

# trinity **-- one**

# masterplanning architecture

structure civil

TRINITY PLUS ONE PTY LTD ABN 151 628 965

# **'Delivering high quality design through creative collaboration'**

# **Design Philosophy**

#### progressive design solutions

At trinity+one we have a simple design philosophy. That is to provide creative design solutions for our client that responds to their brief.

The process we take with our projects starts with selection of people with the right skills for the job. Since one of the important aspects our design philosophy is creative collaboration this stage is crucial for us. we try to vary our design set by drawing upon the trinity+one network, that way we don't always use the same set of techniques. This makes our designs more specific and unique.

Often many offices have an off the shelf design policy, whereby they take a similar or previous project they have done before and just try to make it fit on a new site. at trinity+one we don't believe in this. We believe each project is different and requires a specific design.

We are a syntactical office, which basically means we use a lot of data in formulating our designs. This coupled with our advanced digital design skills allows us to manage / design / visualize our projects and produce information for our clients and the rest of the design team with clarity.



We also offer our services in the form of building information modeling (BIM) 3d, standard computer aided drawing (cad) 2d and advanced parametric modeling. It is with this advance skill set that we can offer a very comprehensive service to our clients.

With all these skill sets aside, our basic mantra is to provide our clients with a creative design solution which responds to the client's needs and requirements, with a reaction to the site and the environment.

### ESSD

### environmental and socially sustainable design

trinity+one has coined what we refer to as ESSD.

For those of you familiar with Environmentally Sustainable Design (ESD), we are just taking the next step. ESD is obvious and essential, but what is missing and so often overlooked by other designers is the social agenda. Thus we have Environmental and Socially Sustainable Design or ESSD for short.

With all of our designs we look at the impact of the project not just on the environment, but also at what the impact is socially, on a local, national or global scale. We also look at the inverse to see what impact these surrounding influences have on our projects.

We find this is key to true sustainability.



Many practises will sell themselves on the environmental properties of their design approach and their process. At trinity+one we see this as given, this is the easy part, where we see the fundamental gaps is design today is how buildings affect people outside the site.

# Staff

### high skilled design and documentation specialists

At trinity+one we have a permanent staff base and a comprehensive staff network. Our network is both local (inside australia) and global.

For each project we select the staff most suited and with the best skill set to suit the project needs and parameters. Our network consists of both individuals and other design practises. It is because of this staff flexibility, we can ensure the right people will be assigned to your project.

Rather than shuffling people onto the project, we build a specific team tailored to your needs.

#### **Project Experience**

#### **Gregory Burgess Architects**

SOPHIA MUNDI STEINER SCHOOL TYPE: Education BUDGET: \$2.5m \_ AMENITIES PROTOTYPES, FRANKSTON, VIC BUDGET: \$0.3m TYPE: Amenities \_HEALESVILLE MEMORIAL HALL BUDGET: \$6m TYPE: Public FRANKSTON YACHT CLUB REDEVELOPMENT TYPE: Hospitality BUDGET: \$6m HUME CENTRAL SECONDARY COLLEGE TYPE: Education BUDGET: \$14m DE YOUNG CENTRE FOR PERFORMING ARTS TYPE: Education BUDGET: \$12m DEAKIN INSTITUTE OF KOORIE EDUCATION TYPE: Education BUDGET: \$10m **BURRINJA CULTURAL CENTRE** TYPE: Public BUDGET: \$8m PURSER RESIDENCE TYPE: Residential BUDGET: \$~m

#### **Bate Architecture**

TANKERVILLE HOTEL ALTERATIONS TYPE: Hospitality BUDGET: \$~m \_WOOLLOOMOOLOO HOTEL REFURBISHMENT TYPE: Hospitality BUDGET: \$~m \_ MOE TABARET ALTERATIONS TYPE: Hospitality BUDGET: \$~m VICTORIA ON HYDE HOTEL TYPE: Hospitality BUDGET: \$~m UPPER YARRA RSL TYPE: Hospitality BUDGET: \$~m \_ MOOROODUC FOOD & WINE CENTRE TYPE: Hospitality BUDGET: \$~m SALE RACING CLUB TYPE: Hospitality BUDGET: \$~m

