

MOSSEL BAY: AFRO FISHING PROPOSED AFRO FISHING EXPANSION PROJECT: QUAY 1 AND QUAY 2



CIVIL SERVICES REPORT

November 2019 – Revision 01

Client:

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Consulting Engineers:

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1. INTRODUCTION

V3 Consulting Engineers have been appointed by Afro Fishing (Pty)Ltd. to provide a civil services report in support of the proposed development.

2. PROPOSED LAYOUT

The proposed Location- and Site Development Plans are attached hereunder as Figures 01 and 02.



Figure 01: Locality Plan (Courtesy: Urban Engineering)



Figure 02: Proposed Site Development Plan (Courtesy: Urban Engineering)

The proposed expansion development is on the site of the old I&J Fish facility.

3. INFORMATION REQUESTED

3.1 Design and Construction Standards

All the civil services and pertaining infrastructure will be designed in accordance with the following, namely:

- 3.1.1) The “Guidelines for Human Settlements, Planning and Design” as compiled under patronage of the Department of Housing by CSIR Building & Construction Technology (also known as the “Red Book”). The relevant code of standards (i.e. SABS 1200, etc.) will be applicable to material and construction standards.

Any specific requirements set by Afro Fishing i.e. fresh water demand / requirements.



In addition, the Contractor will be required to adhere to any specific requirements or standards identified in the EIA.

3.2 Water (Refer Annexure A)

The water usage for domestic use can be categorized under different headings:

3.2.1 Bulk Water Supply

Potable water for process- and domestic use will be required and will be provided by Mossel Bay Municipality from their water treatment works in Klein Brakriver.

The existing bulk/external water network is shown in Figure 03 hereunder.



Figure 03: Bulk water network to the Port and CBD areas.

Based on the requirements provided by Afro Fishing, it is estimated that the fresh water demand that will be required for process- and domestic usage are as follows:

- i) During production:
 - a) Plant - 290 kℓ/ day
 - b) Cleaning purposes one to three times per week - 50 kℓ per cleaning
 - c) Max. daily demand - 340 kℓ/day
 - 3,94 ℓ/s

Potable water is supplied to the existing Afro Fishing facility and was supplied to the old I&J facilities via existing connections to the Municipal network in Bland Street. (See Annexure A).

No upgrade of these connections are envisaged.

The Mossel Bay Municipality confirmed that enough water is available in their existing water system. Official letter to follow.

3.2.2 Internal Water Supply

The internal water distribution will be through the existing network supplying existing and proposed Afro Fishing (old I&J)

Where necessary, the existing fire fighting systems will be reinforced by providing booster facilities for the Fire Services.

3.3) Sewerage (Refer Annexure A)

3.3.1 Bulk sewage removal

Bulk sewage will be removed via the existing gravity sewer line flowing to the Beach Road Municipal bulk sewage pumpstation.

No upgrade required.

Mossel Bay Municipality confirmed that the necessary capacity is available at their Hartenbos Regional Treatment Works and the sewage network to handle the sewage inflow from this development. Official letter to follow.

The existing bulk/external sewage network is shown in Figure 04 hereunder.



Figure 04: Bulk sewage network for Port and CBD areas

3.3.2 Internal Sewage Removal

An internal gravity sewage system will collect the sewage from the development and deliver via existing on-site gravity lines sewage pumpstations and rising mains to the existing gravity line.

If, during final design, upgrades to the existing pumps / rising mains are required, higher capacity pumps and/or larger rising mains will be installed.

Pumps to be installed in existing pumps pits.

The hydraulic loading of the sewage system is estimated at max. 40 kℓ/day.

3.4 Roads and Stormwater

3.4.1 Access Roads

A TIA was done by Urban Engineering (Pty)Ltd. and no road upgrades are required.

Attached as Annexure B is the summary and conclusions of the TIA courtesy Urban Engineering.

3.4.2 Stormwater

- (i) There is an existing underground stormwater pipe system as indicated on Dwg. No. 10409000-001 in Annexure A.
- (ii) All minor stormwater run-off will flow through this underground system while, with major storms, run-off will also flow on the surface.
- (iii) All stormwater flows to the sea.
- (iv) No upgrade required.

3.5 Refuse Removal

Refuse removal will be handled by Mossel Bay Municipality as per standard service.



