



### *Upcoming General Meeting*

The QISD will be conducting its next General Meeting on **Tuesday 5<sup>th</sup> June, 2007**. For all you league followers this date has been set to avoid the up coming State of Origin series!!

The venue for this meeting is the Carina East Leagues Club. We have had several meetings there in the past and all with good feed-back from our members.

The move to having these General Meetings is in response to requests from members to be more involved in the QISD and to foster openness and unity among Steel Detailers. No one understands a detailer's plight more than another detailer. More conversation between members may see greater steel industry awareness of what goes into our day-to-day activities. Whether you work on a board or CAD, 2D or 3D, checker or estimator, there is always something new happening. New projects, new problems and new solutions.

If you have any suggestions for guest speakers, presenters or discussion topics, please let us know by way of the feed back area in the web site, by fax or phone.

Last Months tour of Laser Central was due to a suggestion of Andrew Skelton, one of the senior staff at Cadtech in Brisbane. Thanks Andrew for your suggestion and we hope you enjoyed the visit.

If anybody else who attended the tour has any further feed back to offer, please do so. Good or bad, it's worth us knowing what you think.

Flyers will be sent out in the next couple of weeks for the General Meeting so please be sure to respond to the invitation. Without your RSVP, catering for these events is little more than a wild guess.

Finally the committee would like to wish all members and their families a very Happy and Safe Easter.

Thank you

QISD Management Committee



### *Technology Integration Forum.*

The QISD is planning a presentation to the steel construction supply chain on the topic of Technology Integration and Steel Detailing. The purpose of this event is to bring together Detailers, Steel Merchants and Processors, Fabricators and hopefully some Engineers and builders to see what problems each participant faces and to see what the Detailers of Queensland can offer the industry by way of solutions to improve production times and reduce overall project costs.

Due to the historical fragmentation of the steel industry it's been difficult for each discipline to work together and focus on common goals that are beneficial to the whole supply chain. Today's program pressures can serve to increase project costs with logistics, data entry, double handling and errors caused by poor communication.

To address the industry's need to adopt faster and more efficient steel processing methods, more and more steel detailing firms are moving into 3D drafting solutions or exploring technology options to improve the downstream usage of their products.

This will be a bipartisan presentation by the QISD. It's not intended to compare detailing companies, detailing software or current requirements of some fabricators. It will be an information night where all parties might take away ideas that improve their productivity.

The QISD has already conducted a similar presentation to industry participants, using a sample 3D detailing model to explain the methods in which data can be retrieved by a steel detailer. The real time generation of sample reports and interrogation of a model was conducted in order to demonstrate some of the smaller deliverables, part list reports, NC data and DXF data. They also used information extracted from the model to explain the possibilities of batch processing.

From previous discussions, it's become apparent that the type of information that both the fabricator and the merchants require mostly is member data, hole data and cutting data.

All of this information is easily extracted from various standard reports or custom reports that can be generated thereby collating various fields from some of the 3D drafting software program databases.

This presentation will give detailers the opportunity to explain some of the issues associated with providing this extra information over and above the normal detail drawing deliverable, such as the extra responsibility on the detailing company to manage and control the flow of this data as well as the detail drawings.

It's hoped that this forum may help steel merchants and fabricators identify what information they require from their detailer and when they require it. At this stage it seems that many of the detailing software packages used today can provide most if not all the information they require.

The date for this event is set for **Wednesday 2<sup>nd</sup> May from 6.00pm**. Keep an eye out for the flyer which will have all the venue details.....Oh.....and yes, there will be *refreshments*.



## ***THE ROLE OF THE STEEL DETAILER.***

Our detailer colleagues in Victoria have done some good work in developing a formal statement that clearly identifies the role and responsibilities of the steel detailer. The QISD has sought and been given permission by the VISD to use and customize their statement for our own use. This project is yet to be signed off but the final product should read something like the article printed below. If you have any comments on this statement please send them to your management committee using the feed-back address on the QISD web-site. We would also encourage discussion on the web based QISD chat forum.

