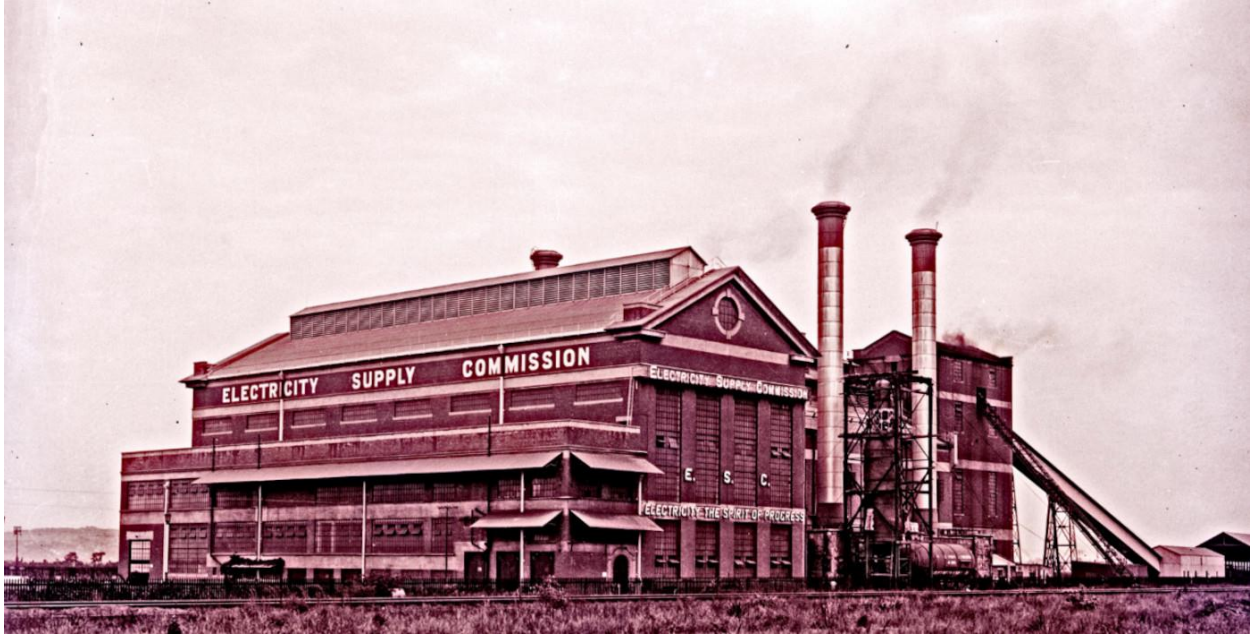


CONGELLA POWER STATION ("THE OLD SMOKEY")



Picture 1

110 SOUTH COAST ROAD ON:

REMAINDER OF PORTION 163 OF ERF 10004, DURBAN.

REMAINDER OF ERF 10005, DURBAN.

REMAINDER OF PORTION 1 OF ERF 10003, DURBAN.

REMAINDER OF PORTION 150 OF ERF 10004, DURBAN.

REMAINDER OF PORTION 2 OF ERF 10014, DURBAN.

Report by: G. S Bester (EPA)

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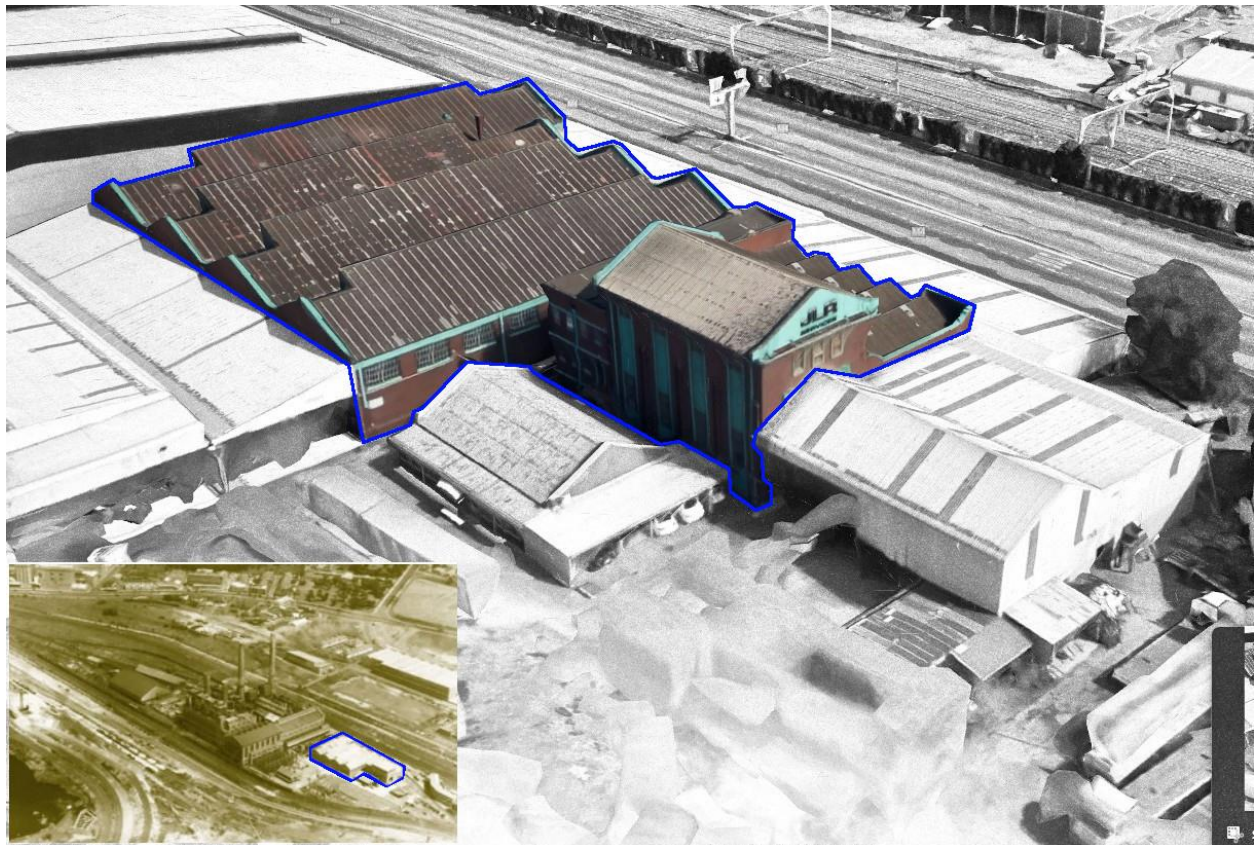
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Introduction

