The urban design framework is a culmination of personal ideas, ideas inspired by urban design theory and guidelines introduced by Gapp Architects and Urban designers.

[02][01] STAKEHOLDERS

[02][01][01] CLIENT

The Identified Client is a shared venture between Egoli Gas and Lifestyle Lofts (Pty) Ltd. Lifestyle Lofts is a dynamic design and development company that has proved its vision and talent on projects such as the Refinery. A turnkey group comprising of architects, designers and builders have pioneered loft living in Johannesburg and inspired developments around the country. Egoli Gas will supply the site for further development.

[02][01][02] INVESTORS

Possible Investors identified are the following:
- Investec
- Nedbank
- Blue IQ for the expansion of the AFDA film campus and the Film Center
- Industrial Development Corporation
- (IDC opened a film and media division in 2001 that focuses on the promotion of the South-African film/media industry.

[02][01][03] USERS

The Precinct will attract a diverse and sophisticated market of users and will financially support surrounding communities by creating employment and education. Users of the precinct will include:
- People involved in media, film and creative arts
- Film directors, editor and actors and film producers
- Advertising companies
- Architects and designers
- Artists
- Students of AFDA, Wits Tech and university and RAU University (Recreational, retail and campus facilities)
- Professionals interested in an alternative urban life-style. Young married couples (loft living)
- Business people using the inner city (Boutique Hotel)
- A sophisticated market of Leisure seekers
- Community members of areas such as Vrededorp, Fordsburg and the CBD will be employed and trained.
- Individuals interested in film education and entertainment.
VISION FOR THE PRECINCT AS SPECIFIED BY THE CLIENT

"The vision is to create an urban environment that is a unique, dynamic and interactive precinct that will link up to existing and ongoing projects in the surrounding Milpark and Auckland Park and Braamfontein areas.

Functions within the urban environment should be geared towards media and creative personalities. The conversion of the existing buildings and all architectural additions should not undermine the integrity of the existing structures. The hope is to create a strong social dynamic throughout the site, an atmosphere of creative sharing and a feeling of security, tranquility and health. The complex should reflect an eclectic mix of ideas, held together by a common thread to attract a more diverse and sophisticated market.”  (Ricci Pollock, Lifestyle Lofts)

A. van Eyke said the following regarding place:

"Whatever space and time mean, place and occasion mean more...Space has no room, time not a moment for man...Make of each door a welcoming and give a face to each window. Make of each place, a bunch of places of each house and each city...”  "A place has its roots in its history; it is anchored in time and in a precise spot on the earth. A place has its dome, its sky and perhaps even its star. By building we fix special relationships between earth, sky and time.” (VON MEISSE, 1960, 132)
02|03 GENERAL BRIEFING
SPECIFICATIONS FOR THE PRECINCT AS SPECIFIED BY THE CLIENT

On an urban scale the brief asks for the utilization of all existing building and structures and taking into consideration environmental, structural and safety factors in order to create an urban precinct of diversity and identity.

The following functions will be included into the development of the Gasworks precinct.

02|03|01 ACCOMMODATION FACILITIES
A Boutique Hotel incorporating 25-30 rooms ranging in scale from 60-120 m², to be situated in existing buildings will cater for film and business executives making use of facilities in and around the site. Lofts will be created in the existing and new buildings on site.

02|03|02 COMMERCIAL FACILITIES
Commercial activity will include offices, film studios, and AFDA campus expansion and art and design studios. Commercial facilities will mainly focus around the film industry, catering for set-designers, editors and all other executives of a film crew. Existing and new office buildings to comprise of +/- 5000 m² will be geared towards media related industries. Two of the gas tanks are to be decommissioned by 2006. One tank will to be converted into a full film studio, the other into an underwater film studio. The AFDA film school will need to expand in the next 3 to 4 years. They will require +/- 4000 m² of land.

02|03|03 ENTERTAINMENT FACILITIES
Retail, restaurants and recreation facilities, along with a film museum and cinemas will mainly occur around the entertainment hub. The purpose of the entertainment hub is to draw people into the precinct creating a vibrant environment. Retail will include specialty shops concentrating on the fashion, craft and art and industry stores. Recreation may include a trim park with a 1 km running circuit and with various workout points. The cinemas will be interlinked with the film museum, functioning as independent cinemas hosting local and African talent.
The vision for the urban framework is to create an urban environment that is responsive to time and time’s needs, as well as to the site’s historical context.