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D.V. Wessels Pr.Eng
V3 Consulting Engineers (Pty)Ltd.
31 October 2019

ANNEXURE A

- **Google photo with survey contours and existing services overlay.**
- **Existing civil services dwg no. 10409000-001**

SITE PLAN

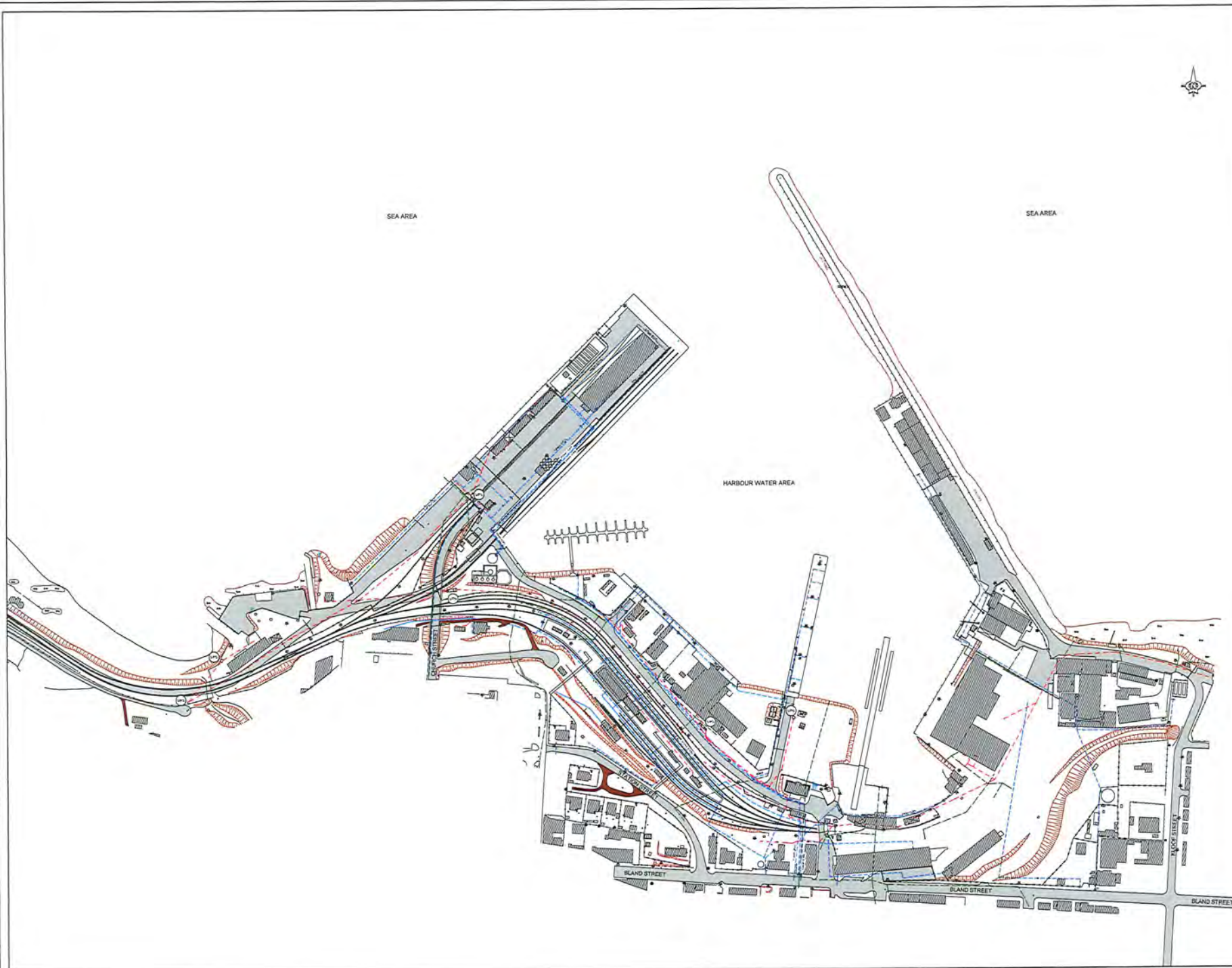
PORTION OF ERF 12459 MOSSEL BAY
FOR AFRO FISHING

NOTES

1. Co-ordinate system : WGS84
2. Elevation datum : Mean sea Level
3. Contour interval : 0,5 meters
4. Service Covers shown as surveyed, lines from engineer's plans.



SCALE 1:400 @ A1	Tommie Macgill Landmeter
Plan No. TV0774 SITEPLAN.DWG	Project No.
Date: 9 May 2019	Site No.



