

# GUEST COLUMN

dedicated to the dissemination of information from other organizations

## Overview of the National Institute of Steel Detailing

By Kerri Olsen

Kerri Olsen is the Marketing Chair of the NISD. She may be contacted at [kerriolsen@steeladvice.com](mailto:kerriolsen@steeladvice.com). The NISD may be contacted at [www.nisd.org](http://www.nisd.org).



Founded in 1969, the National Institute of Steel Detailing or NISD is an organization which fosters a professional approach to doing business as a steel detailer in the construction industry. The mission of the group is to create a better understanding of the importance of steel detailing services, by advocating improved quality, education and certification.

### Certification

Many steel detailers are self-taught beyond the limited offerings of trade schools. Some are mentored by more experienced self-taught steel detailers, creating drawings according to steel fabricator preferences. As such, they do not have full knowledge of standard detailing practices or business practices which work to support other related industry professionals. This is a common history for steel detailers and has been the reason for lack of consistency with drawing editing, presentation and business practice.

Industry professionals are in search of talented detailers who have the knowledge and capability to produce quality shop

detail drawings within the framework of various codes, specifications and contract documents.

The NISD created the Individual Detailer Certification Program or IDC in response to the industry's need to determine the skill level of individuals performing steel detailing services. The IDC program offers worldwide certification in two disciplines: Bridge and Structural/Miscellaneous.

The IDC program examines and evaluates an individual's detailing knowledge and issues a certificate attesting to that level of knowledge. Currently, the NISD is working to establish an industry-wide professional standard of practice in conjunction with the Quality Procedures Certification Program for Companies.

Individuals applying for certification must meet the following requirements:

#### Senior Detailer (Class 1)

This classification is for applicants who have a minimum of 10 years detailing experience in addition to some checking experience. These applicants are required to submit detailed experience history and a letter of recommendation with their application. The letter of recommendation may be from a steel fabricator, an IDC Certified Senior Detailer, or an NISD National Director.

#### Detailer (Class II)

This classification is for applicants who have a minimum of 5 years detailing experience, or who have 3 years detailing experience and have satisfactorily

completed a formal training program. These applicants are required to submit detailed experience history and a letter of recommendation with their application. The letter of recommendation may be from a steel fabricator, an IDC Certified Senior Detailer, or an NISD National Director.

Individuals may apply to take both the Bridge and the Structural/Miscellaneous test; however, separate applications must be submitted for each discipline. The open-book examination period can take as long as eight hours and is comprised of true/false and multiple choice questions, together with workout calculations. It is a test of ability, with the knowledge base supported by the current American Institute of Steel Construction (AISC) *Steel Construction Manual* and the *Detailing for Construction Manual*. The questions and problems are the type which steel detailers encounter in everyday work experience.

### Quality Procedures Program

The NISD Quality Procedures Program certifies that recognized quality assurance procedures are established so the end result will be quality detailing services available to the steel construction industry. This program provides a method to ensure uniform levels of procedures for detailing firms through a nationwide system for defining and recognizing quality assurance procedures, and a firm's commitment to quality.

Evaluation and on-site inspections are conducted by a registered professional engineer approved by the committee. The program consists of an initial audit, with triennial audits thereafter. The intervening years require a written self-audit based on the standard program checklist.

#### Procedures Checklist (partial)

- Are detail drawings checked by qualified personnel?
- Are jobs field checked?
- Are design changes and revisions to shop drawings reviewed by a responsible agent?
- What is your procedure for clarification of design problems?

#### Application

- A listing of representative projects completed in the last 10 years
- Letter of recommendation from two clients served in the past 12 months
- Resumes and job description of all principals and full or part-time employees
- Company policy statement
- Organizational chart and processing procedures

### Membership

Currently, the National Institute of Steel Detailing is a world-wide organization,

offering several categories for membership serving the individual steel detailer, detailing firms or corporations, associate and Member Emeritus memberships for businesses and individuals outside of the steel detailer's umbrella.

## The NISD Industry Standard

Derived from the consensus understanding of the steel detailing industry, the NISD *Industry Standard* is a document which exists to improve understanding and communication between members of the detailing community and construction industry as a whole. This document works to:

- Provide background and history of the steel detailing industry and the National Institute of Steel Detailing
- Identify and define the role of the steel detailing firm in the construction project
- Present the business, technical and professional values and practices of the detailing industry
- Provide an authoritative reference by defining terms, concepts and principles which have been adopted by the detailing industry

- Outline the rights and responsibilities of the steel detailing firm with respect to the client and the construction team
- Provide model documents and illustrations useful in establishing business and technical practices

This information resource defines the steel detailing industry's practices and procedures, and is an essential addition to reference libraries for steel construction managers, contractors, architects, structural engineers, as well as steel detailing firms.