**Verb**: Say or do something in reply or as a reaction

**Adjective**: responding readily and positively

**Verb**: Cause to arise or come about.

**Adjective**: Relating to or capable of production or reproduction.

*Oxford Dictionary of English, 1999*

The urban design takes a responsive approach to the existing context in order to generate a special place. Bentley’s idea of Responsive environments is applied to the framework design through the creation of a place that responds to the needs of its users. A meaningful place is created integrating the new framework with its existing environment and surroundings.

A maximum amount of choice is provided by introducing concepts of permeability, variety, legibility, robustness, visual appropriateness, and richness.

- The creation of a permeable environment liked to its surroundings allows users to access the site providing them with choice in experience, and a variety of uses.
- Legibility of the urban environment is achieved by creating physical linkages to the surroundings, allowing people to orientate themselves. Historical features such as the Retort buildings and the Gas tanks add to the legibility of the precinct.
- An environment of ‘Robustness’ is achieved by introducing a multi-faceted, multi-functional environment capable to adapt over time.
- By preserving all historical structures, specially the retort buildings and the gas tanks and by adding structures that enhance these cultural significant edifices a visual appropriateness is achieved, where the design speaks for itself in terms of identity. Appropriateness will help to make people aware of the choices offered.
- The urban framework encourages ‘Richness’ providing a combination of different design elements to form a sensible whole. A design that increase sense-experience, visual or non-visual, respect and use appropriate materials. New buildings should enhance and not copy the existing structures.

**New Urbanism**

Glocalisation is a concept conceived by a Japanese economist in the late 1980s to emphasize that globalization of products or services is more likely to succeed when the products or services are adapted specifically to each locality or culture they are marketed in.

The concept therefore points out for the co-existence of both universalizing and particularizing tendencies. In this way, glocalisation could be seen as representing interconnected processes of globalization and localizations or even as a local reaction to globalization. In urban development, the concept is becoming increasingly important as a means for enhancing inter-city relations, fostering cooperation between local and global actors in urban development and particularly alleviation of urban poverty.

*http://dept.kent.edu/geography/intro/Urban*
New Urbanism is a post-modern planning movement that is geared towards the creation of livable sustainable communities. The principles of New Urbanism are applied to the entire precinct.

The charter for New Urbanism advocates the restructuring of public policy and development practices to support the following principles:

The Neighborhood or precinct should be diverse in use and population and the community should be designed for the pedestrian transit as well as the car. The urban place should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

The charter for New Urbanism asserts the following principles to guide development practice, urban planning and design:

**WALKABILITY**
- Most things within a 10-minute walk of home and work
- Pedestrian friendly street design (buildings close to street; porches, windows & doors; tree-lined streets; on street parking; hidden parking lots; garages in rear lane; narrow, slow speed streets)
- Pedestrian streets free of cars in special cases

**CONNECTIVITY**
- Interconnected street grid network disperses traffic & eases walking
- A hierarchy of narrow streets, boulevards, and alleys
- High quality pedestrian network and public realm makes walking pleasurable

**MIXED-USE & DIVERSITY**
- A mix of shops, offices, apartments, and homes on site. Mixed-use within neighborhoods, within blocks, and within buildings
- Diversity of people - of ages, classes, cultures, and races

**MIXED HOUSING**
- A range of types, sizes and prices in closer proximity

**QUALITY ARCHITECTURE & URBAN DESIGN**
- Emphasis on beauty, aesthetics, human comfort, and creating a sense of place; Special placement of civic uses and sites within community. Human scale architecture & beautiful surroundings nourish the human spirit

**TRADITIONAL NEIGHBORHOOD STRUCTURE**
- Discernable center and edge
- Public space at center
- Importance of quality public realm; public open space designed as civic art
- Contains a range of uses and densities within 10-minute walk
- Transect planning: Highest densities at town center; progressively less dense towards the edge. The transect is an analytical system that conceptualizes mutually reinforcing elements, creating a series of specific natural habitats and/or urban lifestyle settings. The Transect integrates environmental methodology for habitat assessment with zoning methodology for community design. The professional boundary between the natural and man-made disappears, enabling environmentalists to assess the design of the human habitat and the urbanists to support the viability of nature. This urban-to-rural transect hierarchy has appropriate building and street types for each area along the continuum.

