# **Michael Earley**



#### **Michael Earley**

Dip Arch Technology BSc Computer Science (Hons) MRIAI (Tech), Member Irish Computer Society

#### Associate at Scott Tallon Walker Architects

Responsible for Building Information Modelling and Software Systems

# Scott Tallon Walker

Graduate of Dublin School of Architecture (DIT) and Trinity College Dublin

Lecture on BIM Execution Planning on MSc in Construction Informatics.

Member of RIAI BIM subcommittee Member RIAI ATC Committee Member Irish Computer Society



Trinity College Dublin Coláiste na Tríonóide, Baile Átha Cliath The University of Dublin



#### Scott Tallon Walker Architects - BIM (UK)



Nuffield Cardiac Care Centre



Scott Tallon Walker Architects

### Scott Tallon Walker Architects - BIM (Northern Ireland)



#### Scott Tallon Walker Architects - BIM (Ireland)



Scott Tallon Walker Architects

## **Trinity Business School – BIM for Education**



# **Trinity Business School – Project Team**

**Design Team** 

Architects: Scott Tallon Walker Architects Structural/ Civil Engineer: Arup Façade Engineer: Arup Mechanical & Electrical Engineer: IN2

Project Manager: Turner & Townsend Quantity Surveyor: Turner & Townsend PSDP: Turner & Townsend Fire Engineer: Michael Slattery and Associates Acoustics: AWN Consulting Sustainability: IN2 Planning Consultant: Tom Philips and Associates Conservation Architect: David Slattery Conservation Architects BCAR Consultant: Procert Landscape Architect: Mitchell & Associates Catering Design: QA Design

#### **Construction Team**

Enabling Works: BAM Main Contractor: JJ Rhatigan and Company Mechanical Services Contractor: T Bourke Electrical Services Contractor: Designer Group **3IM Authors** 

# **Trinity Business School – The Building**

Trinity College Dublin is ranked 88<sup>th</sup> in the world, 22<sup>nd</sup> in Europe, combining advanced research and scholarship with an educational environment that values the whole student experience.

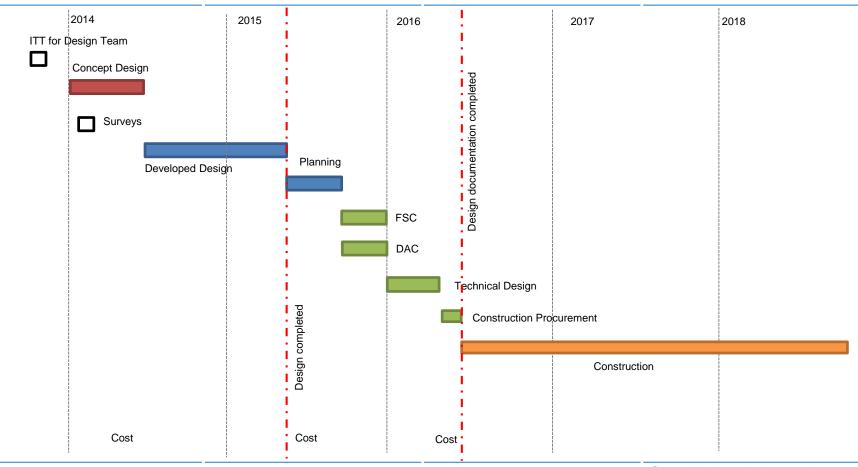
The Trinity Business School is a strategic part of the future of Trinity College – provide graduates with ability to **manage change consciously, carefully with insight and discipline**.

#### Accommodation:

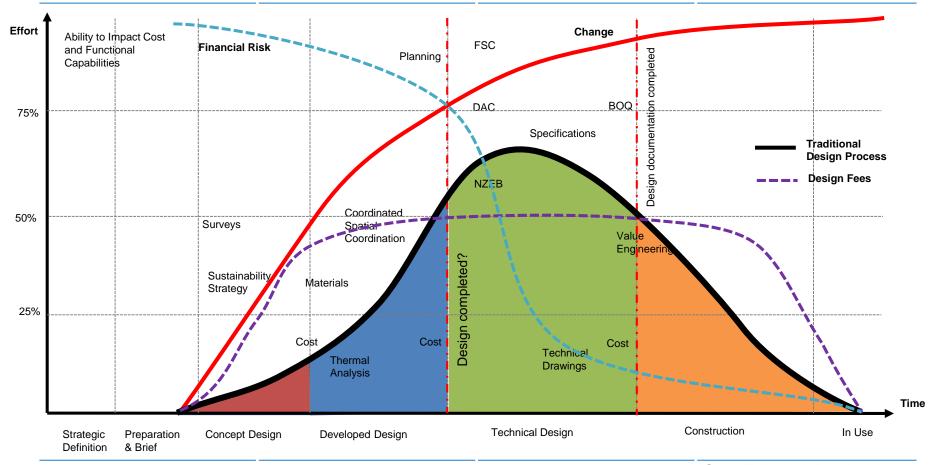
The School of Business Innovation and Entrepreneurship Hub Auditorium Restaurants Pearse Street Terrace Refurbishment (Protected Structures)

