

COMMUNITY INFRASTRUCTURE BENCHMARK DATABASE

HOW TO USE GUIDANCE NOTE February 2017

CONTENTS

1. OVERVIEW	2
2. BENCHMARK DATABASE.....	3
3. DATABASE MANAGEMENT.....	8
4. APPENDIX A - DEFINITION LIST	13
5. APPENDIX B – EXAMPLE DATASETS	14

1. OVERVIEW

The community infrastructure benchmark database facilitates the sharing of best practice and construction related project data amongst Public Sector organisations within Scotland. This guidance note outlines how a user can access project information and submit data to the website. This database contains project data for schools, healthcare and public sector offices across a range of frameworks. The database captures the following data for completed projects: -

- Detailed construction costs
- Detailed design summary
- Design benchmarks
- Plans and elevations of the project
- Community Benefits delivered
- Supply Chain Members
- Images

The benchmark database is supported by a robust data collection process to ensure data is credible, accessible and easily understood. The database offers an easy to use search function to locate projects and also provides pre-defined reporting templates. In addition, the database automatically adjusts project data for inflation to offer like for like analysis.

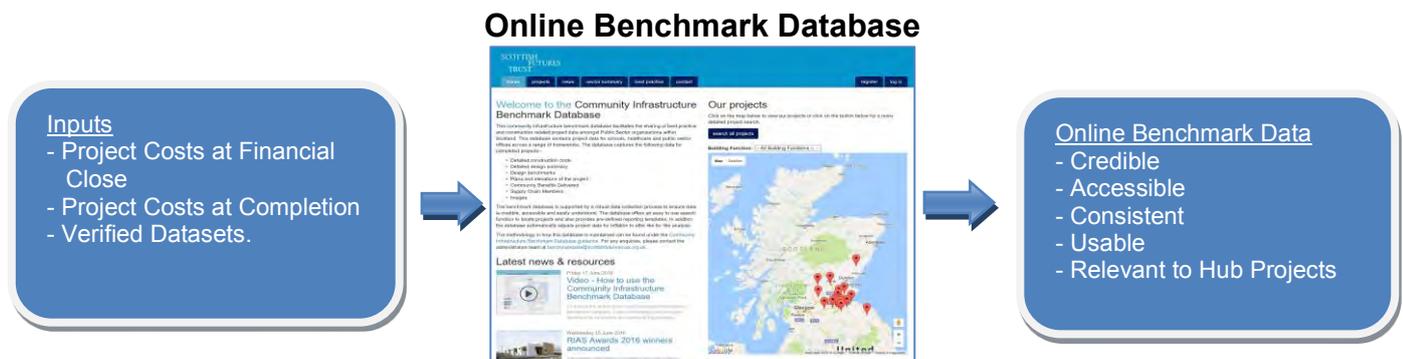


Figure 1: - Overview of Database Objectives

The database is open access to all public sector authorities and restricted access to private sector organisations. For framework delivery partners (HubCo, framework managers) these organisations will have access to their delivered projects.

When developing a new project, the public sector can share relevant benchmark project data with any member of the project team to support the development of a new project.

When utilising the benchmark data, the user must ensure they seek appropriate advice and expertise.

All enquiries relating to this methodology should be directed to the administration team at benchmarkdata@scottishfuturestrust.org.uk.

2. BENCHMARK DATABASE

2.1. INTRODUCTION

The development of the database has been carefully designed to ensure any data is robust and relevant across all sectors. When using benchmark data, the key objective is to understand fully the benchmark project you are comparing against. Therefore, the database provides not only cost data but design parameters, abnormal analysis and community benefits achieved.

2.2. HOME PAGE

The screenshot shows the front page of the Scottish Futures Trust Community Infrastructure Benchmark Database. At the top, there is a navigation bar with the following items: 'home' (highlighted with a red box), 'projects', 'news', 'sector summary', 'best practice', 'contact', 'Welcome Colin Millar (General Member)', 'log off', and 'submit data'. Three orange callout boxes labeled 'Sector Summary', 'Best Practice Guidance', and 'Submit Data' have arrows pointing to their respective menu items. Below the navigation bar, the main content area is divided into several sections: 'Welcome to the Community Infrastructure Benchmark Database' with a 'Project Search' callout box; 'Our projects' featuring a map of Scotland with red location pins and an 'Interactive Map' callout box; 'Latest news & resources' with three news items, the first of which has a 'News' callout box; and 'Quotes' with a quote from a public body. The 'Project Search' callout box points to the search bar and the list of data fields provided for completed projects. The 'Interactive Map' callout box points to the map of Scotland showing project locations.

Figure 2: Database Front Page

2.3. PROJECT SEARCH

The project search page provides the user with a three step process to locate and then print the information they require. Projects can be located through the interactive map on the home page or alternatively a detailed search can be undertaken by clicking on the project tab. This will provide the users with a detailed search function to locate the project information they require. There are three steps to locating and generating a project benchmark report. They include: -

Step 1 – Search for specific project based on a variety of search criteria

Step 2 – Select the date upon which all project costs should be based.

Step 3 – Select the report type you wish the projects to be included within.