### ***PROFESSIONAL DECLARATION***

1. A Steel Detailer is a person who prepares detailed shop drawings to enable the fabrication, transportation & erection of structural steelwork on building and construction projects.
2. In order to produce these detailed drawings, the Steel Detailer interprets the information contained in the design documents provided by the design professionals for a proposed project as follows:-
  - The dimensional elements of the structure are generally ascertained from the Architect's documents. The Architect usually has overall responsibility for documenting the design & dimensional intent of the structure.
  - The structural steelwork elements of that structure are determined from the Structural Engineer's documentation. The Structural Engineer is often a sub consultant of the Architect and is usually responsible for documenting the structural framing design including structural steel member sizing and appropriately designed connections.

Any work requested of the Steel Detailer other than the detailing of structural steelwork specifically shown on the engineering drawings, falls outside the definitive role of the Steel Detailer. For instance, assisting the Architect or Engineer to resolve problems with the design is additional to the role normally associated with the production of detailed Structural Steel shop drawings. Any additional work would only be carried out subject to a separate commercial agreement and on the basis that overall responsibility for the design remains with the design professionals.

3. It is not the role of the Steel Detailer to assume any part of the design role of the Engineer or Architect, either in setting out or rectifying the structural or dimensional requirements of the proposed structure. Steel Detailers are not designers of steel member sizes or associated structural connections and cannot be held responsible for structural dimensions. In any event, they are not legally able to accept this role.
4. It is not the role of the Steel Detailer to generate RFI's so as to complete the design documentation. RFI's are only for the clarification of the design documents.
5. While it is the Steel Detailers responsibility to report any discrepancies that are discovered in the design documents, it is not the Steel Detailers responsibility to discover discrepancies, including those associated with the coordination of the various design disciplines. The quality of the design documents is the responsibility of the consultants that produce those documents.



## ***STRUCTURAL STEEL DETAILER TRAINING.***

You may be aware that late last year the Australian Steel Institute, together with the QLD & NSW Institutes of Steel Detailers prepared a submission to the Federal Government Department of Education, Science & Training seeking funding for a 12 month full time position for an individual to work with steel industry bodies and training providers to create and implement a nationally accredited training program for steel detailers.

Although this project was given support by the department, the Federal minister has rejected this submission.

The Victorian Institute of Steel Detailers has now taken up the baton and is driving the QLD and NSW branches, along with the ASI down another route in the hope of ending up with this nationally accredited training program. This alternative will require greater input from detailers in preparing a curriculum and delivery methods but should create the desired result.

The ASI is very keen to pursue this. Many of their fabricator members have highlighted steel detailing as a bottle-neck in the steel fabrication industry so the ASI see this as means of responding to their membership stakeholders.

In short, the plan is to utilize the Manufacturing Skills Council (MSA - a Federal Government funded body) to work with the ASI and the various state-based Steel Detailer Institutes to develop and supply a training curriculum based on the units of competency system. Refer to their web site [www.mskills.com.au](http://www.mskills.com.au) for more background on this organization.

The overall strategy is to maximize any existing courses to deliver the broader components of the detailing course and to develop a range of learning and assessment resources to support the units of competency specific to the Steel Detailer Training Package.

The resulting training recognition would be incremental so to provide Certificates 1 through 4, Diploma and Advanced Diploma.

It's expected that Cert 1 & 2 training would be delivered by existing Registered Training Organisations (RTO's) such as Secondary Colleges and TAFE and the higher qualifications would also involve employer assessment criteria.

Please bare in mind that this is very early days and so far, no promises have been made. In the mean time, we at the QISD hope to meet soon with the other state detailer groups, the ASI and MSA to develop these plans further. We'll keep you posted.

### ***QISD - Certification of Detailers***

One of the primary aims and objectives of the QISD is to recognise the education and training of steel detailers. While steps are currently being taken to develop an external, formal detailing course we are also conscious of the need to provide a system of individual assessment that would result in a more detailed and industry wide accreditation.

Consequently we believe the external formal detailing course and the practical training provided by the employer needs to be acknowledged through a system of accreditation before an individual is considered certified as a Steel Detailer.



### *QISD - Certification of Detailers...cont'd*

Whilst the QISD system of accreditation based on employer assessment is intended to be used primarily for the accreditation of cadets, it could also be used by the many experienced detailers already in our industry who, up to now, have not enjoyed the benefit of any formal, industry recognition of their experience.

