWAY

General declaration:

- I act as the independent specialist in this application;
- do not have and will not have any vested interest (either business, financial, personal or other) in the undertaking of the proposed activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I am aware that a person is guilty of an offence in terms of Regulation 48 (1) of the EIA Regulations, 2014, if that person provides incorrect or misleading information. A person who is convicted of an offence in terms of sub-regulation 48(1) (a)-(e) is liable to the penalties as contemplated in section 49B(1) of the National Environmental Management Act, 1998 (Act 107 of 1998).

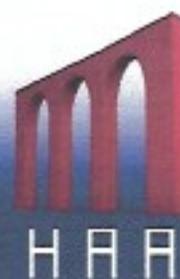
  
Signature of the specialist:

Mike Hemingway and Associates

Name of company:

08/02/2022  
Date:

Department of Economic Development, Tourism & Environmental Affairs, KwaZulu-Natal	Details of the Specialist and Declaration of Interest	May 2021 V1
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## Consulting Engineers

☎ 082 801 5179  
☎ (086) 553-9121  
✉ mike.haa@bundunet.com

Fuschia Grove Farm  
No 15, D183 Mount West  
P.O. Box 91 Mooi River, 3300  
KwaZulu-Natal South Africa

## CURRICULUM VITAE

**Michael Stewart Hemingway**

<b>Present Appointment</b>	Member : HEMINGWAY and ASSOCIATES cc
<b>Date of Birth</b>	16 July 1950
<b>ID Number</b>	5007165048182
<b>Nationality</b>	British Citizenship
<b>Education</b>	Leeds Building College: O.N.D. Building 1969 Sunderland Polytechnic: B.Sc (Hons) Civil Engineering 1974
<b>Professional Qualifications</b>	Pr.Eng., B.Sc (Eng) (Hons), C.Eng., MSAICE, MICE, MEASA. Pr.Eng. 790404 (ECSA) NHBRC Reg. No. 600169
<b>Professional Memberships</b>	S.A.Institution of Civil Engineers; Member (MSAICE) March 1980 Institution of Civil Engineers: Member (MICE) December 1979 Engineers Association of S.A.: Member (MEASA) March 1983 Council of Engineering Institutions: Chartered Engineer (C.Eng) December 1979
<b>Field of Specialisation</b>	Civil and Structural Engineering Design
<b>Languages</b>	English

**Synopsis** Michael is a Professional Engineer with over 40 years experience in Civil and Structural Engineering Field.

Michael was a Senior Partner with Duncan Hemingway and Partners in Ladysmith since 1991. In 2005 they integrated with SIVEST operating as SIVEST Hemingway and Michael as the Managing Director. In May 2008 SIVEST Hemingway was fully integrated into SIVEST, followed by his appointment of Divisional Director of SIVEST Civil Engineering Division, and Director to the SIVEST Board of Directors.

In April 2012, Michael retired from the SIVEST Group to set up HEMINGWAY and ASSOCIATES cc being the re-naming of the original company of Duncan Hemingway & Partners.

Michael is responsible for the design and supervision of civil and structural engineering projects and the management of the new consulting engineer's office with a compliment of seven technical and administration personnel at the farm at Mount West in the KZN Midlands region.

## Professional History

May 2012 – Present

### **HEMINGWAY and ASSOCIATES cc : Member**

Responsible for the design and supervision of civil and structural engineering projects and the day to day management of a small consulting practice with a staff of seven.

2008– 2012

### **SiVEST SA (Pty) Ltd: Director**

#### **SiVEST Civil Engineering Division: Divisional Director Ladysmith Branch**

Responsible for the Management, design and supervision of civil and structural engineering projects which have included numerous township services projects, water and sewer schemes, pollution control works and various industrial and private buildings.

2005 – 2008

### **SiVEST HEMINGWAY: Managing Director**

Responsible for the Management, design and supervision of civil and structural engineering projects which have included numerous township services projects, water and sewer schemes, pollution control works and various industrial and private buildings.

1991 – 2005

### **Duncan Hemingway & Partners, Ladysmith: Senior Partner**

Responsible for the Management, design and supervision of civil and structural engineering projects which have included numerous township services projects, water and sewer schemes, pollution control works and various industrial and private buildings.

1979 – 1991

### **Brian G.A. Schaller & Partners, Ladysmith : Partner**

Responsible for the Management, design and supervision of civil and structural engineering projects which have included numerous township services projects, water and sewer schemes, pollution control works and various industrial and private buildings.

Following the retirement of Brian Schaller in 1988 the name of the partnership was changed to Duncan Hemingway & Partners.

1975 – 1979

### **ISCOR, Vanderbijlpark: Assistant Superintendent Planning.**

Responsible for providing project planning support functions in all aspects of civil engineering for major plant extensions and surveying, testing and reporting on specialist investigations on remedial works.

1974 – 1975

### **Proctor & Gamble Ltd: Design Engineer**

Design Engineer on modernisation of industrial buildings.

1973 – 1974

### **G. Wimpey & Co. Ltd, C.E. Contractors: Site Engineer**

Site Engineer on residential township.

1969 - 1972

### **T.P. O'Sullivan & Partners, England : Trainee**

Training period during degree course, spending time in the bridge, survey and structures departments.



**Hemingway & Associates cc**  
Fuschia Grove Farm  
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