110 South Coast Road was purchased in 2010 and was transferred from Interactive Trading 659 (Pty) Ltd to **The Truzen 71 Trust** (Title Deed T9872/2010).

The property has been developed over the years and is mainly being used for warehousing on both the new and old buildings. A few of the buildings were derelict at the time of purchase and has been so to this day.

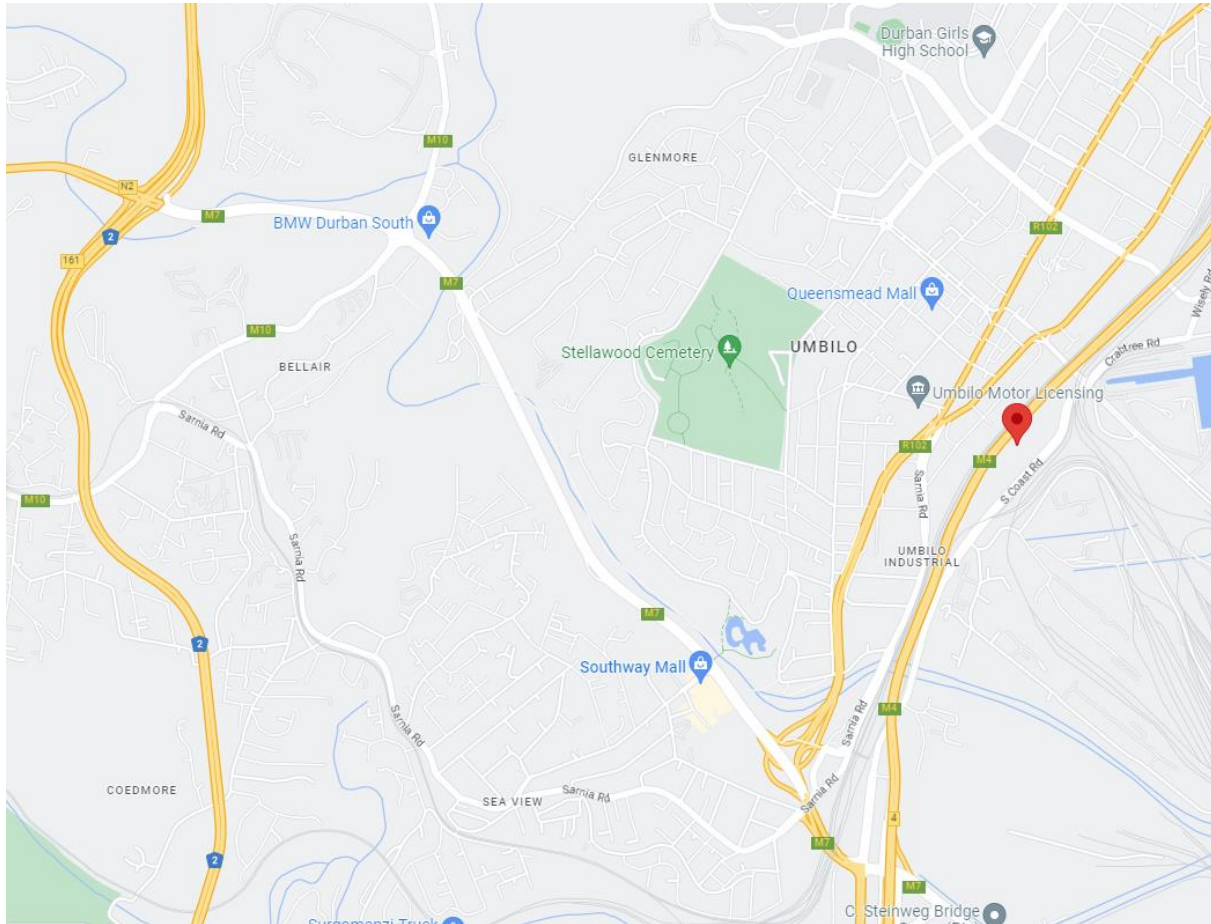
After the floods of 2022, some of the buildings has been severely damaged beyond repair and it is the owner's intention to apply for a demolition permit to tear down the derelict and damaged buildings. The owner is aware of the Historical context of the property and wishes to maintain the larger existing buildings thereby preserving the History enveloped within the site.



Urban Settings and Adjoining Properties

Site Location:

The site is located within an Industrial Zone to the East of Durban City and a few hundred meters away from the Durban Bayhead Dry Dock in the Harbor area. It is located on 110 South Coast Road, one of the main roads leading to Solomon Mahlangu Drive (Edwin Swales) which directly leads to the Bluff and all the National Roads.