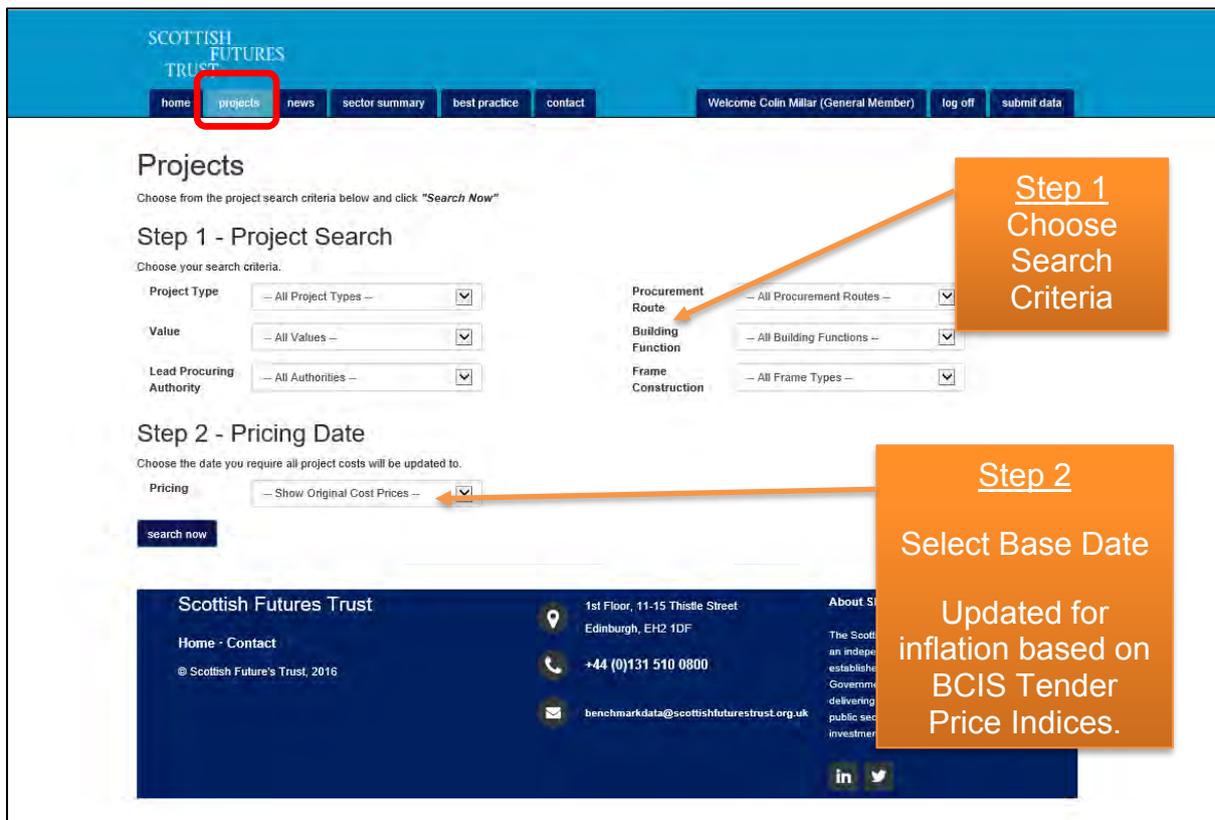
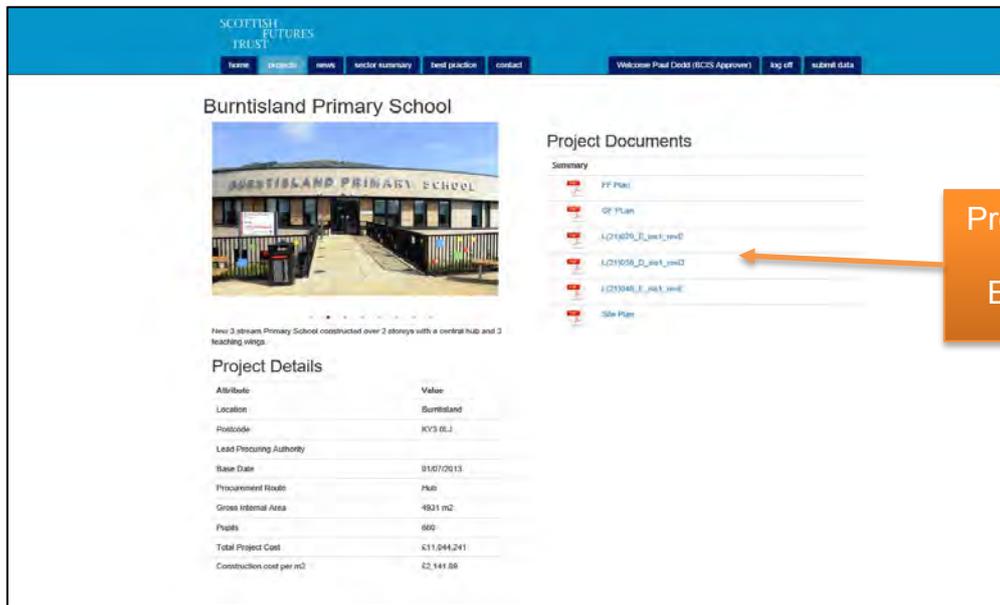


Figure 3: Project Search Steps 1 & 2

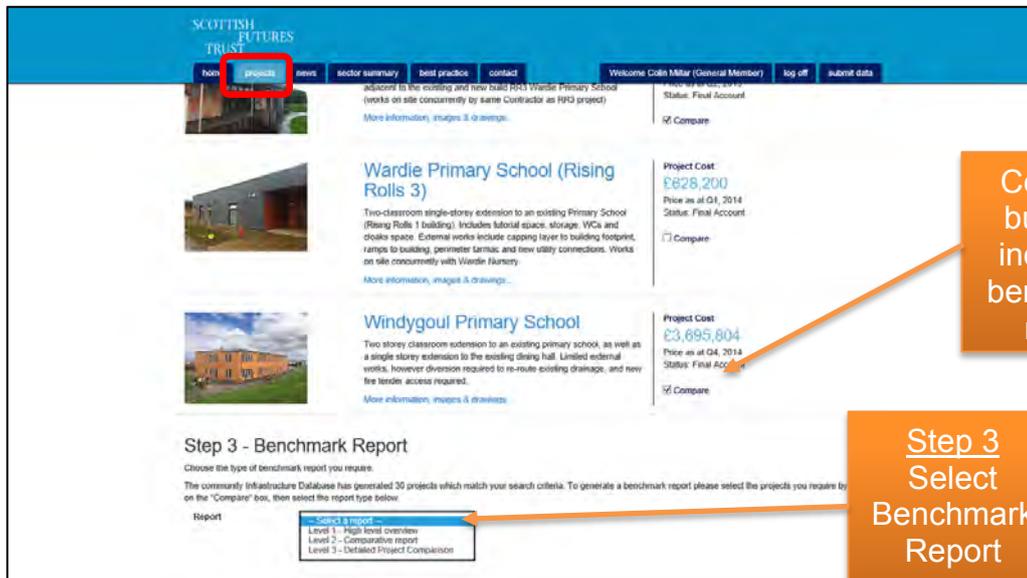
Upon completing steps 1 and 2 of the search criteria, the user will be presented with a list of relevant projects. The user then selects the projects they wish to have included within a benchmark report. When deciding on which projects to include the user can click on each project and more information, drawings and images will be provided. (Refer to Figure 4)



Project Plans and Elevations

Figure 4: Project Information Page

The user selects all projects they wish to be included within a benchmark report by clicking on the “Compare” button. Once all required projects have been selected, the user then moves to Step 3. This allows the users to select a benchmark report which they wish to have generated.



Compare button to include in benchmark report

Step 3 Select Benchmark Report

Figure 5: Project Search Steps 3

The database offers three ways in which the user can generate the information they require. The benchmark reports differ in terms of the detail provided and are summarised as follows: -

- **Level 1** – High level benchmark summary for the selected projects
- **Level 2** – Elemental cost summary for all the selected projects.
- **Level 3** – Fully detailed project data for all the selected projects.

Refer to appendix B for a summary of the report types.

2.4. PERFORMANCE DASHBOARDS

The benchmark database also generates summary dashboards for sectors and in relation to the performance of the Hub programme nationally. Example are provided below: -



Figure 4: Hub Community Benefit Dashboard

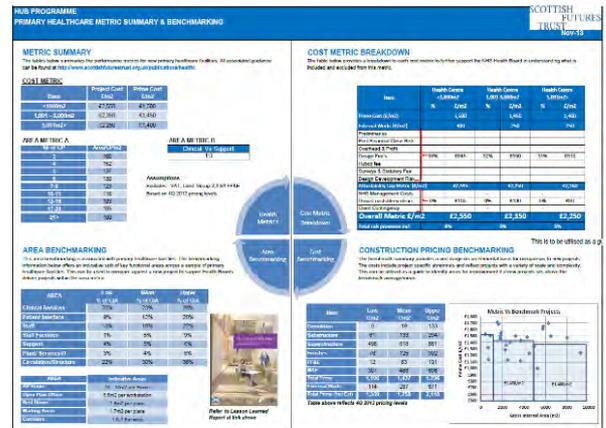


Figure 5: Primary Healthcare Sector Dashboard

These dashboards will draw upon the various project data contained within the benchmark database. Within the initial phase, the following dashboards will be provided within the database.

