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About TOBIN Consulting Engineers...

**Tradition**

Founded by Patrick J. Tobin in 1952, our company is based nationwide with offices in Galway, Dublin, Castlebar and Shannon. We also have an office in Westminster in central London. Today, we operate as a complete multi-disciplinary engineering consultancy firm, employing over 100 professionals throughout our offices.

Since our inception, we have continued to work closely with local authorities, government departments, state bodies, architects, private developers, building contractors and planning consultants to provide innovative solutions to a wide range of challenging and complex engineering and building projects in both Ireland and the UK.
TOBIN Consulting Engineers operate a completely integrated business management system (BMS) which is based on the most up to date versions of ISO 9001 (Quality Management System), ISO 14001 (Environment Management System) and OHSAS 18001 (Safety Management System).

ISO 9001:2015 Clause 6 Planning Risk Management

We have introduced a Risk Management process that identifies, records, scores, evaluates and monitors risk within the organisation/business and also within our projects. The scoring system helps us prioritise high risk issues. Our Risk register is reviewed at regular intervals to ensure highest priority items are being worked on. Its a live database.

We have assigned responsibility for Risk Management to a Director within the organisation.
Changes regarding documented information detailed in ISO 9001: 2015 clause 7.5

These new requirements coincided with TOBIN planned document changes. We were also implementing a lean approach to our documents.

Using lean, we have started to think all of our activities as processes, with defined inputs and expected outputs. (This language is easily understood in an engineering environment). We have also generated a visual process flow for all processes, with responsibilities and references and internal audit checks included.

These process flowcharts, when complete, will make up our NEW quality manual.
Example of a process flowchart

**BIM Level 2 Project Workflow**

**PROCESS STEPS**

1. Contract awarded. Design Model and IF design drawings are issued by the client/lead architect.

2. BIM kick-off meeting is held where the project BIM manager and management team review the BEP. All required information is requested by the BIM Manager and the submittals issued to the project team.

3. a&b. The project team reviews the design information and plans the design process focused on Tobin’s Core Values of Innovation, Sustainability and Health & Safety. If there are issues with the design, Tobin needs to work with the design team in order to rectify any problems.

4. The design team begins preparing the concept design and detailing the concept model. All models are uploaded to the CDE and appended into the federated model and clash detected weekly. The CDA models are appended along with the MEP models to produce a federated model.

5. & 7. A collaboration meeting is held between all disciplines. If there is a clash, the affected discipline remeets. This will be adjudicated within the collaboration meeting.

6. & 8a. Once the model has been agreed upon it is reviewed and approved by the Tobin Lead Designer and BIM Team Lead. The Lead Designer performs a check in accordance with Tobin’s Core Values, ensuring that the design is innovative, sustainable and focuses on Health & Safety. The BIM Lead performs a detailed model validation review in accordance with Tobin’s BIM Standards. If the model complies with the BEP, if not approved then the affected discipline must remediate their model depending on the design team need. Upon approval a record model is locked and uploaded to Union Square.

9. The design team then begins preparing the developed sketch design. All models are uploaded to the CDE and appended into the federated model and clash detected weekly. The CDA models are appended along with the MEP models to produce a federated model.

10. & 11. A collaboration meeting is held between all disciplines. If there is a clash, the affected discipline remeets. This will be adjudicated within the collaboration meeting.

12. & 12a. Once the model has been agreed upon it is reviewed and approved by the Tobin Lead Designer and BIM Team Lead as per Step 8 & 8a. Upon approval a record model is locked and uploaded to Union Square.

13. The design team can then begin preparing the developed detail design. All models are uploaded to the CDE and appended into the federated model and clash detected weekly. The CDA models are appended along with the MEP models to produce a federated model.

14. & 15. A collaboration meeting is held between all disciplines. If there is a clash, the affected discipline remeets. This will be adjudicated within the collaboration meeting.

16. & 16a. Once the model has been agreed upon it is reviewed and approved by the Tobin Lead Designer and BIM Team Lead as per Step 8 & 8a. Upon approval a record model is locked and uploaded to Union Square.

17. Once all models are agreed upon and deemed to be clash free by the...
ISO 9001:2015 Clause 10 Improvement

Lessons Learned (Project Based)
CAPA (Business or Project, we don’t meet a requirement)
Business Change (significant change in the organisation)

Lesson Learned Philosophy
Lessons can be learned from every project
Lessons are positive and have to be communicated and available to all staff.
Lessons = knowledge and are part of the “company memory“

Business Change database
Capture all the significant changes within the company. Require a budget, and resources to implement. A monitoring team oversees the implementation.