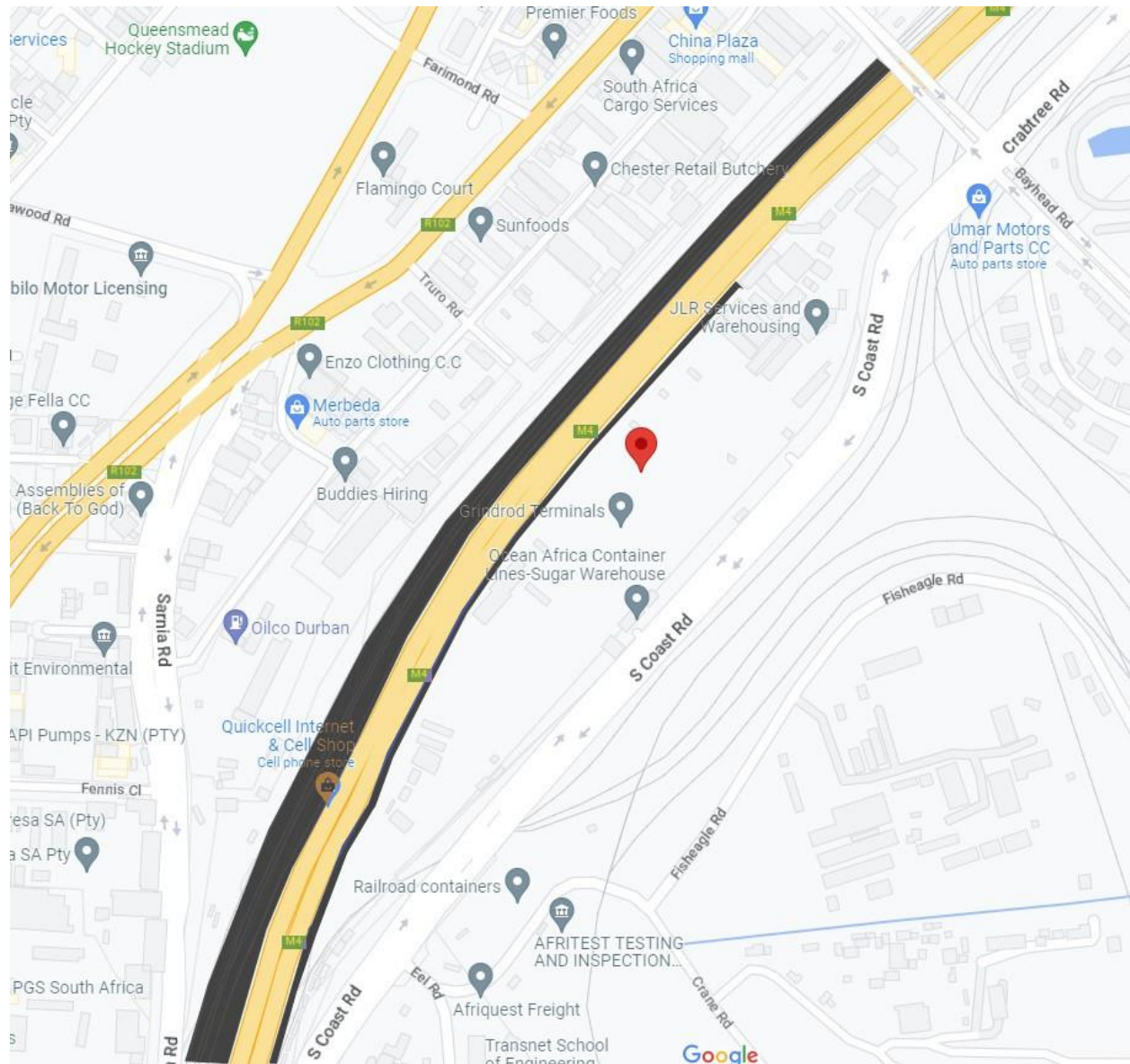
The industrial area also feeds directly into the Umbilo suburban area to the North West of the site and within 1km from the King Edward Hospital to the North of the property.

Site GPS Coordination:

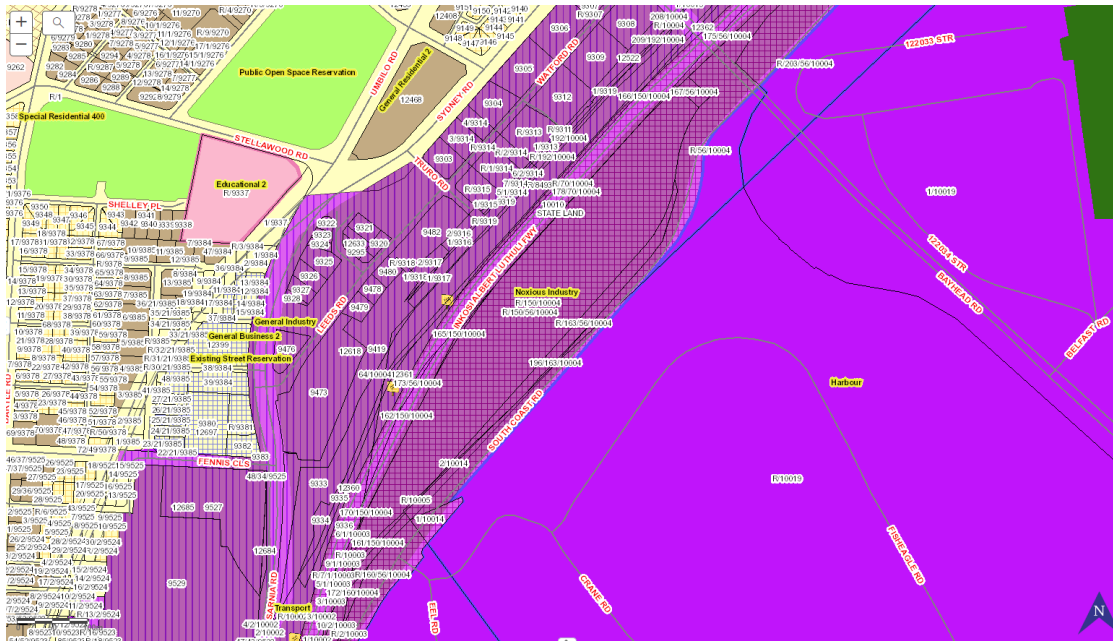
-29.888043, 30.987491

29°53'11.39"S 30°59'21.41"E

There is an existing railway track to the North West of the property which was an integral part to the history of the property. It also serves the property today which has an interleading track coming in from the Southern part of the property.



The property is zoned as Noxious Industry surrounded by layers of General Industry and General business zones as well as Harbour Zoned areas to the South.

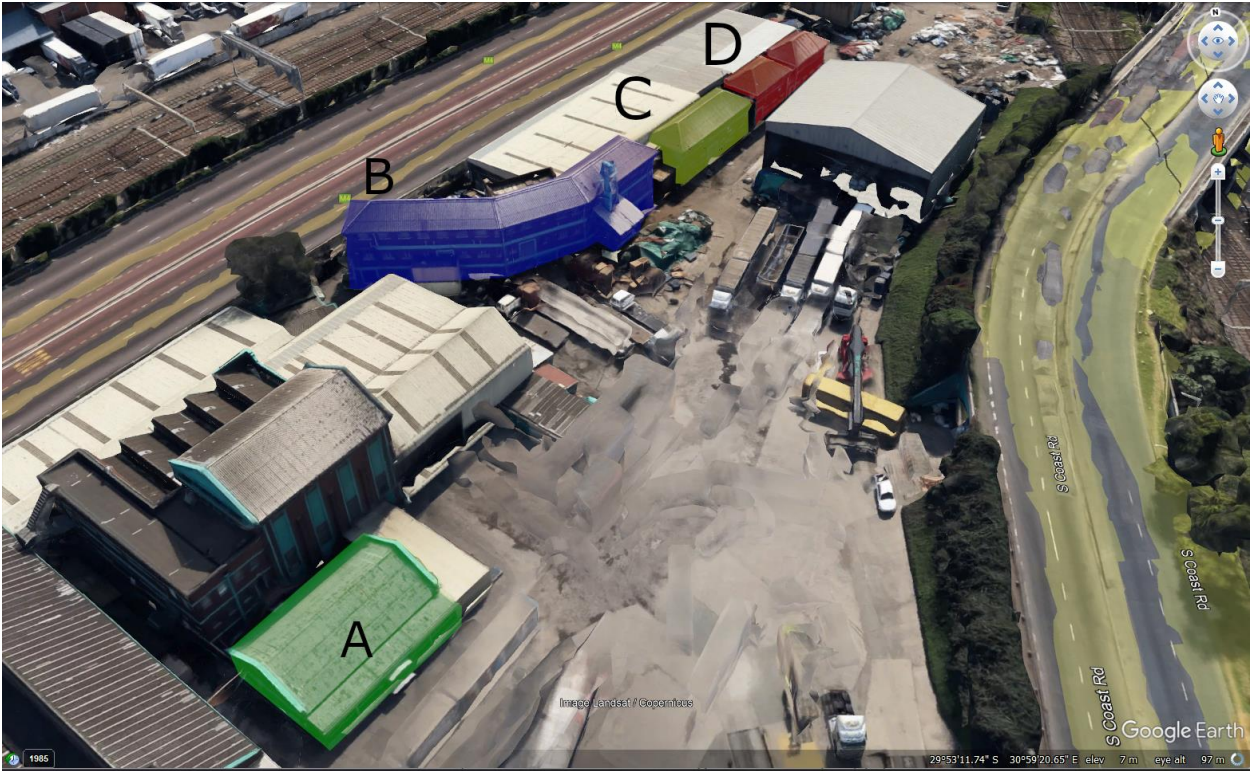


There is an underground cable servitude running through the property. This was part of the old Congella power station which fed the Old Durban Corporation as well as the Railway Administration. This servitude is still in use by the ESKOM Power Utility today.



However, buildings A, B, C and D experienced significant damage due to the 2022 Floods. Before the floods, the buildings were out of use and derelict and only Building B and D were at one point converted for grain storage, and eventually were left completely abandoned. Pilkington Barkers engineer’s report can be found under Annexure A.

Building A were out of use for several years due to structural damage to the roof and floor. The building had also experienced structural and electrical problems before. The floods in 2022 compounded extensive and irreparable damage to the building.



It is the owner’s intention to follow due processes and apply for a demolition permit for buildings A, B, C and D.