Content	Description
Sector Summaries <ul style="list-style-type: none"> Primary Healthcare Offices Primary Schools Secondary Schools 	A benchmark summary dashboard for each sector to inform pricing levels and best practice.

Table 1: Summary of Performance Dashboards

The dashboards will be updated quarterly by the administration team

2.5. BEST PRACTICE

The database also consolidates and include links to all current best practice that is available to support the delivery of Hub Projects. This includes existing guidance, metric information and reference design guidance.

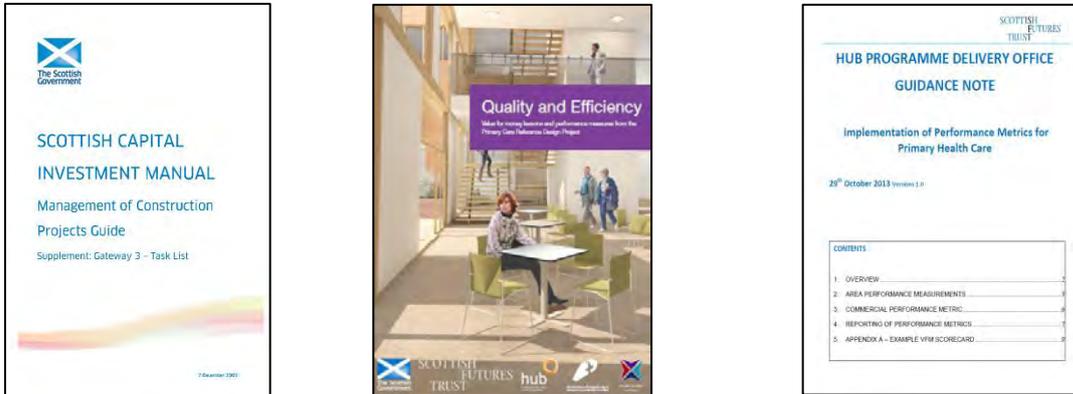


Figure 6: Examples of Best Practice Guidance

2.6. HOW TO ACCESS THE DATABASE

Access to the database will be offered to all Public Sector organisations. The user can request access by completing the registration within the website: -

Figure 7: Registration Page

Upon completing the registration page, the administration team will provide the user access to the database. The user should allow a maximum of 24 hours before access will be provided. For any urgent enquiries please contact the administration team direct.

3. DATABASE MANAGEMENT

3.1. DATA COLLECTION

All data included within the database will follow a defined process for collection and verification. This is outlined in the diagram below: -

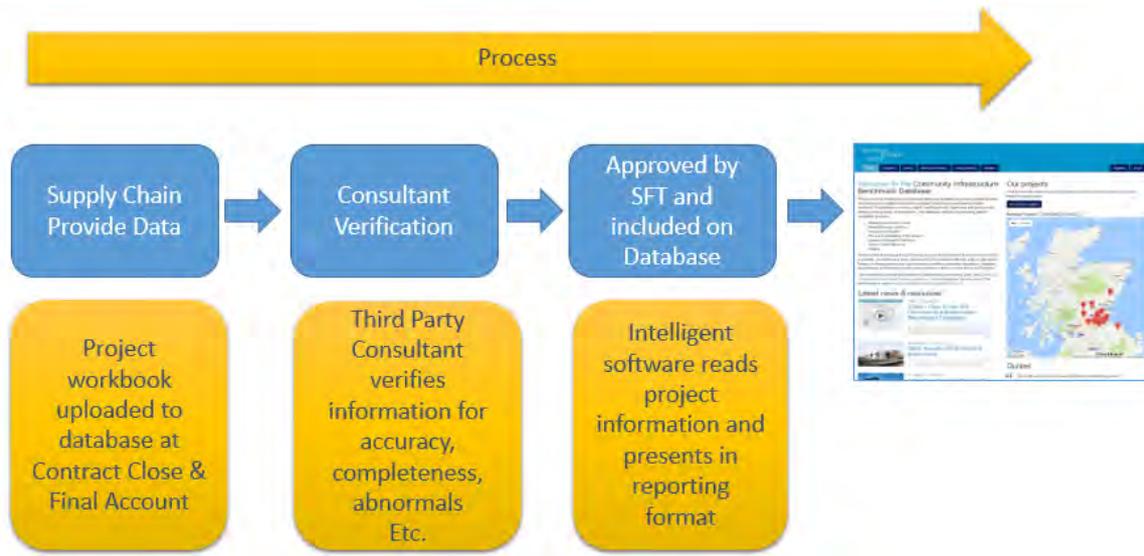


Figure 8: Process for data validation and upload

A responsibility matrix which sets out the parties who are responsible for the data collection is included within section 3.3.

3.2. WHEN IS PROJECT DATA COLLECTED

The capturing of project information will be done at two distinct stages which include: -

1. **Contract Close/Start on Site** – Contract sum, design data, general project data, drawings & images
2. **Agreement of the Final Account** – To reflect the actual final account and community benefits achieved.

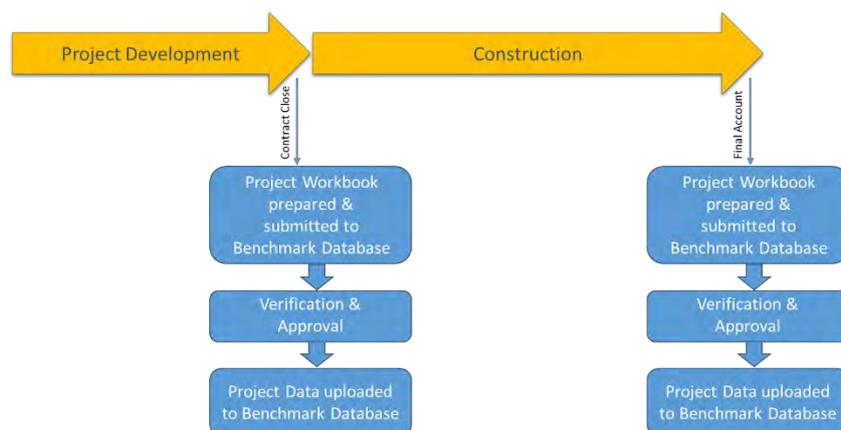


Figure 9: Stages when data submitted

3.3. RESPONSIBILITY MATRIX FOR DATA MANAGEMENT

The following matrix provides a proposed list of organisations responsible for the delivery of key activities in the maintenance of the database.

Activity	Contractor/ Consultant	Client	SFT	Validator
Populate project data workbook and submit to Benchmark Database at Contract Close	R	C		
Populate project data workbook and submit to Benchmark Database at Contract Completion	R	C		
Complete review of project workbook	C		C	R
Raise queries on project workbook as required	C			R
Approval of project workbook to be published onto database			R	C
Monitor and update performance dashboards for sectors.			R	

Table 2: RACI Matrix

R – Responsible for Delivery C - Consulted

To support the quality of data being submitted it is key that the correct parties are responsible for preparing the project workbooks. Therefore, it is recommended that the supply chain (either consultant or contractor) have responsibility for populating the project workbook sheet as they will have detailed knowledge of the project and associated information. To facilitate this, it is recommended that the requirements to populate the project workbook are included within the scope of works for these supply chain members.