The management committee is currently looking at this issue and following are some thoughts and ideas that have been put together for members to review and provide input on at the next General Meeting.

### *Why do we need Certification for Structural Detailers ?*

The Structural Steel Shop Detailing industry does not have any form of credentials that acknowledges the level of competency and training a detailer already has or is obtaining. If we can develop a system that provides such accreditation we believe this will not only lift the profile of our industry and provide fulfilment for the certified individual it will also ensure that quality steel detailers can more easily be identified from those that are not.

After discussions between committee members we are of the view that it should be the responsibility of the employer to train their staff to a level that satisfies the, yet to be established, QISD requirements.

On reaching the required competency level and with endorsement of the employer, the QISD could then issue a suitable certification stating the recipient has reached a level of detailing competency to the satisfaction of the QISD.

Certification of self-employed detailers could be achieved with the endorsement of the Management Committee.

### *What are we trying to achieve with Certification ?*

To achieve QISD CERTIFICATION we believe there has to be some form of checks and balances for assessing cadets, detailers and senior detailers through the practical phase. The evaluation process and documentation that one might consider for assessing any of these categories would need to be able to accurately establish the competency and experience level of the individual. The competency assessment would need to be able to easily validate the different types of detailing and the degree of exposure to the types of detailing the individual has experienced.

Perhaps the review could also look at the individual's competency with regards to other areas besides detailing, for example; use of software, productivity or interaction related issues.

At the end of the day what we are probably looking for is a series of assessment sheets that enable us to accurately assess and record how competent a cadet/detailer is within our industry.

### *How are we going to achieve Certification ?*

The QISD could develop a check list set of documents that are required to be completed by the employer of the individual in training. This check list would basically show all aspects that the QISD decrees must be covered within any steel detailer training program.

If the employer is the one responsible for the cadets training and has a vested interest in the quality of that training then it seems obvious that they should be the ones to ensure full compliance to the QISD standards set.



## *From a Member's Perspective*

### *A Chance to be Heard.....*

The QISD is many things to many different people and Companies. For me, a small growing business it is a resource centre where experiences can be shared. It offers a feeling of not operating in isolation and provides a body where ideas can be voiced which has a greater chance of being heard. Perhaps the greatest benefit I believe gained by the QISD is simply recognition as an industry. The representation it provides at the ASI night is a good example of this. How many Builders, Fabricators, Suppliers, Engineers and Architects walk away from that event with a sense that we are a group of highly skilled professionals supplying good services to the industry? The smart ones would know this anyway but it helps to reinforce it!

I have seen first hand the changes in this industry 'steel detailing' over the almost two decades I have been involved. Once upon a time I recall consultants would barely speak to a detailer and a return call was a rare event. The regard for Detail Draftspersons and there opinions was

much to be desired. Nowadays Detailers are held in much higher regard (where they belong) and our opinions are not only welcome but very much sought after. There are perhaps many reasons for this and I am not suggesting the QISD can take the credit but it continues to develop our relationship with wider industry which potentially benefits us all.

It is easy to be a critic of the QISD and I have heard from a few. It still surprises me any notion that a handful of men or women elected as unpaid office bearers to the QISD is somehow expected to make radical overnight changes to the problems we all face. We are all busy with careers, families and if your lucky hobbies (no ... drafting is not a hobby) so the people donating their time to the QISD should be congratulated.

The QISD is still young and needs to be nurtured and supported by all so it can continue to develop into a mature organization. It is worth mentioning that similar bodies such as the well funded Architects and Engineers associations have been running for many decades and still face their own difficult issues, but I bet they would not dare be without representation.

Tony Dwyer  
TD Drafting Services  
QISD Member



### *A Sense of Belonging.....*

Membership of the QISD means a lot of different things to each individual member.

In the early stages of the QISD the willingness of a few visionaries resulted in the formation of the Queensland body that would support a previously unrecognized group of draftspersons who against the odds produced workshop drawings for a living. One aspect the QISD now provides both directly and indirectly to myself and each and every member is a sense of belonging to a key and influential part of the steel industry.

This belonging has been bought about by the committee facilitating tours of many steel industry businesses, including construction sites, workshops, suppliers and specialists.

