**GETTING READY: Download**
CAST CONNEX CUSTOM CASTING SPECIFICATION (Casting Specification)
From www.castconnex.com/products/custom-components

**STEP 1: GEOMETRY**
Clearly define external geometry of cast steel node.

On structural drawings:
1. Define centerline geometry with workpoints, and dimension their locations using vertical and horizontal dimensions and/or with angles.
2. Dimension key structural features* including size of connecting members, length of cast steel arms, shape and thickness of cast base plate, and other structural features.

On architectural drawings:
1. Dimension key architectural features* including any curvature or radii that define the form of the casting.
2. Contact a Cast Connex representative to help identify key architectural and structural features prior to issuing drawings.

**STEP 2: LOADING**
On structural drawings, provide governing axial, shear and moments at the workpoint locations both in- and out-of-plane using:
1. Tabular form, or
2. Callouts on the detail.

Note: these loads are used to price the cast steel node. Once the project is awarded, Cast Connex may request equilibrated load combinations to complete structural analysis of cast steel node; see Casting Specification for delegated design of steel castings.

**STEP 3: CONNECTION**
Structural Engineer of Record: design or delegate design to the connection engineer the connections between the casting and adjacent structural elements. When relevant:
1. Design or delegate connections between casting and adjacent concrete elements.*
2. Provide diameter and location of anchor rods within the cast base plate feature.
3. Indicate welded joints where applicable.
4. Include any architecturally exposed structural steel (AESS) requirements; see Casting Specification for weld instructions for AESS craftsmanship.
5. Design or delegate other connections including, but not limited to: bolted connections, and connections to wood products.*

*Contact a Cast Connex representative to coordinate specific detail requirements.

**STEP 4: SPECIFICATION**
Call out steel casting on drawings and include casting specification language within contract specification.

1. Call out steel casting on the detail with:
   - CAST CONNEX CUSTOM CAST STEEL NODE, REFER TO SPECIFICATIONS
   - CAST CONNEX CUSTOM CAST STEEL NODE OR APPROVED EQUIVALENT, REFER TO SPECIFICATIONS

For public projects, callout steel casting on the detail with:
1. CAST CONNEX CUSTOM CAST STEEL NODE or APPROVED EQUIVALENT, REFER TO SPECIFICATIONS

Include Casting Specification within Division 05 of the contract specification and coordinate product specific requirements with Cast Connex. Specification includes:

- Performance-Based Specification Language
- Visual Inspection Criteria for Surface Quality
- Coating & Finishing Requirements
- Visual requirements of Welded Connections

*Contact a Cast Connex representative to determine appropriate visual inspection criteria.

- Delegated design of steel castings by Cast Connex in project specifications.
- Coordinate surface quality expectations with Cast Connex to determine appropriate visual inspection criteria.

**HOW TO SPECIFY: CUSTOM CASTINGS**
Multi-Dimensional / Tree-Node Column Casting Example

**DETAIL A: CAST STEEL TREE NODE: ISOMETRIC VIEW**

**DETAIL B: PLAN VIEW**

**DETAIL C: SECTION**