3.4. PROJECT DATA WORKBOOKS

To ensure consistency, a standard Project Data Workbook has been developed to simplify the inputting of data. The workbook will incorporate standard data requirements at contract close and at final account. There are three sections within the workbook which include: -

1. **Level 3 Summary** – Base project information which capture all key data including design, cost and community benefits.
2. **Abnormal Tab**- This tab allows the users to adjust the project costs at contract close for any project specific abnormalities.
3. **Variation Tab** – This tab allows the user to adjust the project costs for any variations which have affected the costs during the construction period.

A link to the Project Data Workbook can be accessed [here](#). To further ensure consistency, a definition of each data field is provided within Appendix A. This will ensure the users who populate the workbook fully understand what is to be quantified and recorded.

3.5. UPLOADING DATA

The database offers a simple and easy online system for users to upload and modify new project data. The user can access this by clicking on the “**submit data**” tab. For any project there are two stages for submitting data and three key data requirements: -

Data Required	Contract Close	Completion/ Final Account
Project Workbook	Yes	Yes (Update & Include Variation Section)
Images of project (JPEG)	Yes	Yes
Plans & Elevations (PDF)	Yes	If Altered

Table 3: Key Data requirements

A summary of the data submission process is outlined below: -

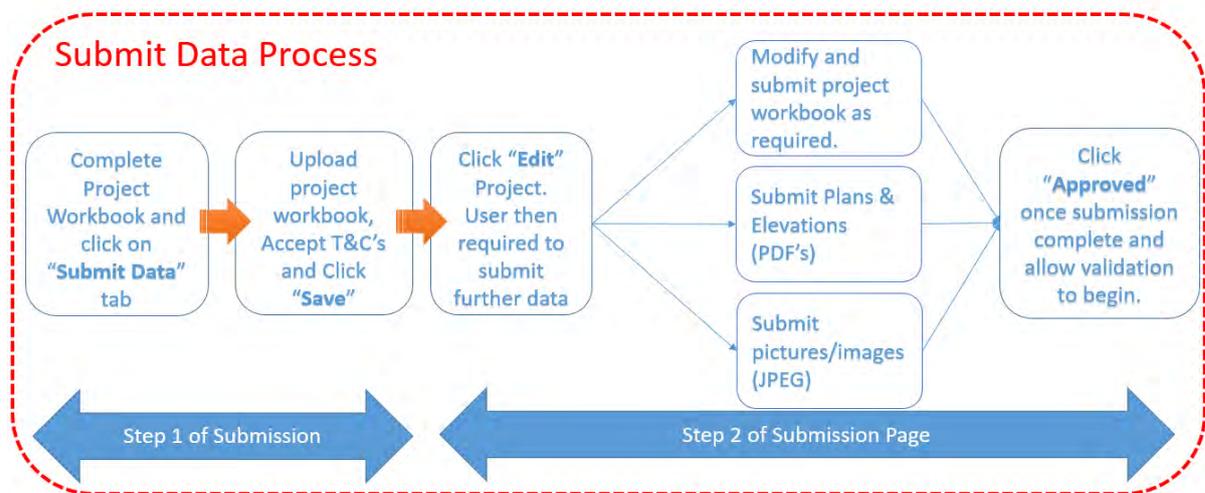


Figure 10: Data submission process

The user will then be asked to first upload the completed project workbook and then accept the Terms and Conditions for submission.

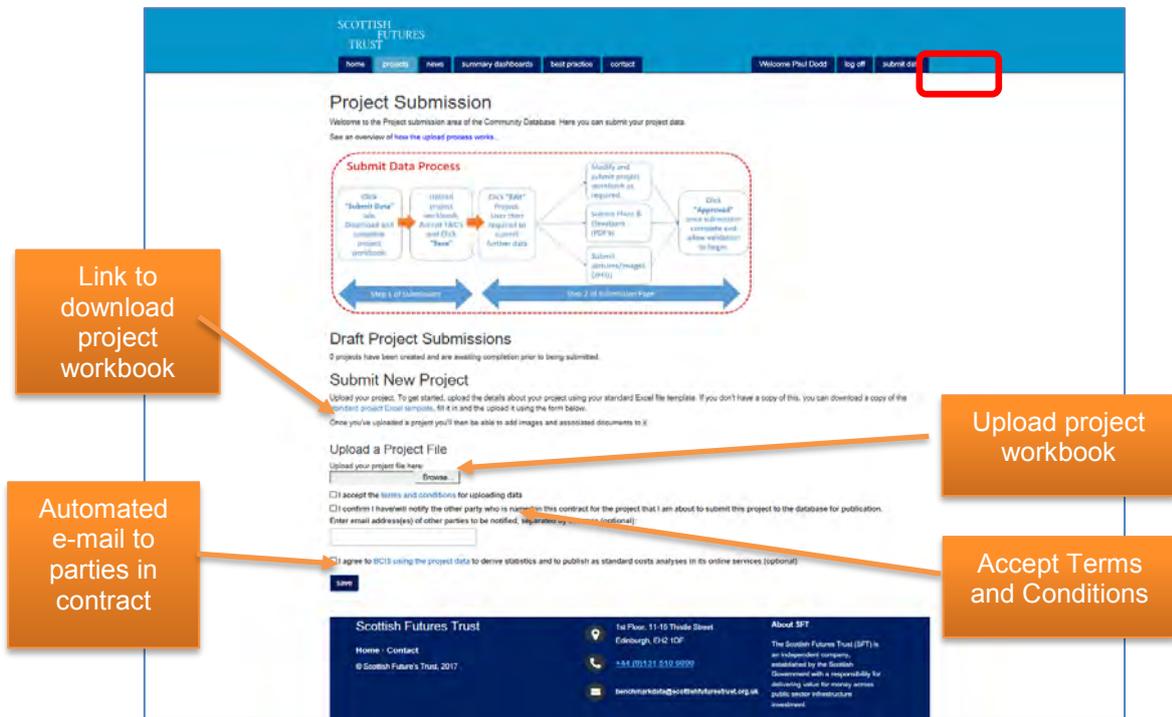
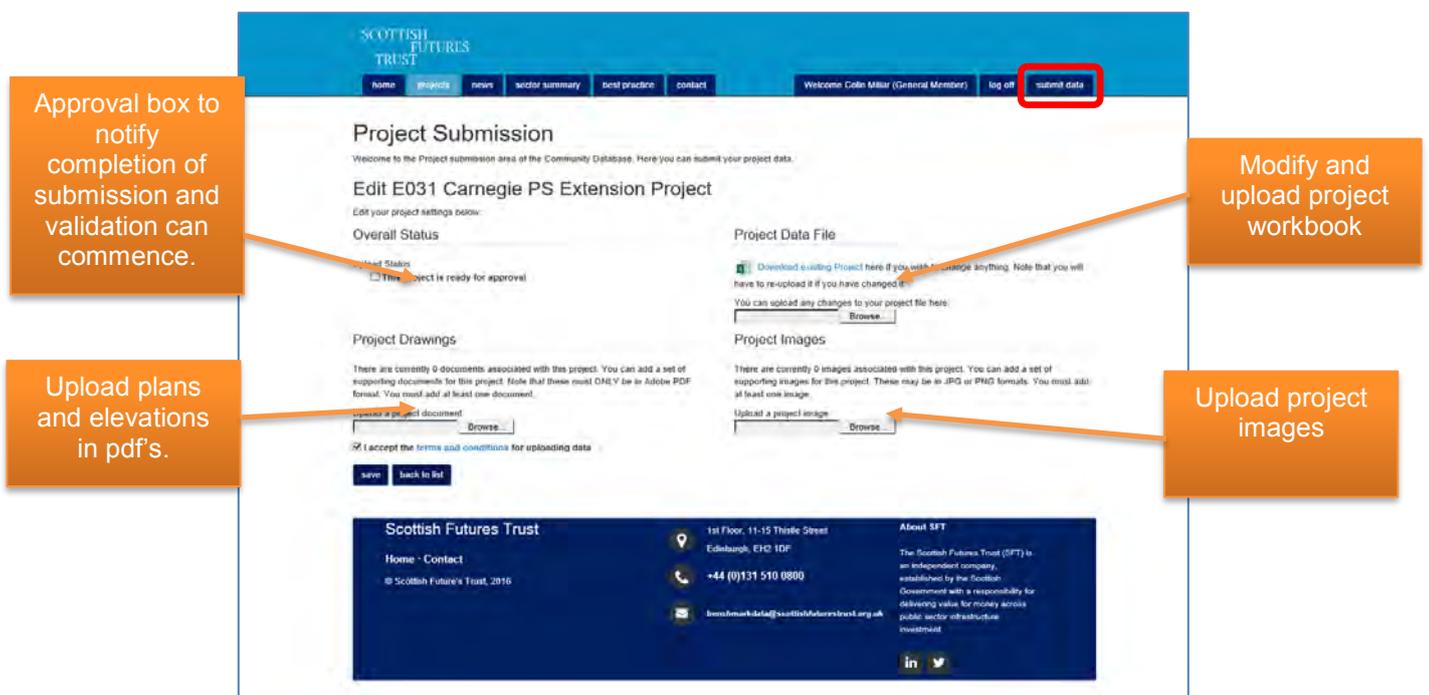