**INCREASED DENSITY**
- More buildings, residences, shops, and services closer together for ease of walking, to enable a more efficient use of services and resources, and to create a more convenient, enjoyable place to live.
- New Urbanism design principles are applied at the full range of densities from small towns, to large cities

**SMART TRANSPORTATION**
- A network of high-quality trains connecting cities, towns, and neighborhoods together
- Pedestrian-friendly design that encourages a
greater use of bicycles, rollerblades, scooters, and walking as daily transportation

**SUSTAINABILITY**
- Minimal environmental impact of development and its operations
- Eco-friendly technologies, respect for ecology and value of natural systems
- Energy efficiency
- Less use of finite fuels
- More local production
- More walking, less driving

**QUALITY OF LIFE**
- Taken together these add up to a high quality of life well worth living, and create places that enrich, uplift, and inspire the human spirit. ([http://www.newurbanism.org/pages/416429/index.htm](http://www.newurbanism.org/pages/416429/index.htm))
BASELINE CRITERIA FOR THE PRECINCT DEVELOPMENT CONSERVATION REGARDING THE GASWORKS PRECINCT

WHY CONSERVE?

Conservation means all the processes of looking after a place so as to retain its cultural significance. (ICOMOS, Burra Charter, 1999: Article 1)

Indicators of a culturally significant place are the following:

- Reflection of the true value: That is, whether the resource remains in the condition of its creation and reflects all its significant history.
- Integrity: That is, whether the site is fragmented, how much is missing, what are the recent additions.
- Context: That is, whether the context and the environment correspond to the original or other periods of significance, and whether you enhance or diminish the significance.
- Identity: That is, whether the local population identify themselves with the site, and whose identity the site reflects.
- Use and function: That is, the traditional pattern of use that have characterized the site. (ICOMOS, The Declaration of San Antonio, 1996)

WHY CONSERVE THE GASWORKS?

The Gasworks' buildings possess all indicators of a culturally significant place.

The reasons for conservation of this industrial site and its buildings are as follows:

- The Gasworks is a significant landmark for its adjacent surroundings, making the environment more legible. It gives a certain identity to Braamfontein.
- Most of the Buildings remain in the condition of their creation; only a few additional buildings were later added.
- The site and environment correspond to the context of the early 20th century.
- The Gasworks contribute to the industrial heritage of Johannesburg. It reinforces Johannesburg's identity as a past-industrial capital.
- The two main factories (Retort Houses) are declared as national monuments.
- The site still exists in its traditional pattern of use, with functions of buildings and structures all intact.

"Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records that are important as tangible expressions of ... identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about whom we are and the past that has formed us .... They are irreplaceable and precious. These places of cultural significance must be conserved for present and future generations. The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained. (ICOMOS, Burra Charter: 1999: Pream.)

CONSERVATION GUIDELINES FOR THE PRECINCT

According to Gapp Architects and Urban Designers, conservation and development principles must include the following:

- Structures earmarked for demolition should have no intrinsic conservation value. However, records should be established before demolition
- Minimal restoration is required as most structures are in a sound condition Corroded steel elements will need restoration
- New infill structures are to be carefully integrated with the old. Although the advantage being that the old is based on design principles and forms currently being used by many contemporary architects
- The entire site rates high in terms of conservation worthiness, due to its potential as an industrial archaeological treasure trove
- The South African Heritage Resources Agency (SAHRA) should be consulted early in the process to evaluate conservation guidelines.
The Gasworks precinct design guidelines will be geared towards adaptive re-use; conservative disassembly and re-using of salvage materials.

"Like ecological succession, adaptive reuse deals with directional change, a gentle and unpredictable temporal shift in the whole basis of the building’s structure and function: the succession of the built environment. Adaptive reuse "slows nutrient loss" while contributing to the diversity, complexity, and continuity of a particular place. Genuine places worthy of our affections are created through the process of adaptation." (Stewart Brand, 1994, 30)

The Burra Charter of 1999 suggests these guidelines for adaptive re-use: (The last column is an understanding of how the article is applicable to the Film Centre in the Gasworks.)