These visits provide not only the opportunity to learn but also to meet with like minded people who also belong to our detailing family.

Having attended the ASI awards night, it is with pride that I have seen our QISD present awards to steel industry participants that are embraced not only by the recipients but more importantly by the steel industry. This annual awards night brings detailers into the spot light and grants us credibility and influence now and in the future.

The QISD has been providing education and training guidance to the steel industry that in turn raises the profile of a steel detailer. This provision should make us all feel that we have something worthwhile to offer in educating those who seek to achieve.

These are but a few of the many initiatives that our QISD leaders have implemented to surely give us all a sense of belonging to a worthwhile and influential body that has made a significant difference to the plight of the humble steel detailer.

Kerry Lindemann  
QISD member



### *Letter to the Editor*

#### **Education is clearly needed on the processes of 3D Integration**

Recently I received a call from a local steel merchant who was after some additional information from one of my detail drawings to enable them to process a cleat.

For all those that are familiar with 3D detailing packages its possible to mass produce what is termed 'Fitting details' or single part detail sheets, thus enabling the user to cut down on the detail shown on an Assembly drawing.

I questioned the merchant and asked him if our fabricator client had passed on the fitting sheets and to my amazement he had not. To clarify the situation further I was speaking with one of their programmers, these are the guys that nest plate details on to sheets of steel for plate profiling.

I was beside myself to find that the fabricator did not send the merchant this information, further to that the fabricator did not pass on the DXF files and or NC files that we provided with the Construction issue of the drawings.

From this I have to assume that the industry needs to wake up to what this information is all about. 3D packages are designed to produce data that can be used in a variety of levels in the steel fabrication process.

If I were a steel merchant the first thing I would be asking the fabrication company when I got the order to do the work is, where are the NC files? Do you have them and do you have a report to quantify the parts?

Its time the steel industry as a whole came together and got educated on the processes of 3D integration, find out what information can be extracted, what it all means and how it benefits the industry and most importantly, how it effects their business?

It's a reality that 3D detailing is a popular way to produce structural Steel detail drawings and it's also a reality that fabricators throughout Queensland are sending their steelwork out to merchants for processing. One would have to gather from this that it's a reality that the industry needs industry awareness!

Signed, Anonymous QISD Memeber



## ***PACIFIC STRUCTURAL STEEL CONFERENCE 2007***

The Pacific Structural Steel Conference (PSSC) was held in March at the Wairakei Resort Hotel in New Zealand. The main theme of the conference was *Steel Structures in Natural Hazards*.

We understand the conference was a great success, and saw over 250 delegates and their partners from all over the Pacific Rim and even as far off as the UK, South Africa and the Middle East, savouring the wide variety of papers, topics and discussions, as well as the local cuisine and sights.

Following is a list of **Fast Facts** compiled by QISD member Kel Everson (QEI) who attended the conference.

### ***TEN FAST FACTS:***

1. Location: Wairakei, New Zealand – March 2007.
2. China reported its *second* largest construction project currently underway is 45,000t.
3. Canada reported it no longer manufactures hot rolled members.
4. Singapore reported it no longer manufactures any members. All Sections are imported from anywhere, resulting in annoying variation in member dimensional sizes.
5. Australia reported placement of twenty beam line machines in the last 12 month period.
6. Japan reported it has exhausted the domestic market for infrastructure bridge works and such projects are on the decline
7. New Zealand reported a quadrupling of Structural Steel's market share since the last downturn of the early 1990's. (compare N.Z. 1994 National usage of 40,000t to China's 2<sup>nd</sup> largest *single project*)
8. USA reported significant competition from the Concrete Construction industry.
9. 250 delegates attended representing 11 nations from the Pacific region, as well as delegates from Oman and Great Britain.
10. The next PSSC will be held in Beijing, 2010.