Figure 10: Submit Data Page 1

Upon uploading a project workbook, a project name will be created onto the system. The user is then required to click the “Edit” button to conclude the submit data process. When clicking edit, the second submission page will be presented: -



Upon Submission of data, the user may be contacted by the validation consultant if there are any queries in relation to the information submitted.

3.6. PROJECT ABNORMALS

The database also lists project specific abnormalities which affect the project costs. To effectively benchmark projects, users should be made aware of these abnormalities. These abnormalities may include significant costs incurred by the project due to the location or significant ground conditions. These abnormalities are identified separately and the costs broken down elementally for inclusion within the Project Data Workbook.

3.7. INFLATION

To support the analysis and consistency of cost reporting, the benchmark database will automatically update the pricing levels of a project for inflation. This is achieved in the project search screen where the users can select the price data that the project information is to be updated too. The system will automatically update the latest Tender Price Indices from the BCIS website to provide accurate and current inflation adjustments.

3.8. CLIENT DIRECT COSTS

The database does not report on the Client direct costs for each project. These costs are required to be considered and defined on a project by project basis. These costs may include FF&E not included within the main contracts, decant costs, client management costs, client contingency and other costs not accounted for elsewhere within the benchmark projects. The users are asked where possible to submit this data as part of the upload process but not all data will be reported within the database.

3.9. USE OF BENCHMARK DATA

When utilising the benchmark data, the user must ensure they seek appropriate advice and expertise.

4. APPENDIX A - DEFINITION LIST

Community Infrastructure Benchmark Database

Appendix A - Defintion List

Data Field	Definition
Stage 1/RIBA Stage 2 - Approved Submission Value (£)	The Total Project Cost (excluding client development costs) as set out in the approved Stage 1/RIBA Stage 2 submission.
Stage 1/RIBA Stage 2 - Date Issued	The date at which the Stage 1/RIBA Stage 2 Report was issued to the Lead Procuring Authority.
Stage 2/RIBA Stage 4 - Approved Value (£)	The Total Project Cost (excluding client development costs) as set out in the approved Stage 2/RIBA Stage 4 submission.
Stage 2/RIBA Stage 4 Submission (Date)	The date at which the Stage 2/RIBA Stage 4 Report was issued to the Lead Procuring Authority.
Financial Close/Contract Award (Date)	The date the price was contractually agreed.
Contracted Completion Date	Contract Sum - The agreed construction completion date as set out in the contract.
	Final Account - The completion date of the project to account for permitted extension of times applications.
Construction Programme Contracted (weeks)	The length of time (in weeks) between the date the site was available to the contractor and the contracted completion date.
Actual Completion Date	The achieved construction completion date or the date at which the building was available for occupation by the user.
Final Account (£)	The Total Project Cost (excluding client development costs) at Contract Completion.
Construction Programme Delivered (weeks)	The length of time (in weeks) between the date the site was available to the contractor and the achieved completion date.
Design Team	
hubCo	hubCo development partner involved in project (if applicable). Select from dropdown list.
Contractor	Name of Tier 1/Principal Contractor responsible for delivery of project.
Project Manager	Name of Consultant Organisation undertaking Project Management services on this project
Architect	Name of Consultant Organisation undertaking Architectural Design Services on this project
Structural Engineer	Name of Consultant Organisation undertaking Structural Engineering Design services on this project
Mechanical Engineer	Name of Consultant Organisation undertaking Mechanical Engineering Design services on this project
Electrical Engineer	Name of Consultant Organisation undertaking Electrical Engineering Design services on this project
Landscaping	Name of Consultant Organisation undertaking Landscape Design services on this project
Quantity Surveyor	Name of Consultant Organisation undertaking Quantity Surveying services on this project
M&E Sub-Contractor	Name of M&E Subcontractor
FM Contractor	Name of Contractor undertaking Facilities Management services on this project
Design Philosophy	
Layout/Space Plan	Description of building space plan: Finger Plan/Deep Plan
Substructure	Description of substructure make up: foundation type, make up and depth/ ground floor slab type, make up and depth.
Frame	Description of the structural building frame make up: type of material (e.g., steel, concrete, timber) and construction method used.
Upper Floors	Description of the upper floor structural make up: type of material (e.g., steel, concrete, timber) and construction method used.
Roof	Description of roof make up: roof structure make up /roof finish/ detail on any specialist roofing systems.
Stairs	Description of stair make up: type of material used (e.g., steel, concrete, timber), method used to construct, balustrade detail.
External Walls	Description of external wall make up: type of material and method used to construct external walls (e.g., block/render, brickwork, curtain walling, cladding system, brise soleil.)
Windows & Ext Doors	Description of make up of external windows and doors: material used for windows and doors including frames, glazing details.
Internal Walls & Doors	Description of internal wall and door make up: type of material and construction method used for walls (e.g., Metal/timber studs walls, blockwork, glazed screens). Type (i.e. material used and make up) of internal doors, including frames.
Wall Finishes	Description of finishes to internal walls (e.g., Painted plasterboard, tile finish, composite wall lining board), include detail if taped and filled or plastered.
Floor Finishes	Description of finishes to internal floors (e.g., carpet, lino, tile, timber), include detail of full build up, i.e. screed and underlay.
Ceiling Finishes	Description of internal ceiling finishes including construction method, material used and finishing detail (e.g., Suspended plasterboard ceiling with painted finish, suspended ceiling system (include detail on type), exposed soffit.
Fittings, Furnishing & Equipment	
M&E	
- Heat Source	Boiler type, fuel source, heating system details (i.e. radiators, radiant panels, underfloor heating)
- Ventilation	Description of ventilation strategy for building (e.g., Natural ventilation, mechanical ventilation, mixture of both), include detail on the specification/workings of any mechanical ventilation
- Electric	Description of electrical design/strategy for building (e.g., Main switchgear and distribution).
- Gas Installation	Detail on any gas installations/supplies to building, include detail on scale (e.g., Gas supply to 1nr kitchen, 10nr labs and 2nr boilers).
- Lifts	Description of any lifts in building: type of lift, number of lifts, size/capacity of each lift.
- Sprinklers	Description of any sprinkler installation: type/purpose of system (i.e. life/building safety), scale of system, storage tank size)
- Specialist Installations	Description of any other mechanical or electrical installations related to user function of the building which have not been included elsewhere. (e.g., XXXX)
- Communication Installations	Description of telephone, data, television and other communication installations.
- Protective Installations	Description of any fire and lightning protection systems installed in building.
External Works	
- General description	Description of external works: landscaped areas, access roads, pitches, tennis courts, other external sports facilities, car parking, including materials i.e. macadam, steel security fencing
Drainage	Description of surface and foul water drainage installation, particular reference to SUDS and type, pumping stations etc.
- Synthetic Pitches (Size + Nr)	Size and number of synthetic pitches if applicable.
- Running Track (Size + Nr)	Size and number of running tracks if applicable.
- Grass Pitches (Size + Nr)	Size and number of grass pitches if applicable.
- Car Parking Spaces (Size + Nr)	Size (i.e. standard/disabled) and number of parking spaces.
- Special	Description of any other external spaces related to user function of the building which have not been included elsewhere (e.g., tennis courts, pavilion, amphitheatre).
Renewable	Description of any renewable equipment and systems (e.g., Wind turbines, photovoltaic panels, rainwater harvesting).
Swimming pool (Size + Nr)	Size and number of swimming pools if applicable.
Area Breakdown Schools	Areas should be measured to internal face of perimeter walls at each floor level. Refer to Floor Area notes below.
School Roll (Design)	Total number of pupils the design proposal can accommodate.
Pupil Areas (Teaching areas, WC's, Dining,)	Total area of all enclosed spaces forming pupil areas including teaching areas, pupil WC's, pupil dining facilities and the like.
Community & Vocational	Total area of all enclosed spaces forming Community and Vocational areas including libraries, community specific teaching spaces and the like.