Key Statistics Site Area: 5,200 m<sup>2</sup> Gross Internal Area: 14,155 m<sup>2</sup> including protected structures Contract / Delivery Type: Irish Government Public Works Contract - PWC-CF1 v2.0 Jan 2016. BIM: Level 2 BIM in accordance with PAS1192-2:2013 Sustainability: NZEB, BER A2

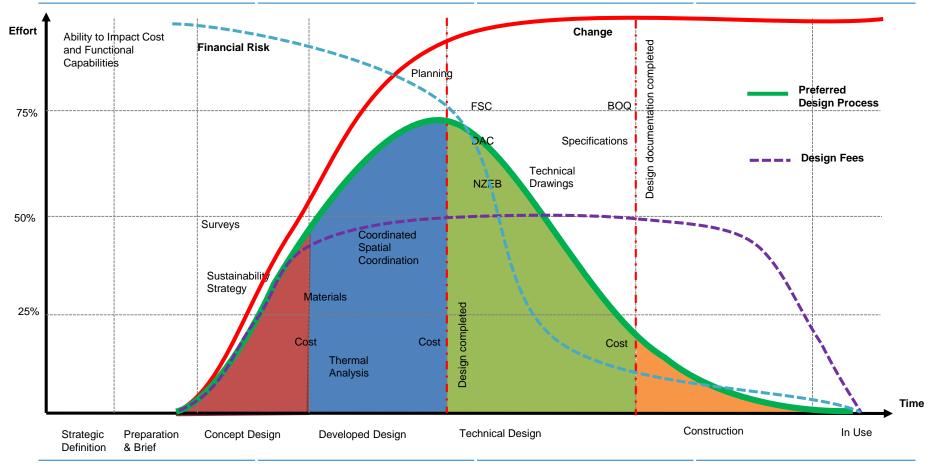
## **Trinity Business School – Programme**



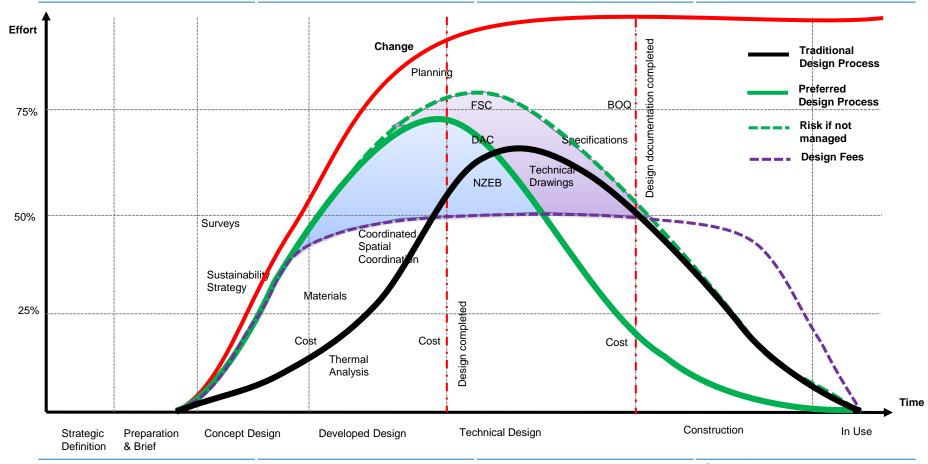
#### **BIM – Change – Traditional Design Process**