- LEGEND:
- EXISTING WATER LINE
 - EXISTING FOOTPATH
 - EXISTING WATERWAY
 - EXISTING PROPOSED WATER LINE
 - EXISTING BOUNDARY
 - EXISTING UNDERPASS
 - EXISTING OVERPASS



PRELIMINARY

REVISIONS	
NO.	DATE



PROJECT:
NPA/MSM/PM/007/2018:
DEVELOPMENT OF CERTAIN PORTIONS
OF LAND IN THE PORT OF MOSSEL BAY

EXISTING CIVIL SERVICES

DRAWING NO:
10409000-001

DESIGNED BY	CHECKED BY
DRAWN BY	SCALE: 1:1000
APPROVED BY	DATE: 2018-11-14
FILE NO:	

ANNEXURE B

SUMMARY AND CONCLUSION FROM TIA DONE BY URBAN ENGINEERING

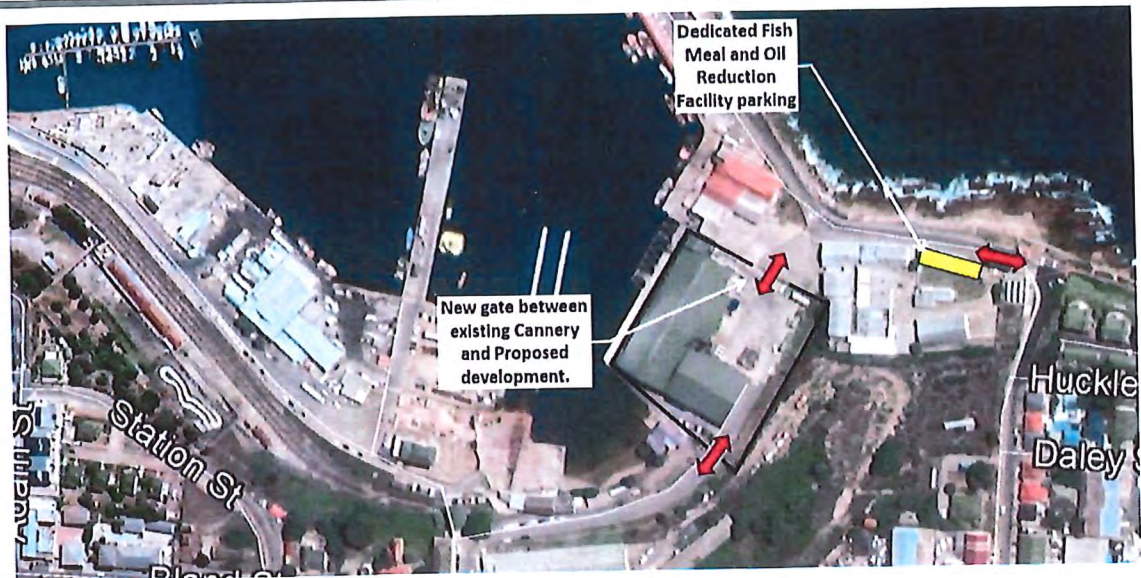


Figure 6-1 - New Access Gate Between Existing Cannery and New Proposed Facility

7 SUMMARY

Mossel Bay Harbour is a very important and strategic transportation and commercial node within the Southern Cape. In terms of freight volumes, it is currently one of the smallest harbours within the Transnet National Ports Authority's (TNPA) network. The harbour is currently operating at approximately 10% of its capacity in terms of Break Bulk and 20% of capacity in terms of Liquid Bulk. It is expected that the recent finding of oil condensate within the Southern Cape offshore region, will expedite the future long-term planning for Mossel Bay Harbour. Long Terms planning for the harbour includes expanding the harbour's import/export capabilities.

Mossel Bay Central Business District is the economic hub of Mossel Bay. It is important that traffic within the Central Business District is managed and optimized to limit transportation related delays.

The existing Afro Fishing Cannery is the ideal harbour business from a transportation impact point of view. Raw materials (fish) are delivered to the facility directly from fishing ships and trawlers, minimizing the impact on the surrounding road network.

The proposed Fish Meal and Oil Reduction facility is also expected to have a very low impact on the surrounding road network, since the proposed facility is expected to generate very low volumes of vehicular and truck traffic. The expected trip generation rate of the facility is very low, leading to an increase in job opportunities without negatively affecting the road network.

Both the existing Cannery and the new proposed facility will be closed during the summer holiday season, when the influx of visitors to the Mossel bay region, leads to increased pressure on the road network.

8 CONCLUSION

The proposed development of the Fish Meal and Oil Reduction facility is expected to have a very small impact on the surrounding road network and hence the development could be allowed to continue from a transportation point of view.