Community Infrastructure Benchmark Database

Appendix A - Defintion List

Data Field	Definition
Swimming Pool & Changing Facilities	Total area of all enclosed spaces forming swimming pool and associated changing facilities.
Assisted Special Needs Area	Total area of all enclosed spaces forming Assisted Special Needs Area
Admin / Clerical	Total area of all enclosed spaces forming Admin/Clerical Support office areas.
Staff Facilities (Staffroom, WC's, offices)	Total area of all enclosed spaces forming staff areas including staffroom, staff break out spaces, staff WC's, staff offices and the like.
Storage and Ancillary Support	Total area of all enclosed spaces for WC's, cloakrooms, cleaners' rooms and the like, supplementary to the main function of the building
Circulation	Total area of all enclosed spaces forming entrance halls, corridors, staircases, lift wells, connecting links and the like.
Plant/IT	Total area of all enclosed spaces for lift, plant and tank rooms, IT cupboards/labs and the like, supplementary to the main function of the building
Structure	Columns, piers chimney breasts, stairwells, lift-wells, other internal projections, vertical ducts, voids over stairwells and lift shafts on upper floors and the like
Total Gross Internal Floor Area	Area of a building measured to the internal face of the perimeter walls at each floor level. Equals sum of all areas listed above.
Nett Internal Area NIA (gross excluding circulation, Plant/IT & Structure)	Gross Internal Area excluding Circulation, Plant/IT and Structure.
Nett School Area (NIA excluding Community & Vocational, Swimming Pool &)	Nett School Area = Pupil Areas + Admin/Clerical + Staff Facilities + Storage and Ancillary Support.
Nett Non-School Area (NIA excluding Pupil Areas, Admin/Clerical, Staff &)	Nett Non-School Area = Community & Vocational + Swimming Pool & Changing Facilities + Assisted Special Needs
Circulation, Plant/IT & Structure to school area	Total area of Circulation, Plant/IT & Structure attributed to school area. Calculated on a pro-rata basis.
Circulation, Plant/IT & Structure to non-school area	Total area of Circulation, Plant/IT & Structure attributed to non-school area. Calculated on a pro-rata basis.
Gross School Area	Gross School Area = Nett School Area + Total Circulation, Plant/IT & Structure to school area.
School Area/ Pupil	Gross School Area divided by school roll.
Area Breakdown Primary Healthcare & Offices	Areas should be measured to internal face of perimeter walls at each floor level. Refer to Floor Area notes below.
General Practice	Total area of all enclosed spaces forming GP spaces.
Other Health Services	Total area of all enclosed spaces forming other health service areas which are not covered under GP area.
Local Authority Offices	Total area of all enclosed spaces forming Local Authority Offices.
Library/ Cafe/Collaboration Spaces	Total area of all enclosed spaces forming Library/Cafe/Collaboration Spaces.
Patient Interface/ Reception/ WC's	Total area of all enclosed spaces forming Patient Interface/Reception/ Patient WC's.
Admin / Clerical/ Staff	Total area of all enclosed spaces forming Admin/Clerical Support office areas.
Staff Facilities	Total area of all enclosed spaces forming staff areas including staffroom, staff break out spaces, staff WC's, staff offices and the like.
Storage and Ancillary Support	Total area of all enclosed spaces for WC's, cloakrooms, cleaners' rooms and the like, supplementary to the main function of the building
Plant/ IT	Total area of all enclosed spaces for lift, plant and tank rooms, IT cupboards/labs and the like, supplementary to the main function of the building
Circulation	Total area of all enclosed spaces forming entrance halls, corridors, staircases, lift wells, connecting links and the like.
Structure	Columns, piers chimney breasts, stairwells, lift-wells, other internal projections, vertical ducts, voids over stairwells and lift shafts on upper floors and the like
GP Spaces (Nr)	Number of functional GP spaces in building.
Workstations (Nr)	Number of functional workspaces in building.
Total Gross Internal Floor Area	Area of a building measured to the internal face of the perimeter walls at each floor level. Equals sum of all areas listed above.
Adjustments Excl From Prime	The abnormals listed within the database are to inform the user of project specific issues. The abnormals listed in this database are not representative of views of the Scotland's Schools for the future Team and associated calculation of metrics.
Insert Abnormal Description	
Insert Abnormal Description	Abnormals are defined as a project specific element which is unavoidable to the project and causes disproportionate cost impact when delivering the core project function.
Insert Abnormal Description	
Insert Abnormal Description	Any associated cost impact due to the location of the project should be included as a project abnormal and identified elementally. Projects within the Highlands and Islands will be deemed applicable to a project location adjustment.
Insert Abnormal Description	
CONSTRUCTION COSTS	
Element	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.0 Facilitating works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.1 Toxic/hazardous/contaminated material treatment	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.2 Major demolition works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.3 Specialist ground works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.4 Temporary diversion works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
0.5 Extraordinary site investigation works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
1.0 Substructure	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
1.1 Substructure	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.0 Superstructure	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.1 Frame	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.2 Upper floors	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.3 Roof	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.4 Stairs and ramps	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.5 External walls	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.6 Windows and external doors	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.7 Internal walls and partitions	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
2.8 Internal doors	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
3.0 Internal finishes	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
3.1 Wall finishes	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
3.2 Floor finishes	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
3.3 Ceiling finishes	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
4.0 Fittings, furnishings and equipment	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
4.1 Fittings, furnishings and equipment	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.0 Services	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.1 Sanitary installations	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.2 Services equipment	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.