#### **BIM – Change – PWC Contract**



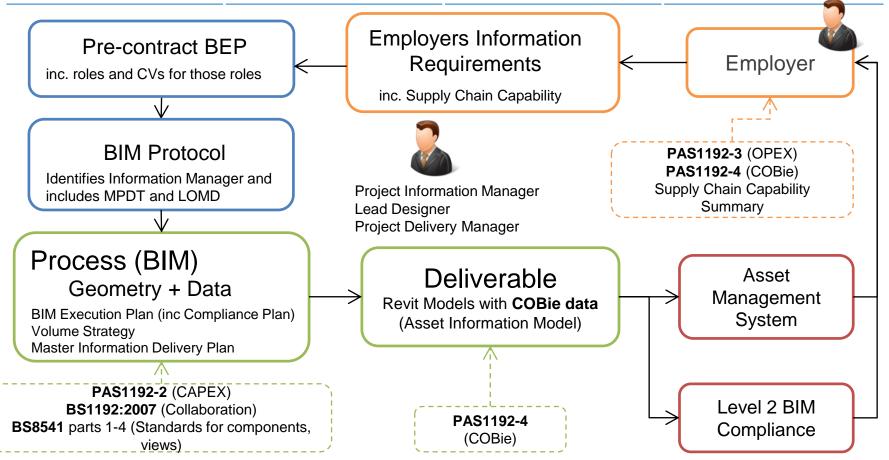
#### BIM – Change – Comparison of Traditional / PWC (Risk)



# **BIM – Lessons Learned**

- 1. Client brief needs to be more prescriptive about design information (EIR).
- 2. Contract documents need to include requirement for BIM (BIM Protocol / MPDT).
- **3.** Information Manager required to ensure BIM documentation is in place and adhered to (BIM Execution Plan).
- 4. All participants need to understand the **supply chain requirements** for design information (Digital Plan of Work / LOD / LOI).
- 5. Designers need to exchange **better quality** information (BIM Execution Plan / Digital Plan of Work / LOD / LOI).
- 6. Designers need to exchange design information **earlier**.
- 7. Design exchanges need to be more **frequent**.
- 8. Clash detection needs to commence sooner with information that is suitable for purpose.
- 9. Majority of **design changes** need to completed before Technical Design commences otherwise risk of cost and programme overruns.
- 10. All design information should be derived from models there must be **confidence in the quality of information in models**.

# **BIM Level 2 - Workflow**



## BIM Level 2 - Standards (http://bim-level2.org/en/standards/)

#### **BIM LEVEL 2** Home About BIM Level 2 Standards Guidance Events Tools FAQs Glossarv BS 1192:2007+A2:2016 PAS 1192-3:2014 Health & BRITISH STANDARD CAPEX COBie Safety **Collaborative production** of architectural, engineering and construction information -PAS 1192-6:2018 **Code of practice** Specification for collaborative sharing R'S 01,100.30, 25,340.10 and use of structured Health and Safety information using BIM **BSI Standards Publication** Collaborative proc of information Part 4: Fulfilling emple exchange requiremen Code of practice BS CPNI Security Collaboration OPEX bsi. bsi. bsi. COSTAIN making excellence a habit?

#### **BIM Level 2 – Best Practice**





## **BIM Level 2 – RIAI**



#### Working with an Architect

Home » Working with an Architect » Public & Commercial Projects » Building Information Modelling (BIM)

#### Building Information Modelling (BIM)

#### RIAI Employers Information Requirements Template (EIR)

The Employers Information Requirements (EIR) template and guidance document are intended to support Employers undertaking BIM Level 2 in accordance with PAS 1192-2:2013. The EIR should be incorporated into the tender documentation, to enable suppliers to produce their Pre-contract BIM Execution Plan (BEP) upon which their proposed approach, capability and capacity can be evaluated prior to contract award. The EIR is also a key document with regards to communicating information requirements as well as establishing information management requirements and will act as a good basis from which to review the contents of the bidder's BIM Execution Planning, confirming its completeness.

The RIAI practice sub-committee for BIM have produce a draft blank template, as well as a 2nd version which contains some suggested text and guidance notes. RIAI members can use these to help their clients define the requirement on project where BIM is being used.

Download RIAI Employers Information Requirements Template P1 2 .Word.doc 62KB

Download RIAI Employers Information Guidance Template P1 2. PDF File

#### Working with an Architect

Working with an architect - Your Home

**Extending Your Home** 

Improving Energy Efficiency

**Building a New Home** 

**Buying a New Home** 

**Top Tips from Architects** 

- Public & Commercial projects
- ⊢→ Finding an RIAI Practice
- L RIAI Architect Services
- L→ Appointing an architect

Michael Earley – Scott Tallon Walker Architects Greg Power – Trinity College Dublin Liam Farrelly – Scott Tallon Walker Architects Adrian Ryan – Arup Celine O'Connor – JJ Rhatigan and Company

