Qualification Specification for:

OCN NI Level 4 Award in Collaboration in Building Information Modelling
➢ **Qualification No: 603/3837/4**

OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management
➢ **Qualification No: 603/3838/6**

Qualification Regulation Information

OCN NI Level 4 Award in Collaboration in Building Information Modelling
Qualification Number: 603/3837/4

OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management
Qualification Number: 603/3838/6

Operational start date: 01 December 2018
Operational end date: 01 December 2028
Certification end date: 01 December 2032

Qualification operational start and end dates indicate the lifecycle of a regulated qualification. The operational end date is the last date by which learners can be registered on a qualification and the certification end date is the last date by which learners can claim their certificate.

All OCN NI regulated qualifications are published to the Register of Regulated Qualifications (**http://register.ofqual.gov.uk/**). This site shows the qualifications and awarding organisations regulated by CCEA Regulation and Ofqual.

OCN NI Contact Details

Open College Network Northern Ireland (OCN NI)
Sirius House
10 Heron Road
Belfast
BT3 9LE

Phone: 028 90463990
Web: **www.ocnni.org.uk**

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

2

Foreword

This document explains OCN NI's requirements for the delivery and assessment of the following regulated qualifications:

→ **OCN NI Level 4 Award in Collaboration in Building Information Modelling**
→ **OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management**

This specification sets out:

- Qualification features
- Centre requirements for delivering and assessing the qualification
- The structure and content of the qualification
- Unit details
- Assessment requirements for the qualification
- OCN NI's quality assurance arrangements for the qualification
- Administration

OCN NI will notify centres in writing of any major changes to this specification. We will also publish changes on our website at **www.ocnni.org.uk**

This specification is provided online, so the version available on our website is the most up to date publication. It is important to note that copies of the specification that have been downloaded and printed may be different from this authoritative online version.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

3

Contents

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

4

About Regulation

OCN NI

Open College Network Northern Ireland (OCN NI) is a regulated Awarding Organisation based in Northern Ireland. OCN NI is regulated by CCEA Regulation to develop and award professional and technical (vocational) qualifications from Entry Level up to and including Level 5 across all sector areas. In addition, OCN NI is regulated by Ofqual to award similar qualification types in England.

The Regulated Qualifications Framework: an overview

The Regulated Qualifications Framework (RQF) was introduced on 1st October 2015: the RQF provides a single framework for all regulated qualifications.

Qualification Level
The level indicates the difficulty and complexity of the knowledge and skills associated with any qualification. There are eight levels (Levels 1-8) supported by three 'entry' levels (Entry 1-3).

Qualification Size
Size refers to the estimated total amount of time it could typically take to study and be assessed for a qualification. Size is expressed in terms of Total Qualification Time (TQT), and the part of that time typically spent being taught or supervised, rather than studying alone, is known as Guided Learning Hours (GLH).

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

5

Qualification Features

Sector Subject Area
5.2   Building and Construction

Qualifications' Aim
The OCN NI Level 4 Award in Collaboration in Building Information Modelling qualification has been designed to provide the learner with the knowledge and skills to work collaboratively with others on building information modelling projects.

The OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management qualification has been designed to provide the learner with the knowledge and skills to work collaboratively with others on building information modelling projects. In addition, the learner will gain knowledge and skills relating to the management of Building Information Modelling/Management documentation and information.

Qualification Objectives (Level 4 Award)
The objectives of this qualification are to enable learners to:

→   be able to collaboratively create and utilise a Concept Project Information Model (PIM)
→   be able to collaboratively create and utilise a Scheme Design PIM
→   be able to collaboratively create and utilise a Technical Design PIM
→   be able to collaboratively create a fabrication model for federation with PIM

Qualification Objectives (Level 4 Certificate)
The objectives of this qualification are to enable learners to:

→   be able to collaboratively create and utilise a Concept Project Information Model (PIM)
→   be able to collaboratively create and utilise a Scheme Design PIM
→   be able to collaboratively create and utilise a Technical Design PIM
→   be able to collaboratively create a fabrication model for federation with PIM
→   understand the roles and responsibilities of an information manager
→   understand how to apply standards, methods and procedures in a BIM project
→   understand how set up a Common Data Environment
→   understand the use of documents associated with a BIM project

Grading
Grading for these qualifications is pass/fail.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

6

Qualification Target Group

The qualifications are targeted at learners who have an interest and are currently working in the architectural, engineering or construction sectors.

Progression Opportunities

The OCN NI Level 4 Award in Collaboration in Building Information Modelling will enable the learner to progress to the OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management. The OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management will enable the learner to progress to higher level qualifications in Building Information Modelling and related areas. Both qualifications will also enhance employment opportunities.

Qualification Support

A Qualification Support pack is available for OCN NI centres within the login area of the OCN NI website (https://www.ocnni.org.uk/my-account/), which includes additional support for teachers, eg planning and assessment templates, guides to best practice, etc.

Entry Requirements

There are no specific entry requirements for these qualifications, however an understanding and appreciation of the construction sector would be beneficial including construction techniques, reading construction plans/drawings, and project management and delivery. Learners must be at least 18 years of age to take these qualifications.