Community Infrastructure Benchmark Database

Appendix A - Defintion List

Data Field	Definition
5.3 Disposal installations	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.4 Water installations	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.5 Heat source	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.6 Space heating and air conditioning	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.7 Ventilation	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.8 Electrical installations	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.9 Fuel installations/systems	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.10 Lift and conveyor installations/systems	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.11 Fire and lightning protection	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.12 Communication, security and control systems	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.13 Special installations/systems	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
5.14 Builder's work in connection with services	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
6.0 Complete buildings	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
6.1 Pre-fabricated buildings	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.0 Work to existing building	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.1 Minor demolition works and alteration works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.2 Repairs to existing services	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.3 Damp proof courses/fungus and beetle eradication	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.4 Facade retention	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.5 Cleaning existing surfaces	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
7.6 Renovation works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.0 External works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.1 Site preparation works	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.2 Roads, paths and paving's	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.3 Soft landscaping, planting and irrigation systems	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.4 Fencing, railings and walls	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.5 Site/street furniture and equipment	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.6 External drainage	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.7 External services	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
8.8 Minor building works and ancillary buildings	Refer to from BCIS Elemental Standard Form Cost Analysis 4th (NRM) Edition for Elemental Definitions.
TOTAL PRIME COST	The total of all direct material costs, labour costs and direct expenses. Equals total sum of items 0.0 to 8.8 above.
Preliminaries & Overheads & Profits	Preliminaries - Costs incurred during construction, which are directly related to the running of the project and have not been included in the prime cost or overheads & profits. Overheads - Costs incurred during construction for running the main contractor organisation which are directly related to the running of the project and have not been included in the prime costs or preliminaries. Profits - The money the main contractor organisation makes after accounting for all costs and expenses. This cell equals total cost of all Preliminaries + Overheads + Profits.
Contingency	Total risk allowance included to cover the cost of all risks held by the main contractor.
TOTAL CONSTRUCTION COST	Total Construction Cost = Total Prime Costs + Preliminaries & Overheads & Profits + Contingency.
Post RIBA Stage 4/ Post Financial Close Fees	Total costs of consultants fees incurred between Contract Agreement and Final Account.
Stage 1/RIBA Stage 2 Fees	Total costs of consultants fees incurred between RIBA Stage 0 and RIBA Stage 2.
Stage 2/RIBA Stage 4 Fees	Total costs of consultants fees incurred between RIBA Stage 3 and RIBA Stage 4.
Other Project Development Costs	Total cost of management/consultants fees which are not accounted for under the above 3 headings. E.g.. Hubco Portion, Framework Fee.
Surveys Costs	Total cost any survey work undertaken in relation to the project in advance of Contract Agreement
TOTAL PROJECT COSTS (Excluding Client Development Costs)	Total Project Cost = Total Construction Cost + Total Consultant Fees + Total Other Project Development Costs + Survey Costs.
Client Development Costs (Decant/Cont./Fee)	Total of any costs incurred by the client which are directly related to the delivery of the project which are not included in the Total Project Costs. Example, Internal Management Fees, Decant Costs, Furniture & Equipment.
TOTAL PROJECT COSTS (Including client development costs)	Total cost to the Procuring Authority of delivering the project. Equals Total Project Costs + Client Development Costs.
Floor Area Notes	
Gross Internal Floor Area (GIFA): Area of a building measured to the internal face of the perimeter walls at each floor level.	
Includes	Excludes
◊ Areas occupied by internal walls and partitions	◊ Perimeter wall thickness and external projections
◊ Columns, piers chimney breasts, stairwells, lift-wells, other internal projections, vertical ducts, and the like	◊ External open-sided balconies, covered ways and fire escapes
◊ Atria and entrance halls with clear height above, measured at base level only	◊ Canopies
◊ Internal open sided balconies, walkways, and the like	◊ Voids over or under structural, raked or stepped floors
◊ Structural, raked or stepped floors are treated as a level floor measured horizontally	◊ Greenhouses, garden stores, fuel stores and the like in residential property
◊ Horizontal floors with permanent access below structural, raked or stepped floors	
◊ Corridors of a permanent essential nature (e.g. fire corridors, smoke lobbies, etc.)	
◊ Mezzanine areas intended for use with permanent access	
◊ Lift rooms, plant rooms, fuel stores, tank rooms which are housed in a covered structure of a permanent nature, whether or not above main roof level	

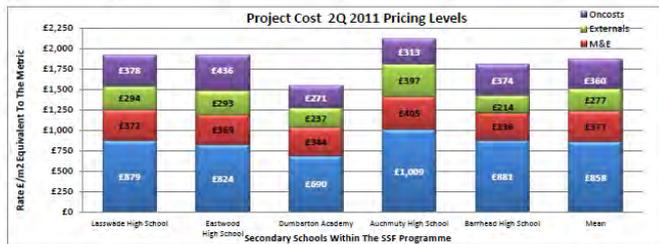
Community Infrastructure Benchmark Database

Appendix A - Definition List

Data Field	Definition
0 Service accommodation such as toilets, toilet lobbies, bathrooms, showers, changing rooms, cleaners' rooms and the like	
0 Projection rooms	
0 Voids over stairwells and lift shafts on upper floors	
0 Loading bays	
0 Areas with headroom of less than 1.5m	
0 Pavement vaults	
0 Garages	
0 Conservatories	
Notes:	
1. The definition of Gross Internal Floor Area is based on RICS Property Measurement 1st Edition 2015., Definition of Gross Internal Area.	
2. The GIFA excludes the thickness of perimeter walls, but includes the thickness of all internal walls. Therefore, it is necessary to identify what constitutes a separate building, e.g. the sum of the GIFA of a terrace of buildings, treated as separate buildings, will be different from the terrace treated as a single building.	
3. Areas of open ground floors and the like should be excluded.	
4. 'Internal face' means the structural wall or plaster coat applied to the structural wall, not the surface of internal linings installed by the occupier.	
5. Lift rooms, etc. should be included if housed in a roofed structure having the appearance of permanence (e.g. made of brick or similar building material). Areas covered by enclosures designed solely to mask plant, rooflines, etc. should be excluded.	
6. The presence of steps or changes in floor levels should be noted.	
7. Attention is drawn to the exclusion of voids over atria at upper levels and the inclusion of voids over stairs, etc. Where an atrium-like space is formed to create an entrance feature, and this also accommodates a staircase, this does not become a stairwell but remains an atrium measurable at base level only.	
8. Walkways across an atrium at upper levels should be included in the measurement of upper floors.	
9. Areas in the roof space intended for use with permanent access should be included in the measurement of upper floors and measured to internal face of the enclosing wall or the roof at floor level.	
10. Re-entrant balconies, i.e. open sided balconies within the predominant line of the external wall should be treated as open sided balconies and excluded.	