#### Murray Cockburn Partnership (Fiji and New Zealand)

PEACOCK/KENNEDY HOUSE II TYPE: Residential BUDGET: \$~m MCCURRACH REFURBISHMENTS TYPE: Residential BUDGET: \$~m \_ BUXTON HOUSE TYPE: Residential BUDGET: \$~m ST. MICHAELS SCHOOL CLASSROOM BLOCKS TYPE: Education BUDGET: \$~m COSMO RESIDENTIAL APARTMENTS, REMUERA TYPE: Mix Use BUDGET: \$~m NANAKSAR SIKH TEMPLE, MANUREWA TYPE: Religion BUDGET: \$~m



#### paul mikatoa

b(a) architecture

### design director

Paul is a registered architect in Australia, having relocated here in 2005 from Auckland, NZ.

He completed his bachelor of architecture in Auckland, and is a registered member of the Australian Institute of architects. with experience in high end residential, civic, educational and commercial projects, he later joined gregory burgess architects, as a project architect leading teams on residential, education and performance projects.

His skills in coordinating documentation packages for complex building types and his sharp eye for construction detailing with his proven technical knowledge has proved effective in high quality project delivery.

He has a strong interest in social and environmental sustainable design, innovative building technology, and construction procurement. His expertise lie in developing high end designs through to completion, and are based on his skills in client liaison, design, documentation and construction procurement.

#### Design Inc / STH / MCR

#### \_VICTORIAN COMPREHENSIVE CANCER CENTRE

TYPE: Hospital BUDGET: \$1bn

#### Cox Architecture

\_VICTORIA UNIVERSITY TYPE: Hospital BUDGET: \$\_ \_SOUTH MORANG RAIL EXTENSION TYPE: Infrastructure BUDGET: \$1.5m \_SYDNEY FOOTBALL STADIUM TYPE: Sport BUDGET: \$\_ \_METHODIST LADIES COLLEGE TYPE: Education BUDGET: \$4m \_BOX HILL ATO TYPE: Government BUDGET: \$\_

#### **Fender Katsalidis Architects**

\_MERDEKA TOWER, KL, MALYSIA TYPE: Commercial BUDGET: \$\_ \_2 NATIONAL, CANBERRA TYPE: Government BUDGET: \$170m \_NISHI, CANBERRA TYPE: Mixed Use BUDGET: \$170m

#### **Gregory Burgess Architects**

\_DEAKIN INSTITUTE OF KOORIE EDUCATION TYPE: Education BUDGET: \$12.75m \_BURRINJA CULTURAL CENTRE TYPE: Civic BUDGET: \$9.6m

#### ARM

\_HIGHPOINT SHOPPING CENTRETYPE: RetailBUDGET: \$200m\_RMIT BUILDING 22TYPE: EducationBUDGET: \$4.1m\_MCMULLINTYPE: HospitalBUDGET: \$25m

#### The Buchan Group

\_430 ST. KILDA ROAD TYPE: Residential BUDGET: \$\_

#### **BPTW Partnership**

\_CHERRYDOWN, ESSEX, UK TYPE: Residential BUDGET: \$\_ \_CLYDE TERRACE, LONDON, UK TYPE: Residential BUDGET: \$\_

#### **Deantus Projects / RKD Architects**

\_BAILEYS EXPANSION PLANT, BELFAST, UK TYPE: Industrial BUDGET: \$\_



**ruairi molloy** b(a) dip ma architecture

### documentation director

After working in the uk ruairi moved to Australia in 2006.

Ruairi's approach involves high quality, syntax based design produced via a process of innovative solutions and creative collaboration.

Specialising (with a masters) in advanced digital design systems, he has worked for a number of high profiled australian practices, leading both design and documentation roles.