<table>
<thead>
<tr>
<th>Article</th>
<th>Adaptation</th>
<th>Application to the Gasworks site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 21</td>
<td>Adaptation must be limited to that which is essential to a use for the place determined in accordance with Articles 6 and 7.</td>
<td></td>
</tr>
<tr>
<td>21.1</td>
<td>Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place.</td>
<td></td>
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<tr>
<td>21.2</td>
<td>Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives.</td>
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</tr>
<tr>
<td>Article 6</td>
<td>Burra Charter Process</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>The cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analyzing. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy.</td>
<td></td>
</tr>
<tr>
<td>6.2</td>
<td>The policy for managing a place must be based on an understanding of its cultural significance.</td>
<td>&quot;Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. The term cultural significance is synonymous with heritage significance and cultural heritage value. Cultural significance may change as a result of the continuing history of the place. Understanding of cultural significance may change as a result of new information.&quot;</td>
</tr>
<tr>
<td>6.3</td>
<td>Policy development should also include consideration of other factors affecting the future of a place such as the owner’s needs, resources, external constraints and its physical condition.</td>
<td></td>
</tr>
<tr>
<td>Article 7</td>
<td>Use</td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Where the use of a place is of cultural significance it should be retained.</td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>A place should have a compatible use. The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of practices which contribute to the cultural significance of the place.</td>
<td>By adapting the Retort Buildings into Loft apartments will cause a decline in the cultural significance of the place. The identity of the buildings will be lost, since the space will be divided into smaller parts. A studio space will be a suitable option, since the interior &quot;cathedral like&quot; volumes are be retained.</td>
</tr>
</tbody>
</table>
To ensure that architects don’t undermine the historic fabric when they insert new systems into existing buildings, architects must confer with the *New Orleans Charter for Joint Preservation of Historic Structures and Artefacts (1992)*

The Charter acknowledge the conflicts that often arise between the needs of a building and the content it houses, and rejects strategies that support one at the expense of the other.

**ARCHITECTURAL RECORD 02/04**

Wilkinson Eyre Architects’s reuse of a steelworks in Rotterham, South Yorkshire, England is a typical example of how additions and adaptations can retain the extraordinary atmosphere of the old industrial building. By placing containers within the structure, the open volumes of the old building is preserved.
Fig. 2.6: Gapp framework, green spaces, and roads.

Fig. 2.7: Gapp framework, land use.
THE GAPP FRAMEWORK

Gapp Architects and Urban Designers propose a multi-use and diverse activity node, where people work, live and play for the Gasworks site redevelopment. The development will be built in phases starting with the entertainment Hub around the Retort Buildings.

CONCLUSIONS REGARDING URBAN DEVELOPMENT & DESIGN FRAMEWORK AS DRAWN UP BY GAPP

- The Site is well located in terms of access. It is in an area of transition close to a variety of income groups, educational institutions, the SABC complex, print and publishing media offices and creative industries.
- There appears to be a demand for a variety of uses
- There are no major constraints to the development of the site
- The site’s important historic buildings can be incorporated into the development, creating a unique character and special place.
- The site can accommodate between 75 000m² - 110 000m² of mixed use development, with the upper level being dependent on the removal of the gas storage tanks
- A vision has been prepared for the site which could create a specific character to attract a wide variety of tenants and users. Gapp’s vision for the desired character of the site compares to that of the Kuppersmühle in Germany, the Foundry in Cape Town and Covent Garden in London.
THE FOLLOWING FACILITIES ARE INCLUDED IN THE GAPP FRAMEWORK

Retail facilities will include a convenience store for surrounding offices and residential markets. Design emporiums, entertainment, pubs, restaurants and a major chain of 10-15000 m² – housing a Woolworths or Spar will also be included.

Offices will be for small and medium enterprises, with uses associated with the SABC, Wits and RAU. Professional and Loft offices will focus on the creative arts and entertainment sector.

Education and training facilities will be private collages, education linking up with Wits and RAU, computer training facilities and network centers. Hi-tech services will comprise of the computer, film and creative art industries.