5. APPENDIX B – EXAMPLE DATASETS
Level 1 Project Data Sheet

Project	Lasswade High School	Eastwood High School	Dumbarton Academy	Auchmuty High School	Barrow High School
Location					
Hub Territory					
Participant					
Value (Em)					
Gross Internal Area					
Pupils					
£/Pupil					
BREEAM Rating					
EPC Rating					
Project Status					
Basis of Costs					



Elemental Range	Low £/m2	Mean £/m2	Upper £/m2
0 Demolition & Alterations	£0	£13	£23
1 Substructure	£80	£88	£126
Foundations	£40	£42	£44
Ground Floor Slab	£10	£11	£11
Piling	£10	£11	£11
2 Superstructure	£405	£425	£446
2A Frame	£50	£53	£55
2B Upper floors	£80	£63	£68
2C Roof	£50	£53	£55
2D Stairs	£20	£21	£22
2E External Walls	£80	£84	£88
2F Windows & External Doors	£80	£63	£68
2G Internal Walls & Partitions	£50	£53	£55
2H Internal Doors	£55	£58	£61
3 Finishes	£88	£71	£75
3AWall finishes	£15	£16	£17
3B Floor finishes	£15	£16	£17
3C Ceiling finishes	£10	£11	£11
3D Decoration	£18	£19	£20
4 Fittings & Furnishings	£128	£134	£141
5 ICT	£15	£16	£17
Containment	£11	£12	£12
Structural Wiring	£4	£4	£4
6 Services	£366	£384	£403
6A Sanitary appliances	£6	£7	£7
6B Services equipment	£8	£8	£9
6C Disposal installations	£4	£4	£4
6D Water installations	£32	£34	£35
6E Heat source	£46	£48	£51
6F Space heating and air treatment	£12	£13	£13
6G Ventilating systems	£38	£41	£43
6H Electrical installations	£106	£111	£117
6I Gas installations	£5	£5	£5
6J Lift and conveyor installations	£8	£8	£9
6K Protective installations	£18	£19	£20
6L Communications installations	£15	£16	£17
6M Special installations	£53	£58	£68
6N Builders work in connection	£9	£9	£10
6O Builders profit	£5	£5	£6
7 External Works	£214	£225	£238
7A Site works	£50	£53	£55
7B Drainage	£54	£57	£59
7C External services	£80	£83	£88
7D Minor building works	£30	£33	£35
Prime Cost (C1A)	£1,500	£1,900	£2,300
Preliminaries & Overhead & Profit	£102	£107	£112
Contingency	£70	£74	£77
TOTAL CONSTRUCTION COST	£1,672	2080,621	2489,229
PROFESSIONAL FEES			
Post Financial Close	£78	£90	£104
Stage 1	Incl	Incl	Incl
Stage 2	Incl	Incl	Incl
Halibon Fee & Portion	Incl	Incl	Incl
Surveys	Incl	Incl	Incl
CLIENT COSTS			
Client Development Costs	£113	£140	£168
TOTAL PROJECT COSTS	£1,863	2,317	2,719

Level 2 Project Data Sheet

Project	Total Project GIA (m2)	Educational GIA (m2)	Design Roll No	Area Per Parcel (m2)	Rate £/m2															Total Project Cost (£m)	Total Project Cost (£)	Procurement	Layout	Frame Concrete/Steel	Description		
					Demo	Substructure	Superstructure	Finishes	FF&E & ICT	M&E	External Works	Total Prime	Prime&OP	Risk	Fees	Design Pre-Construction	£0	£1	£2							£3	£4
Lasswade High School	17,863	15,724	1,480	10.62	£17	£126	£432	£92	£212	£372	£294	£1,545	£167	£0	£98	£113	£1,922	£34,333,876	D&B	Deep Plan	Concrete	New build high school for Mid Lothian Council which encompasses community facilities. The building was designed to BREEAM excellent and EPC B. The building includes solar water and photovoltaics. The school encompasses 1 synthetic pitch and running track as well as 3 grass pitches.					
Eastwood High School	13,887	13,887	1,220	11.38	£20	£93	£435	£114	£162	£369	£293	£1,487	£178	£13	£105	£141	£1,923	£26,704,840	D&B	Deep Plan	Concrete	New build high school for East Renfrewshire Council. The building was designed to BREEAM excellent and EPC A. The building includes solar water, biomass and photovoltaics. The school encompasses 2 synthetic pitch and 1 running track.					
Dumbarton Academy	10,331	10,331	680	15.19	£23	£66	£405	£68	£128	£344	£237	£1,270	£148	£24	£78	£21	£1,541	£15,921,599	D&B	Finger Design	Concrete	New build high school for West Dunbartonshire Council. The building was designed to BREEAM excellent and EPC A. The building includes solar water, biomass and photovoltaics. The building includes 2 synthetic pitches and 1 grass pitch.					
Auchmuty High School	14,087	14,087	1,300	10.84	£0	£99	£635	£104	£170	£405	£397	£1,811	£114	£0	£199	£199	£2,124	£29,920,078	Trad	Finger Design	Steel Frame	New build high school for Fife Council. The building was designed to BREEAM excellent and EPC A. The building includes solar water and photovoltaics. The school encompasses 1 synthetic pitch and a grass running track and 1 grass pitch.					
Barrow High School	11,494	11,494	850	12.28	£0	£86	£518	£89	£202	£341	£218	£1,454	£219	£16	£133	£12	£1,834	£21,889,948	Hub	Deep Plan	Concrete	New build high school for East Renfrewshire Council. The building was designed to BREEAM very good and EPC B+. The building adopted passive measures to reduce energy requirements. The school encompasses 1 synthetic pitch and 1 running track with existing grass pitches.					
Inverness Royal Academy	15,964	14,874	1,474	10.09	£17	£81	£573	£70	£155	£442	£251	£1,500	£203	£18	£141	£30	£1,942	£30,995,695	Hub	Deep Plan	Steel	New build high school for Highland Council. The building was designed to EPB B. The building adopted passive measures to reduce energy requirements. The school encompasses 1 synthetic pitch and 1 running track with existing grass pitches.					
Low					£0	£61	£485	£68	£128	£341	£218	£1,270	£114	£0	£0	£12	£1,541										
Mean					£13	£89	£500	£90	£171	£379	£278	£1,519	£171	£12	£92	£86	£1,881										
Upper					£23	£126	£635	£114	£212	£442	£397	£1,811	£219	£24	£141	£199	£2,124										