In a previous life he trained as an architectural documenter, this coupled with his experience on site gave him the skills and experience to deliver and manage projects later in his career.

#### derek kinsella BSc(Eng), Dip Eng, Civ Eng Tech, RBI

#### structural + civil engine

Having been involved in the construction industry for over 27 years Derek has considerable experience in the design of offices, commercial, residential, institutional and leisure projects requiring a familiarity with a broad range of construction methods and materials. He has led both new build and refurbishment projects.

During his early career in Ireland he twice won the G&T Crampton centeneray award for the engineer most likely to make a significant contribution to the construction industry. He worked for Arup in Ireland before transferring to their Melbourne office in 2000. Derek spent time working for Beca and Robert Bird Group prior to his integration with Trinity+one.

His skills include all aspects of design of structures using either manual or computer aided design processes and he has excellent familiarity with the use of computer aided drafting. With a keen interest in lightweight structures he has been involved with several projects with the Arup facades group. He has carried out peer reviews of multistory residential towers and carries out independent checking and design of temporary structures for major building contractors.

#### **Project Experience**

Arup WEBB BRIDGE TYPE: Infrastrucure BUDGET:\$3.7m NGV TYPE: Public BUDGET: \$120m \_ST PETERS COLLEGE SPORTS HALL TYPE: Educational BUDGET:\$21m **\_CASEY AQUATIC CENTRE** TYPE: Sport BUDGET: \$52m JAPANESE AMBASSADORS RESIDENCE BUDGET: \$8m TYPE: Govenrment GILLTOWN STUD TYPE: Equestrian BUDGET:\$38m IBM CAMPUS TYPE: Industrial BUDGET: \$6bn

#### Beca

\_WOLF BLASS TYPE: Industrial BUDGET:\$85m \_SWIRE COLD STORAGE TYPE: Industrial BUDGET:\$15m \_TEA HAPUA BAY RESORT TYPE: Hospitality BUDGET:\$150m \_MELBOURNE MARKETS TYPE: Government BUDGET:\$250m



#### **Kinsella Consulting**

COUNTRY ROAD CAMBERWELL TYPE: Commercial BUDGET:\$3m \_METHODIST LADIES COLLEGE BUDGET:\$4m TYPE: Educational BUNNINGS TYPE: Commercial BUDGET:\$7m \_BARDOLPH AVENUE TYPE: Mixed use BUDGET: \$2.6m PRESBYTERIAN LADIES COLLEGE TYPE: Educational BUDGET: \$6m **BANOOL AVENUE** TYPE: Residential BUDGET: \$0.8m HACER GROUP TYPE: Commercial BUDGET:\$75m \_MELBOURNE UNIVERSITY TYPE: Educational BUDGET: \$8m

### **BIM Documentation**

### building information modelling



ITEGRATED MECHANICAL +

At trinity+one we design and document our projects with a Building Information Model (BIM). For this we use Revit. As an industry standard, this ensures that what we produce can be integrated with our consultants documentation..

Our staff have been responsible for the implementation of BIM production and documentation of projects as large as \$1bn AUS. If you require examples or further discussion please do not hesitate to contact us.

Rhino and Grasshopper

At trinity+one we also use high end 3D modelling and parametric design software such as rhino and grasshopper. This has been implemented previously on the design and construction of large stadium design and skyscrapers. If you require examples or further discussion please do not hesitate to contact us.



### **Production Workflow**



### **Advanced Concept Design**



### **Projects**

# **Flinders Street Station**

### new city hub and riverside development



One of the key design concepts involves building a new deck across the site at the same level as Federation Square. This deck then links a major route from South Bank across our site to Federation Square.

Our site and the station therefore becomes a key activity hub in the city. both in terms of transport and way finding.

The project aims to activate the North River Bank with retail / cafes / restaurants / bars and amenities. This will complement the existing South Bank and will reinforce the pedestrian flows along the edge of the site.