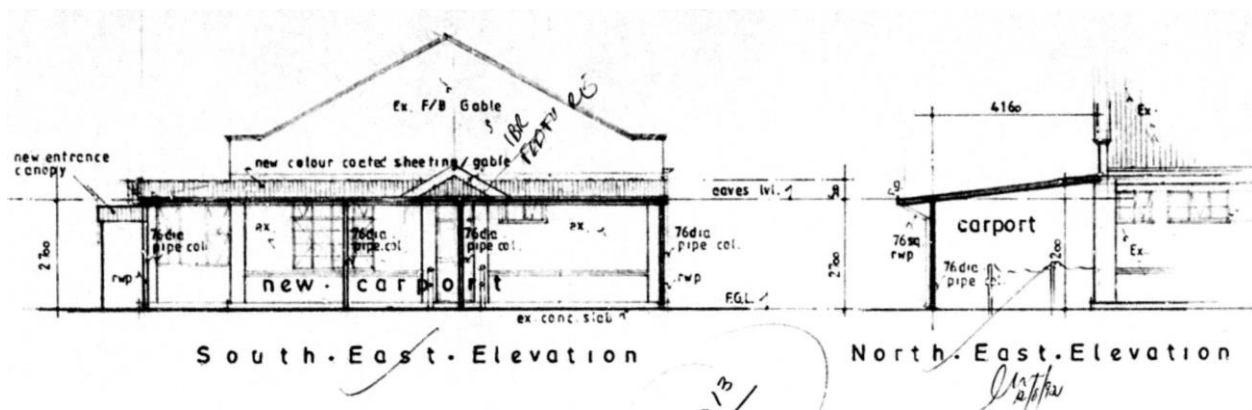
Original date of Construction

Although initial original plans are unobtainable from the Local Municipality, The South African Power Utility website states that the Congella Power Station was originally constructed around July 1926.¹

The station was extended a few times and was in operation for 50 years before it was finally decommissioned in 1978.

The latest major approved plans obtainable from the City Archives are from 1998 for “As-Built” plans for a large warehouse to the South Side of the Property for application no 0886/03/93 (See **Annexure A**).

However, the only plans that can be found for Building A dates back to 1991 which was an application for a car port to the North-Eastern side of the Office Building for JLR & HUA-YOON Enterprises. This application unfortunately only had the North-Eastern Façade in place.



There have been many other submissions made for this property over the years. However, not many applications have direct links with the older Congella power station buildings that can be referred to.

¹ (Various Authors ESKOM Website)

Historical Significance:

The demand for cheap electricity, lights and machinery to feed the Industrial revolution grew exponentially around the world in the early 20th century. South Africa was one of the first countries to adopt the use of electricity power. In 1882 Kimberly was the first town in South Africa to start using streetlights, even before London. In 1897, private and commercial power stations were built mainly for the mining sector and further developments over the next 2 decades culminated the idea of individual power stations into a single network. In 1922 The Electricity Act, no 42 of 1922, gave birth to the parastatal Electricity Supply Commission (ESCOM). ESCOM began building power stations in Cape Town and Durban and in many other areas in South Africa. ²

The Congella Power Station, also known as “The Old Smokey”, was a coal-fired power station located in the Congella suburb of Durban, South Africa. The power station was built in the 1920s on approximately 8 hectares of land belonging to the Railway Administration and was operational in February 1928 to July 1987. Congella Power Station was one of the first coal-fired power stations to be built and operated by the then Electricity Supply Commission (ESCOM).

The primary objective for constructing the Congella Power station was because of the needs of a fast-growing city and its railway infrastructure.

The power station was initially built with a capacity of 28 megawatts (MW) in 1928, but this was later increased to 98 MW in the 1938 and was considered one of the most technologically advanced Power Stations at the time. The station used pulverized coal as a fuel to drive the station and was Nicknamed “Old Smokey” due to the continuous smoke billowing from its tall chimneys. ³

Not long after, Congella Power Station 2 were added to the same site by Parsons & Co, to bring an additional 40 megawatts to the grid. More capacity to the Power Station were added in time, and by 1954 it was producing a total of 206MW to the grid.

However, the power station was also a significant source of pollution, and its emissions were known to have a negative impact on the local environment and public health and was dubbed by

² (Eberhard, Anton;, 2004)

³ (Various Authors ESKOM Website)

the local community as “The Old Smokey”. The power station ran in service for 50 years before it was finally decommissioned in 1978.⁴

Today, much of the existing buildings has been demolished or left derelict. Being so close to the harbor meant that storage for freight warehousing and storage like grain has become more lucrative for the site. The existing buildings has been reshaped and modified over the years to cater for general storage and warehousing.

⁴ (Various Authors ESKOM Website)

Architectural Significance

“What has emerged is not that we have any specific buildings or group of buildings, but rather that in the architectural expressions of a unique set of cultural and geographical forces we have local flavours of buildings and places which are rich and varied.”⁵

South Arica enjoys a rich and diverse selection of Architecture. Political and cultural influences have played a major role in the vernacular styles of Architecture found throughout the country today.

With the advent of the Dutch and British Colonies, a style of Architecture was inherited that has influenced Architecture for decades to come. The Congella Power Station were one such building where British influence are prevalent.

Building A



Rich red baked clay bricks stacked in the English Bond style were applied to the entire Power Station Construction at the time. The use of key materials such as raw bricks, concrete and iron which required little, or no maintenance embellished the typical character of the industrial

⁵ (Kearney, 1984)

revolution. Gabled roof styles were typical to the Industrial architecture which simplified the building for its intended use.

Protruding brick columns were emphasized on the external walls rather than providing a flat and monochromatic façade. This was further decorated with concrete cills to the lower parts of the walls which are synonymous to the British Colonialism Architecture. The centralized entrance door brings a sense of symmetry to the façade typical to Union Classical Style Architecture. Unfortunately, the original door is not present anymore, instead a rather unattractive modern Aluminium glass door has taken its place. Aluminium being chosen most likely due to the harsh climatic and corrosive conditions of Durban.