In addition to the *Industry Standards*, the NISD also provides guidelines for successful presentation of steel design documents. This document is intended to support the AISC *Code of Standard Practice for Steel Buildings and Bridges*, which sets forth the minimum requirements for completeness in contract drawings. These guidelines are intended to impress upon all team members the importance and value of adhering to the AISC code.

## The NISD Difference

The exciting part for any steel fabricator and design team is to realize the benefits of utilizing steel detailers certified to NISD standards.

The steel fabricator and design team's work and worry is cut to a minimum as an otherwise problematic process is transformed into a workable project.

Adequate shop detail drawings minimize the approval processing time for designers. With the use of NISD certified detailers, reviewers may expect to see the following advantages, to name a few:

- Due diligence to the RFI process
- Approval submittal drawings which have been checked and are fabrication ready
- Shop detail and erection drawings which provide all the necessary information
- Efficient and industry-correct part and piece marking system
- Efficient and industry-correct revision history maintenance and reference

Since its founding in 1969, the NISD has been the only voice to speak on behalf of the steel detailing community. We continually work to maintain a high level of professional ethics and standards. NISD has a close working relationship with AISC and the Steel Erectors Association of America (SEAA), and endeavors to improve the steel detailing industry and its relationships with engineers, erectors and fabricators. ■

ADVERTISEMENT—For Advertiser Information, visit [www.STRUCTUREmag.org](http://www.STRUCTUREmag.org)

**SOFTWARE AND CONSULTING**  
**FLOOR VIBRATIONS**

**FLOORVIBE v2.20 New Release**

- Software to Analyze Floors for Annoying Vibrations
- Demo version at [www.FloorVibe.com](http://www.FloorVibe.com)
- Calculations follow AISC Design Guide 11 and SJI Technical Digest 5 2<sup>nd</sup> Edition Procedures
- Analyze for Walking and Rhythmic Activities
- Check floors supporting sensitive equipment
- Graphic displays of output
- Data bases included

**CONSULTING SERVICES**

- Expert consulting available for new construction and problem floors.

**Structural Engineers, Inc.**  
Radford, VA 540-731-3330 [tmmurray@floorvibe.com](mailto:tmmurray@floorvibe.com)

**struware**  
Structural Engineering Software

The easiest to use software for calculating wind, seismic, snow and other loadings for IBC, ASCE7, and all state codes based on these codes (\$195.00).

CMU or Tilt-up Concrete Walls with & without openings (\$75.00).

Floor Vibration for Steel Bms & Joists (\$75.00).

Concrete beams with/without torsion (\$45.00).

Demos at: [www.struware.com](http://www.struware.com)

**Wood Advisory Services, Inc.**  
"The Wood Experts"

Consultants in the Engineering Use of Wood & Wood-Base Composite Materials in Buildings & Structures


- Product Evaluation & Failure Analysis
- In-situ Evaluation of Wood Structures
- Wood Deterioration Assessment
- Mechanical & Physical Testing
- Non-Destructive Evaluation
- Expert Witness Services

[www.woodadvisory.com](http://www.woodadvisory.com)  
845-677-3091

**POST-TENSIONED BUILDINGS**  
Design and Construction

By Dr Bijan Aalami, SE  
Professor Emeritus,  
San Francisco  
State University

A must have book;  
in-depth; covers  
fundamentals,  
application  
and practice



[www.PT-Structures.com](http://www.PT-Structures.com)  
[www.ADAPTsoft.com](http://www.ADAPTsoft.com)

**CADRE Pro 6 for Windows**

Solves virtually any type of structure for internal loads, stresses, displacements, and natural modes. Easy to use modeling tools including import from CAD. Element types include many specialized beams and plates. Advanced features for stability, buckling, vibration, shock and seismic analyses.

**CADRE Analytic**  
Tel: 425-392-4309  
[www.cadreanalytic.com](http://www.cadreanalytic.com)



**245 Structural Design Spreadsheets**

[www.Engineering-International.com](http://www.Engineering-International.com)

- Multi-Story Tilt-Up Wall Design Based on ACI 318-11.
- Post-Tensioned Masonry Shear Wall Design Based on TMS 402-11.
- Design for Equipment Anchorage to Concrete Based on ASCE 7-10 Supplement 1.

Coupon for Package: \$120 off Password: ASCE 7-2010