By building a deck over the existing platforms, the Stations main floor plate becomes larger, making it more suitable for the foreseen expansion in users and larger population. This also allows for more commercial / retail and food occupancy on site.

With the size and scale of the project, the site is ripe for a new commercial zone towards the western end. The format of the commercial component aims to build adjacent to the track for ease of construction. The new deck will integrate and become the commercial plaza.

The project also proposes the possibility of providing a new park between Queens Bridge and Sandridge Bridge. With landscape at a premium in the area, it will draw the populous into the site and also work as a programmatic land bridge between the opposing Banks of the Yarra River.





PUBLIC ENTRANCE



CORPORATE ENTRANCE



# Kings Sq. Fremantle

#### new urban and civic centre

The Site Proposal takes into account all aspects of Kings Square, and seeks to integrate the Building elements both existing and proposed.

The design aims to maximise the public space and to set up different areas of activity.

We use the existing buildings such as the Town Hall and St. Johns then overlay the proposed site flows and paths we want to create carving up the activity zones. We look at a Pop-Up zone beside St. Johns which can be used for Community Activities such as markets and fundraising events.



# **Kaoshiung Waterfront**

A biome refers to a diverse ecosystem. we are using this analogy as part of our concept in regards to our masterplan.

The brief refers to many different programs and activities put together on one site, so we have taken this idea and celebrated it. Instead of trying to create similarity between the different buildings and functions, we have chosen to look at each part as a seperate identity.

if we take the example of a coral reef the reef is made up of many different things, but when viewed or experienced all at once it is a homogenous landscape of variety.

waterfront music park and entertainment centre



### Semaihmoo Masterplan

#### vertical community



Proposed as a 'sustainable vertical community', this entry is a stack of housing units, honeycombed with gardens in the air, decks, and passages for air and natural light. The tower is unique because 60% of it is open void, its 21 storeys cut substantially away with recesses and residents' terraces.

As such, it is a temperate rain forest version of a tropical tower - a village in the sky with generous civic activity provided for at its base – recreation, shopping, dining, and the arts. The residential units themselves are stacked up like trays, each turned 90 degrees to the one before, such that a light well down the tower's centre distributes much as natural light as the exterior façade does.

# Vadabuse Sq. Concert Hall

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### underground concert hall \_\_\_\_\_ and town square

The design concept was generated around the idea of the square being a public place for people, an urban congregation space. Therefore we sought to place the concert hall underground, giving back open space to the people, while still providing an architectural solution.

The design of the space is that of a surface which mounds up and down, undulating to provide cover for the concert hall, and Open space for the people. That landscape is both hard and soft, Allowing for different activities whatever the weather.







# **Bangladesh Cyclone Shelter**

#### bamboo emergency shelter



Proposed design moves away from the normal concrete elevated boxes on stilts and looks at how we can use local materials such as the bamboo.

The raft (fl oating fl oor) was then added as a 'Plan B' incase the enclosing structure was to ever fail.

The raft is made up of recycled steel drums as the fl oatation device with bamboo fl ooring over. The building interacts with the surrounding on a day to day basis allowing natural light and ventilation. But during an emergency it is shut down to provide shelter and protection.

The building uses local and recycled material available locally making it sustainable and belonging to the place.



## **16 Henrietta Street**

#### museum for the irish diaspora

The design takes into account the circulation issues along with the tectonic principal of folded plates, and produces a system whereby the floor planes shift up and down creating a homogenous route through the building.

At this stage the surfaces inside the building become more activated, the potential for this along with the different exhibitions allows for a more interactive museum, where by the floors and walls of the spaces are part of the experience. The project itself uses this concept of surface shifting to mandate the vertical circulation between the different floor plates, which due to the nature of the site becomes unavoidable, but rather than simple considering this as a separate area and an inconsequent part of the plan, we take it on and make it an important feature. it is this embrace which becomes the signature of the project.