A decorative concrete ring beam have been constructed for structural stability as well as acting as a lintel above all the external windows and doors. Over the years the steel rebar within the ring main has eroded to a point where the Spalding has compromised the structural stability of the beams and roof structure.



Some of the original steel windows has remarkably survived the relentless onslaught of the Durban corrosive air over the decades. Although still present, much of its functionality is lost due

to rust corrosion. Most of the glass have been broken or cracked, possibly due to vandalism during its vacant period. Various types of glass are evident, most of which appears to be obscured glass.



At some point the South East Porch has been enclosed with modern Anodised Aluminium windows. Although the windows may have had the promise of longevity, these windows have added no value to the character of the building. A side entrance door has also been added most likely at the same time when the newer more modern windows were installed. This too has been unsympathetic to the existing building.



The existing roof sheeting are believed to be made from Asbestos. Asbestos was aggressively mined even before the construction of the Congella Power Station in 1928. Asbestos mining has only ceased as recently as 2002 and has been the leading cause of mesothelioma of which South

Africa having the largest cases in the world. The existing roof in building A has been damaged before and repairing the roof is not optional due to the high risk associated with Asbestos.⁶



Building B



Building B was also constructed out of red clay bricks and in an L-Shape. However, the protruded columns, concrete ring beams and elongated window cills are not evident as is at Building A. Instead, symmetry and alignment are absent almost as if the primary design approach of this building was purely for functionality. Even the British, Bond type brickwork style, are absent proving that less value were afforded to this building.

⁶ (Selby, 22 February 2023)

Entrance into the building is located in the centre which leads straight through the building to the back. This cold and uninviting entrance has a non functioning roller shutter door. The modern roller shutter doors have been installed at a later period, most likely due to the fact that it has been used as a storage facility. The invasive Grain Conveyor Tower gives no regard to the historic monolithic structure. Instead, it further violates the building by forcefully entering the building through the roof where large quantities of grain were stored.

Steel windows have also been used which compliments the rest of the original buildings at the time. Again, many of the windows do not function and have broken glass.



Existing or original drawings for buildings B, C and D are non-existing and therefore the original function of this building are not well known. However, It is believed to have been the workers residence at the time when the Coal Fired Power Station was in operation. Pictures of the existence of this building are evident as far back as 1948 and is believed to have been built at least at the same time as the second Power Station addition.



The lower ground floor has been used as storage in the past and after the 2022 floods, the building has been left derelict. The flood waters have reached a depth up to 1.2m at some places and has caused extensive damage to the building's infrastructure.



Most of the existing electrical fixtures and plumbing items has been vandalized and stolen from the property during the past year rendering the building unusable.





Important services such as fire hose reels and fire hydrants have been stolen and even some of the plumbing have been removed. Leaving the rest of the services to corrode under the Durban environment.

The first floor has been left completely vacant. There are no evidence of previous walls or rooms that may have been there in the past. The area has been used for grain and general storage in the past and roller shutter doors has been installed for that purpose.





The Third floor has room divisions with passages leading to what seems to have been communal kitchens and ablutions at some point. All the fittings and plumbing fixtures have been stripped or vandalised beyond repair. The existing roof have extensive damage which lead to water damage to the ceilings. The roof trusses are exposed and have been badly damaged by Wood Borah over the years. The roof sheeting is made from harmful Asbestos and will need to be removed by Health Specialists.



Roof Damage



A portion of Building A can only be accessed from Building B. A separate room have at some point in the past been created for Grain supply. A conveyor belt fed the grain through the roof and into a room on the first floor where the grain would be funneled into bales. Extensive and ad-hoc remedial work was done to penetrate through the roof and floors for this purpose. This has severely weakened the structural integrity of the building.



Building C and D



Building C and D are seemingly 3 different buildings. However, they are interconnected in-between with a passage. The last two buildings share a staircase and thus has been considered as a single building.

Here we can find the same red face brick pattern following through from Building B. Building C and D consist of a double storey structure. These buildings to have very little Architectural Ethos assigned to it. It's purely a functional building that in a basic form had provided its services to the end user at the time. These two building were also most likely built during the construction period of the second addition to the Congella Power Station.

Usage of this building during its original period is difficult to tell as original plans are not available from the City Archives. However, one can surmise that the large entrance doors may have been constructed that way for a workshop or a repair shop. During the Industrial Era, such a Workshop would most likely have played an important role. The first floor consists of open spaces.



The buildings have experienced some alterations and additions in the past. Most notably would be the South end of Building B which had received a steel staircase to lead to the first floor and from there access can be gained to Building A via a makeshift conveyor belt.



Grain use to be fed from Building B into building C via a conveyor belt and from there was sent for storage into building C and D.



Building C and D have also experience extensive damage from the floods and subsequent vandalism and theft.



Structural Damage are evident to Building D to the North.

Existing Buildings, Photographic Evidence

Building A



North East Elevation



Typical Floor finish



Typical Floor finish



Typical Floor finish



Typical internal wall finishes.



Roof damage to Building A



Typical Ceiling Finish



Typical Wall finishes in Building A. Note the modern glass blocks being used as well as the absence of timber skirtings. All doors were damaged during the floods. For more pictures, please see attached folder.

Building B



Building B South Elevation



Building B North Elevation



Building B South Elevation



Entrances to Building B Ground Floor



Typical Internal finishes.