Accommodation will concentrate on apartments, loft apartments and student residences.

The utilization of gas for street lighting, heating, air conditioning and cooking are encouraged.
The desired character for the precinct as envisaged by Gapp is the following:

Fig. 2.9 Victoria Junction Hotel and the Foundry: Cape Town

Fig. 2.10 Victoria Junction Hotel and the Foundry: Cape Town

Fig. 2.11 Victoria Junction Hotel and the Foundry: Cape Town

Fig. 2.12 Covent Garden: London

Fig. 2.13 Covent Garden: London

Fig. 2.14 Covent Garden: London

Fig. 2.15 The Kuppersmule, an industrial relic in Duisburg harbour area, has been inventively transformed to house a major collection of German art.
CRITIQUE ON GAPP FRAMEWORK

Only option B will be examined since most of the important structures contributing to the sites industrial heritage are retained.

- The Gas tanks are not sufficiently integrated with the rest of the framework. It may be because Gapp does not encourage architectural re-use of these structures.
- Although Gapp’s framework encourages the use of a north-south green corridor around the Braamfontein Spruit, linking up with surrounding areas, there is a lack in East-West linkage. A possible solution can be to extend the green corridor west into the university grounds, drawing students into the site.
- Parking areas are placed within important sight lines. This will be visually intrusive to the surroundings. This may be re-evaluated by placing parking within internal courtyards of buildings. This may even contribute to less permeable edges along internal streets, creating a more enclosed feeling.
- Gapp’s framework discourages the re-use of any buildings to the north on the site. The re-use of these buildings are suggested, since they will further contribute to the site’s industrial heritage.

By using the existing buildings as special structuring elements more interesting spaces between buildings are achieved.
FRAMEWORK DEVELOPMENT

Hard and soft spaces
Linkage
Green corridor
Integrate all buildings into framework
Respect retorts buildings and Gas tanks. Specially the tanks since they contribute to the overall legibility of the surroundings

Fig. 2.19_assessment of linkage
Fig. 2.20_assessment of land use
Fig. 2.21_development of land use
The Braamfontein Spruit has the potential to form a green corridor extending as far as Craighall. The site suffers east-west linkage. This is overcome by linking the entertainment hub directly with a pedestrian path with WITS and creating a proposed link with the new hotel school, WITS Technicon and Vrededorp.

The idea is for all links to converge into the entertainment hub of the site, from where activities will be dispersed. An activity spine is created along a linear path running north-south and an east west spine linking the university with the west. Retail, hi-tech services and entertainment facilities will be introduced along these activity spines, where commercial facilities form barriers between these spins and predominant residential areas. These will create a degree of privacy for these facilities.

The site show potential for infill, where the order, scale, pattern and form of the existing context must be respected.

Hard elements to be considered for preservation include all buildings on site, as well as the historical landscape features such as retention dams, ruins of the old tanks and the Braamfontein Spruit.

On the site linear datums organize random patterns of elements, this is seen where buildings are placed at random intervals. Linear paths are present throughout the sites content.

The scale of new buildings and infill must make spaces around retort buildings more humane. Clustered spatial organization is emphasized through the design by placing edifice face to face, this edge to edge contract, where there is a sharing of a common trait relationship between buildings.
Fig. 2.25. Model showing movement on site

Fig. 2.26. Model showing spatial sequencing
SITE LOCATION WITHIN THE PRECINCT

The site for the film centre falls within the entertainment hub of the precinct. It is situated on an old concrete purification platform east of the retort buildings. The site offers spectacular views to the retort buildings and the Braamfontein Spruit. A new building has the potential to enclose the open space around the historical retort houses and offers opportunities to link the site visually with the Spruit and the University. Since the chosen site is in direct adjacency to the retort houses, a responsive design approach is challenged in order to create a new edifice.
Fig. 2.31: Functions around film centre

- Residential and offices
- Retail
- Boutique hotel and loft apartments
- Film studio
- Film museum
- Residential, offices and retail
- Recreational facilities in green open space
urban framework

Fig. 2.32_ view from site to retort building

Fig. 2.33_ gas tank remain under cinemas
3 programme