



CHICAGO ARCHITECTURAL METALS
'THE BENCHMARK OF CRAFTSMANSHIP'

Building and Designing the Monumental Stair Case Study: Barney's Department Store, Chicago

According to Michael Stefania, Vice President of Design for Chicago Architectural Metals, fabricating a monumental stair is always a challenge. The fabrication and installation of the monumental stair going into the new Barney's on Oak Street was no exception and made all the more difficult because of a fast track time line that became a necessity after the design ran into a logistics complication. The stringer specified, a TS18"x18"x5/8" was not readily available and locating a rolling company capable of forming it into the required helix shape (needed for this spiral stair) was unsuccessful. Stefania suggested an alternative - 4 plates welded into a square; this was a feasible fabrication solution and was accepted by the client.

Schedules aside, there were other aspects to the project that upped the stair's technical ante. The structural specifications called for zero seismic distortion. In other words, no movement. Because of this, the structural members were made extra heavy, which in turn made mobilization and erection both complex and arduous.

To fabricate the 'tree' properly, Chicago Architectural Metals had to shop assemble all contour cut cladding on the structural frame and disassemble it again prior to applying the black oxide finish, which can be easily scratched.

Finally, to perform the installation of the monumental stair, the City of Chicago had to give the go-ahead to close down Oak Street, one of the busiest thoroughfares in Chicago's Gold Coast shopping district. A large 120 ton crane was used to hoist the stair between the existing structural steel rolled curtain wall supports that wrapped each floor of the building. The size and weight distribution of the stringers made this a "rigging" feat.

When the building is finished, the new stair will be a focal point anchoring the corner of Oak and Rush streets and visible through three stories of glass cladding the NW corner of the new Barneys department store.

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