Delivery Languages

These qualifications are available in English only at this time. If you wish to offer the qualifications in Welsh or Irish (Gaeilge) then please contact OCN NI who will review demand and provide as appropriate.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

7

Centre Requirements for Delivering the Qualification

Centre Recognition and Qualification Approval
New and existing OCN NI recognised centres must apply for and be granted approval to deliver the qualification prior to the commencement of delivery.

Centre Staffing
Centres are required to have the following roles in place as a minimum, although a member of staff may hold more than one role*:

- Centre contact
- Programme Co-ordinator
- Tutor
- Assessor
- Internal Verifier

*Note: A person cannot be an internal verifier for their own assessments.

Tutors
Tutors delivering the qualifications should be occupationally competent at a higher level than the qualification and have a minimum of one year's relevant experience in the areas of construction and BIM.

Assessors
The qualifications are assessed within the centre and are subject to OCN NI's quality assurance processes. Units are achieved through internally set, internally assessed, and internally verified evidence.

Assessors must:
- be occupationally competent at a higher level than the qualification
- have a minimum of one year's experience in the area they are assessing
- have direct or related relevant experience in assessment
- assess all assessment tasks and activities

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

8

Internal Verification

OCN NI qualifications must be scrutinised through the centre's internal quality assurance processes as part of the recognised centre agreement with OCN NI. The centre must appoint an experienced and trained centre internal verifier whose responsibility is to act as the internal quality monitor for the verification of the delivery and assessment of the qualifications.

The centre must agree a working model for internal verification with OCN NI prior to delivery of the qualifications.

Internal Verifiers must:

- have at least one year's occupational experience in the areas they are internally verifying
- attend OCN NI's internal verifier training

Internal verifiers are required to:
- support tutors and assessors
- sample assessments according to the centre's sampling strategy
- ensure tasks are appropriate to the level being assessed
- maintain up-to-date records supporting the verification of assessment and learner achievement

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

9

Structure and Content

OCN NI level 4 Award in Collaboration in Building Information Modelling

In order to achieve the Level 4 Award learners must complete the one unit in the table below for a total of 12 credits.

Total Qualification Time (TQT) for this qualification: 120 hours
Guided Learning Hours (GLH) for this qualification: 54 hours

Unit Reference Number	OCN NI Unit Code	Unit Title	TQT	Credit Value	Level
A/617/3402	CBE365	Collaboration in Building Information Modelling	120	12	Four

OCN NI level 4 Certificate in Collaboration in Building Information Modelling/ Management

In order to achieve the Level 4 Certificate learners must complete both units below for a total of 20 credits.

Total Qualification Time (TQT) for this qualification: 200 hours
Guided Learning Hours (GLH) for this qualification: 90 hours

Unit Reference Number	OCN NI Unit Code	Unit Title	TQT	Credit Value	Level
A/617/3402	CBE365	Collaboration in Building Information Modelling	120	12	Four
F/617/3403	CBE366	Collaboration in Building Information Management	80	8	Four

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

10

Unit Details

Title	Collaboration in Building Information Modelling
Level	Four
Credit Value	12
Guided Learning Hours (GLH)	54
OCN NI Unit Code	CBE365
Unit Reference No	A/617/3402

Unit purpose and aim(s): This unit will enable the learner to understand how to create and utilise a Concept Project Information Model (PIM), collaboratively create and utilise a Scheme Design PIM and Technical Design PIM create a fabrication model for federation with PIM.

Learning Outcomes	Assessment Criteria
1. Be able to create and utilise a Concept Project Information Model (PIM).	1.1. Create and utilise a Concept PIM to include: a) a concept design model b) a concept design visualisation c) a concept design animation
2. Be able to collaboratively create and utilise a Scheme Design PIM.	2.1. Create a federated Scheme Design PIM comprising of Architectural, Structural and Mechanical, Electrical, and Plumbing (MEP) volumes complaint with a file naming and level naming convention. 2.2. Demonstrate how a PIM could be used to collaboratively generate costings as part of a 5D BIM model. 2.3. Evaluate the use of a collaborative PIM for energy analysis at the Scheme Design stage. 2.4. Create a collaborative Scheme Design visualisation and walkthrough animation using a PIM.
3. Be able to collaboratively create and utilise a Technical Design PIM.	3.1. Create a federated Technical Design PIM comprising of Architectural, Structural and MEP volumes complaint with an Object naming convention. 3.2. Demonstrate how a compliance check could be carried out collaboratively on a PIM. 3.3. Produce a collaborative number of 3d and 2d deliverables utilising a PIM to answer a set of Plain Language Questions. 3.4. Create a collaborative clash detection report using a PIM. 3.5. Create a collaborative Construction Sequence using a PIM.
4. Be able to collaboratively create a fabrication model for federation with PIM.	4.1. Create and populate Construction Operations Building Information Exchange (COBie) parameters in a model. 4.2. Create a fabrication model to form a collaborative volume within a PIM. 4.3. Evaluate how the accuracy of an As Built Model may be validated and verified. 4.4. Summarise the types of information required to deliver an Asset Information Model (AIM).