Typical Communal ablution



Redundant Fire Services



Existing Staircase



Typical First Floor



Previous Ablutions



Passage to Bedrooms



Typical Bedroom



Typical Communal Kitchen



General Ceiling Damage



Typical Bedroom Elevation



Third Floor water damage



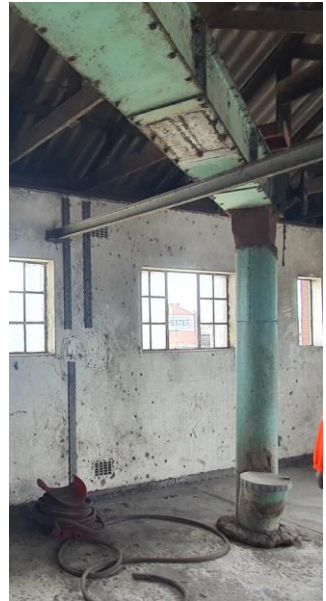
Third Floor water damage



Entrance to building B from Building C



Grain Funnel fed from Third Storey.



Thrid Floor Grain penetration through roof and floor

Building C



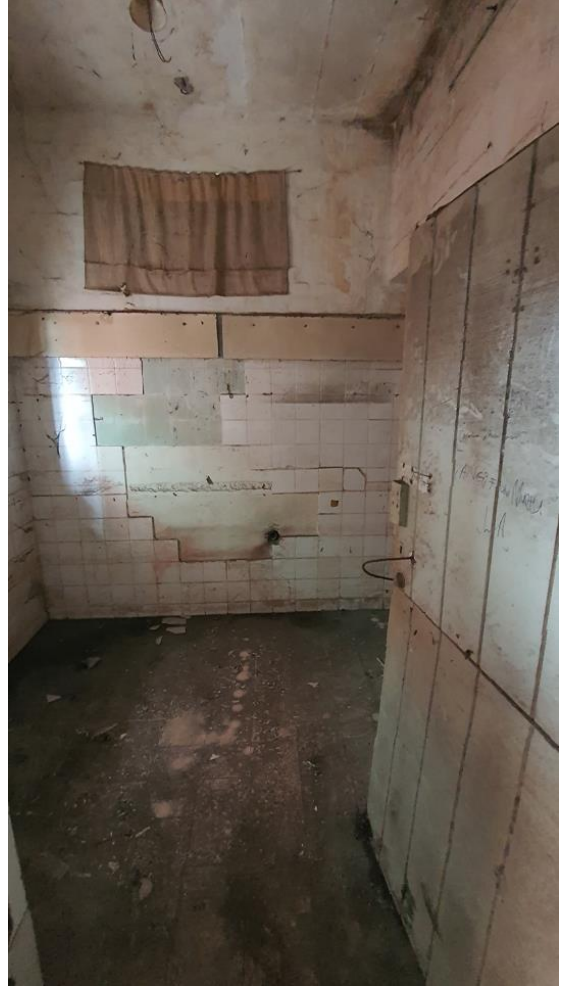
Building C South Elevation



Building C Entrance Internal View



Building C Ground Floor Passage



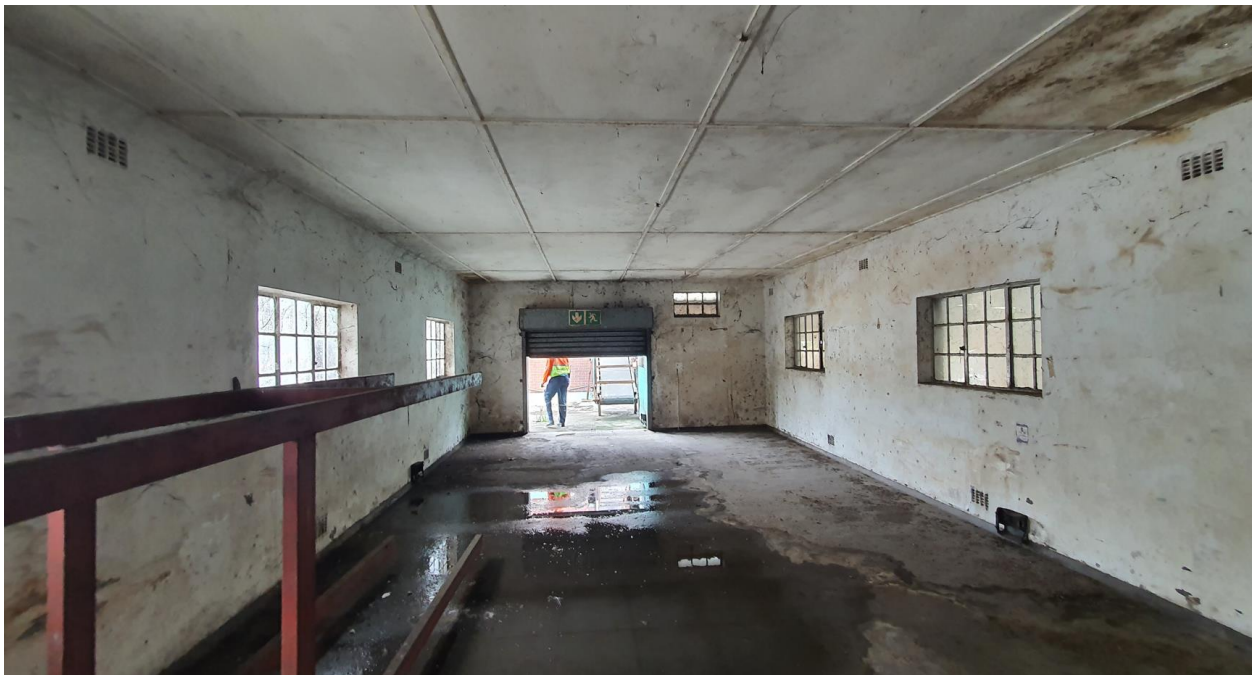
Building C Ablution



First Floor Ablution



First Floor Ablution. Note water damage.