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POTENTIAL PROJECTIO

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# TOGS 2

#### temporary outdoor gallery space





The design takes on the simple tectonic of banding.

The bands (or if you prefer, ribbons) fold and twist across the front of the plaza. Although these twists may seem arbitrary, that is far from the truth.

The twists respond to the different gallery spaces, at times the bands are vertical, which provides walls for hanging and projection..... At other times, the bands are horizontal, which creates a roof, which protects sculptures and installations.

It is this play between enclosed and open areas, which gives the gallery its spatial and program richness The production of the gallery is through prefabricated means.

All of the beams are bent to the required form and threaded both male and female. The threading is important, it is to e ensured that the flanges line up when fully closed. The banding fabric will be pre-cut to the required shape. The only impact to the site, in terms of construction, is simple resin bolts into the existing concrete. This is low impact design.

all the elements are delivered in the togs boxes.





# **Venus Bay House**

# weekend retreat





### 99k House

### low cost housing design

The project looks at creating an affordable house for \$99k which addresses both social and environmental sustainability issues.

By re-defining green [amenity] space we can start to look at more dense populations of sites. The project addresses this by providing a green skin, which not only acts per-formatively to climate issues, but also allows for a symbiosis between tenant and building, allowing tenants to grow crops and tend a vertical garden.

TThe design plays with solid and void relationships for different space types. To create this we can recycle 20ft shipping containers into readymade rooms and stack them to fit the program. As Houston is the second largest shipping port in the US, there is no shortage of containers !

Although the architecture of the house is less conventional; with the relationship between tenant and house, the space becomes more interactive. It is this interactive living which can become the new blueprint for sustainable housing.

VOID SPACE [SHARED]





SOLID VOID ARRANGEMENT

SOLID SPACE [PRIVATE]

BEDROOMS BATHROOM TOILET KITCHEN

a play of

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### **Benneton Teheran**





### speciality retail design

The building form consists of three main blocks.

BLOCK 1 - Level 1 and 2 covers the whole site.

BLOCK 2 - Level 3 and 4. A rectangular block with its south face oriented to the south face of neighbouring east building

BLOCK 3 - Level 5, 6 and 7. Smaller in size. Its east side parallel to the west face of the neighbouring east building

One space: rather than having seperate retail spaces, level 1 and level 2 can be more spacious and homogenious with the use of voids and stairs.

The seperation between the three different retail business is then a logistical and administration process. Each product has a barcode. This barcode Identifies which retailer the product belongs to.

# **Pediatric Clinic**

### East Africa, satelite, health centre





The design concept for this project focuses on the relationship between family, community (global and local) and health organizations to fight for the children.

The placement of the buildings provides clear demarcation within the different areas of the complex without the need for barriers. A choice of mostly local building materials has been provided to allow for flexibility in sourcing the best possible option.

These clerestory roofs have been designed to assist with passive climate control – louvered and north facing. The open corridors between the buildings also assist with airflow.

The courtyards have the flexibility of use for either landscaping or as waiting areas for family members. The walls provide privacy but still retain the visual connection with the hospital area.



# **Exhibitions** and Publications



### **Flinders Street Station**

Exhibited 2012 Melbourne



### semiahmoo masterplan

Exhibited and Published 2009 Canada



16 Henrietta Street Exhibited 2008 Dublin





EES Competition Exhibited AA London 2006

## **Critiques and Lectures**



### AA London

London 2006

Guest critique of Final Year Students work and project presentation. in association with Urban Future Organisation

+ Workshop on Advanced Digital Design Workshop



### **UCL Bartlett**

London 2005

Guest critique of Final Year Students work and project presentation. in association with Urban Future Organisation

+ Workshop on Advanced Digital Design Workshop



#### Westminster University London 2005

Guest critique of Final Year Students work and project presentation. in association with Urban Future Organisation



# London Met University

Guest critique of Final Year Students work and project presentation. in association with Urban Future Organisation

## **Contact Information**