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

11

Assessment Guidance		
The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.		
Assessment Method	**Definition**	**Possible Content**
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

12

Title	Collaboration in Building Information Management
Level	Four
Credit Value	8
Guided Learning Hours (GLH)	36
OCN NI Unit Code	CBE366
Unit Reference No	F/617/3403

Unit purpose and aim(s): This unit will enable the learner to understand the roles and responsibilities of an information manager, how to apply standards, methods and procedures in a Building Information Management (BIM), set up a project a Common Data Environment (CDE) and the use of documents associated with a BIM project.

Learning Outcomes	Assessment Criteria
1. Understand the roles and responsibilities of an information manager.	1.1. Define the scope of services for an information manager. 1.2. Explain the function of a CDE. 1.3. Summarise the roles and responsibilities of an information manager within a BIM project.
2. Understand how to apply standards, methods and procedures in a BIM project.	2.1. Demonstrate the application of suitable naming conventions in a BIM project. 2.2. Apply suitable classification standards to BIM objects/elements within a model. 2.3. Apply industry standards to define levels of detail and information to the following: a) Model Production Delivery Table 2.4. Create the following plans: a) Task Information Delivery Plan (TIDP) b) Master Information Delivery Plan (MIDP)
3. Understand how to set up a Common Data Environment (CDE).	3.1. Analyse how permission groups relate to a CDE. 3.2. Create a workflow for a CDE. 3.3. Create an Information Delivery Report utilising a CDE. 3.4. Critically evaluate the benefits of Metadata in a CDE. 3.5. Demonstrate the use of Status Codes as part of a workflow in a CDE.
4. Understand the use of documents associated with a BIM project.	4.1. Analyse how the 'BIM Protocol' can be applied within a standard construction contract. 4.2. Populate a template for the following: a) Employer's Information Requirement (EIR) b) Pre-Contract BIM Execution Plan c) Post-Contract BIM Execution Plan 4.3. Evaluate a Supply Chain's capability to deliver BIM Level 2.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

13

Assessment Guidance		
The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.		
Assessment Method	**Definition**	**Possible Content**
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

14

Quality Assurance of Centre Performance

External Verification

All OCN NI recognised centres are subject to External Verification. External verification visits and monitoring activities will be conducted annually to confirm continued compliance with the conditions of recognition, review the centre's risk rating for the qualifications and to assure OCN NI of the maintenance of the integrity of the qualifications.

The External Verifier will review the delivery and assessment of the qualifications. This will include the review of a sample of assessment evidence and evidence of the internal verification of assessment and assessment decisions. This will form the basis of the EV report and will inform OCN NI's annual assessment of centre compliance and risk. The External Verifier is appointed by OCN NI.

Standardisation

As a process, standardisation is designed to ensure consistency and promote good practice in understanding and application of standards. Standardisation events:

- make qualified statements about the level of consistency in assessment across centres delivering a qualification
- make statements on the standard of evidence that is required to meet the assessment criteria for units in a qualification
- make recommendations on assessment practice
- produce advice and guidance for the assessment of units
- identify good practice in assessment and internal verification

Centres offering units of an OCN NI qualification must attend and contribute assessment materials and learner evidence for standardisation events if requested.

OCN NI will notify centres of the nature of sample evidence required for standardisation events (this will include assessment materials, learner evidence and relevant assessor and internal verifier documentation). OCN NI will make standardisation summary reports available and correspond directly with centres regarding event outcomes.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

15

Administration

Registration

A centre must register learners within 20 working days of commencement of a qualification.

Certification

Certificates will be issued to centres within 20 working days of receipt of correctly completed results marksheets. It is the responsibility of the centre to ensure that certificates received from OCN NI are held securely and distributed to learners promptly and securely.

Charges

OCN NI publishes all up to date qualification fees in its Fees and Invoicing Policy document. Further information can be found on the centre login area of the OCN NI website.

Equality, Fairness and Inclusion

OCN NI has considered the requirements of equalities legislation in developing the specification for these qualifications. For further information and guidance relating to access to fair assessment and the OCN NI Reasonable Adjustments and Special Considerations policies, centres should refer to the OCN NI website.

Retention of Evidence

OCN NI has published guidance for centres on the retention of evidence. Details are provided in the OCN NI Centre Handbook and can be accessed via the OCN NI website.

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

16

OCN NI Level 4 Award in Building Information Modelling
Qualification Number: 603/3837/4

OCN NI Level 4 Certificate in Building Information Modelling/Management
Qualification Number: 603/3838/6

Operational start date: 01 December 2018
Operational end date: 01 December 2028
Certification end date: 01 December 2032

Open College Network Northern Ireland (OCN NI)
Sirius House
10 Heron Road
Belfast
BT3 9LE

Phone: 028 90463990
Web: www.ocnni.org.uk

OCN NI Level 4 Award in Collaboration in Building Information Modelling Qualification No. 603/3837/4
OCN NI Level 4 Certificate in Collaboration in Building Information Modelling/Management Qualification No. 603/3838/6
Updated: 10 December 2021 v1.1

17