First Floor Workshop Area



Ground Floor Workshop Area



Building C North Elevation

Building D



South Elevation



Entrance To building D



Entrance To building D



Damage to the North East corner



Ground Floor Internal view



Ground Floor Ablution



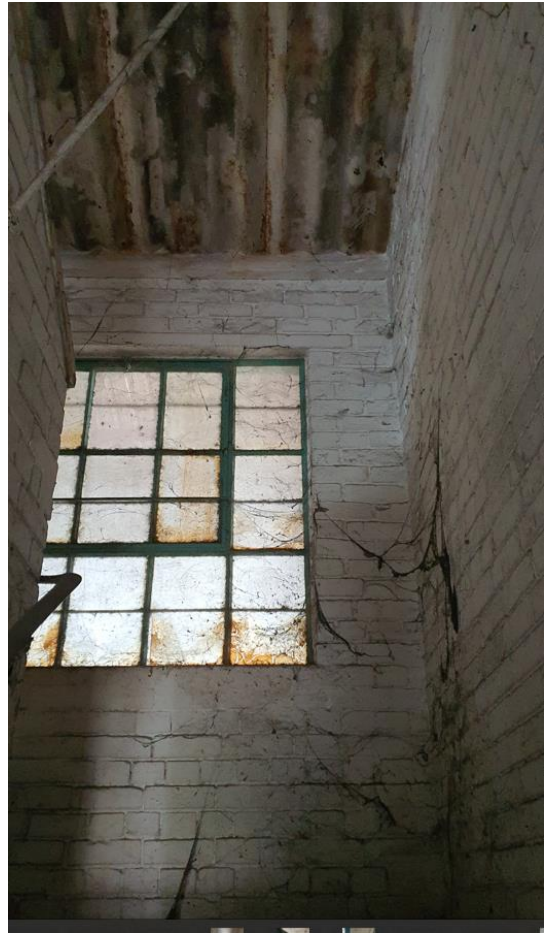
Ground Floor Kitchen



Ground Floor View



Ground Floor Passage



Stair to First Floor



Stair Treads to First Floor



First Floor view



First Floor Layout



First Floor View



First Floor View

CONCLUSION

Evidence of the 2022 Flood Damage is widespread and has resulted in extensive damage to the existing buildings. Many of the vehicles destroyed in the floods have remained in place in front of buildings B, C and D.

Structural damage to the buildings has been confirmed by the Structural Engineer (Annexure A). After the floods and during the time when the buildings were vacant, many services has been stripped, stolen and vandalized.

Damage to the Asbestos roof sheeting is widespread and cannot be repaired to the health risks involved and thus water damage has eroded the buildings further.

Over the years, many alterations have been done on the existing buildings. The usage of these buildings has changed to more robust warehousing and storage. Therefore, the historical significance of the building has been lost over time.

The cost of restoring the buildings is not feasible, coupled with the Asbestos health risk as well as the Structural Engineers report, we would therefore agree that the buildings are beyond restoration and that demolition of the remaining structures are a more viable option.



G. BESTER (Pr. Arch Tech)
Elphick Proome Architecture
16 the Boulevard, Westway Office Park, 3635, South Africa

2023-02-24

DATE

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Picture 1. *Picture of "The Old Smokey"*. Durban : SAR Publicity and Travel Department.

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Annexure A

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Cell: 083 409 5964
E-mail: nbarker@iafrica.com

21st February 2023

Mr P Buchholtz per email

**Revamped JLR Premises
110 South Coast Road
Umbilo Industrial Durban 4075**

Dear Sir

The writer has been requested to give his opinion as to why certain buildings mentioned here-under should be demolished.

During the well documented severe storms of April and May 2022, all the buildings at 110 South Coast Road were flooded to a depth of more than one metre with stormwater and mud from the nearby adjacent canal that broke its banks.

This has caused irreparable damage to all the buildings on the site.

Many of these structures require repairing.

The large main warehouse and the sheds A,B,C & D are required to be re-floored and re-sheeted.

The area between these buildings also require new floors and roofs.

The siding to the west of the sheds requires new floors and the roof sheeting being refurbished.

The warehouse buildings to the north and west of the large main warehouse also require complete refurbishment.

The hardstanding has been damaged by the flooding and requires to be replaced.

There are several buildings on site however that are uneconomical to repair.

The buildings, in question, which comprise older load bearing brick buildings have elements that have deteriorated over the many years of their existence and this is illustrated in the state of the roof trusses which are under the current asbestos roof sheeting.

Their asbestos roof sheets are generally badly damaged, they are unsound and will have to be removed as their supporting roof trusses, ceilings etc. which are full of Borer.

J. N.M. Barker Pr.Eng. B.Sc.(Civ Eng.) A.I.StructE. CESA. MSAICE

Pilkington Barker Consulting Engineers cc. 2009/156815/23

Established by Fred Pilkington in 1958

All the windows, doors, electrical fittings and finishes to these buildings have been vandalised and require replacement or refurbishing.

These buildings currently form part of the warehouse complex and whilst they were originally built as barracks or staff quarters, they serve no current commercial purpose.

These buildings have no use in this warehouse complex as they cannot be used for storage, being not practical nor safe.

They have no aesthetic value, and can easily be demolished with very little impact.

Should you require any further information we are happy to provide this.

We remain.

Yours faithfully

A handwritten signature in black ink, appearing to read 'J.N.M. Barker', written in a cursive style.

JNM BARKER PR Eng 750309

PILKINGTON BARKER cc