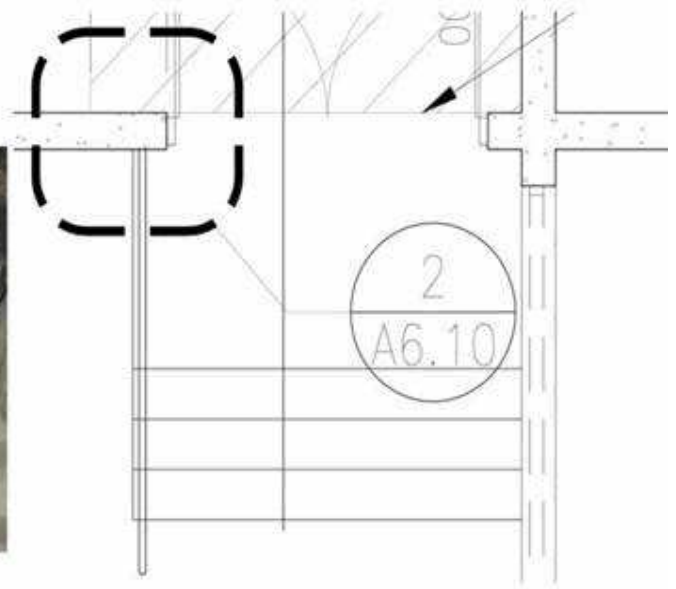




***QISD Puzzle Time!!***

Pick the fault below

Seems builders do not need dimensions!





*QISD Postcard Section*



Two new coal stackers built last year at the Millennium Coal Mine, West of Mackay. Detailed by Steelcad Drafting Pty Ltd



New casino in Las Vegas called "Palazzo" containing approximately 70,000t of structural steel. Detailed by BDS Steel Detailers – Brisbane



### *QISD tour of Laser Central*

On the 7<sup>th</sup> of March approximately 20 members of the QISD attended a guided tour of Laser Central at Richlands

Michael Ballard, Senior Account Manager for the company along with his associate Jay Bond provided an extremely well informed tour explaining the processes and cutting edge technology currently used in the plant

Members of the tour were walked through all aspects of the processes involved, from the time when an order is placed to when it is shipped out to the customer. While the tour was late afternoon Laser Central was working shift work which allowed the tour party to see a majority of the machinery in full flight.

The QISD would sincerely like to thank Michael, Jay and Laser Central for their time on the day and their willingness to educate our members who attended. We would also like to thank our hosts for the scrumptious snacks & refreshments provided at the conclusion of the tour.

If you have any questions at all about the cutting options available then I am sure Michael and his team would be most accommodating. Please refer to their website for more information. [www.lasercentral.com.au](http://www.lasercentral.com.au)

Following is summation of the tour through the eyes of one of the QISD younger members who attended on the day.

*Laser Central provided some good insight into the innovative technology that has been developed over the years to better improve our industry. The technology used provides a very efficient and highly accurate means of cutting a full range of flatbed steel plus many different types of hollow sections.*

*Being a second year cadet with BDS Steel Detailers the tour gave me a great opportunity to see this technology and machinery first hand and it was also very interesting to hear and see how the information from the software I work with is utilized. It was amazing to see some of the machinery at work in the plant and how all these were controlled by downloads from the 3D cutting software.*

*The use of the latest software helps to ensure the accuracy of cutting which is generated from the machines. With the new 6 axis cutting laser the machine is able to cut nearly impossible angles with ease and in one clean pass. In the past a lot of the cutting that Laser Central did would have been carried out by several different processes before finally getting the end product, but with the new laser cutting equipment we saw it could be done in one single process. All I can say is thank god for the 21<sup>st</sup> century.*

*I really enjoyed the experience of being able to get out of the office and see what else goes on in my industry in which case I would like to thank Laser Central for their time and effort in carrying out the tour. By Aaron Thornhill*



QISD members assembling before the tour



QISD members getting a very close view of the new 3d laser cutting machinery in use



Various examples of the laser cutting that can be carried by Laser Central



**Feedback....**

As requested in previous newsletters for the Institute to know what issues are really concerning its members we need to get constructive feedback. If you have any specific issues or ideas please find the time to write them down and send them through to the committee for due consideration.

**Feedback Form**

This is **your** QISD so please take the time to let us know what you think.

**Fax to QISD:** (07) 3844 9477  
**Email to QISD:** [feedback@qisd.org.au](mailto:feedback@qisd.org.au)  
**Post to QISD:** QISD  
PO Box 8250  
Woolloongabba  
Brisbane Qld, 4102

Comments:

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**Thank you for your input,  
Queensland Institute of Steel Detailers**