



Topic: Architectural Sports Leisure Centre

Full Portfolio

General Description

The candidate produced a portfolio of 94 pages, which are presented clearly and are annotation rich. This architectural project is a Sports Leisure centre. When completing an architectural project it is expected that the candidate's approach to this in a way that commercial architects would present their work to a client. Details of the function, performance and build of the real building, whilst producing an accurate scaled architectural model for the client allowing them to appreciate the form and proportion of the proposed construction project.

Centre Mark **Mod Mark**

Grid 1 Investigation Evidence	In this section we expect the candidate to research a client, or a target market, their wants and needs and develop a range of possible design opportunities. It is expected that these design starting points are justified and are approached from a range of positions. Alongside the client they need to make a decision on the potential design possibility that they are working on and produce a preliminary design brief. Slide 2, the candidate offers a wide range of possible design solutions in a graphic and considered way. A range of target markets are identified listing words that could potentially act as a project trigger. Slides 3,4 offers an insight into big picture thinking, teasing out that mental issues for teenagers are an issue following the global pandemic. This leads onto the client being introduced on slide 5, teenagers who have gone through the pandemic and are carrying some residual effect of this. This is an unusual choice of a client for an architectural project, a more common client would be a business with a specific need for a project, however when placed amongst the supporting evidence, the client selection is valid one to satisfy the A level standard. Detailed client interviews can be seen on slides 5-9, with pertinent conclusions drawn. A justified research plan and preliminary brief can be found on slide 12. The depth and quality of the material is an assessment at level 3.	Level 3
Grid 2 Analysis/Research Evidence	In this section the candidate should be perceptive in their sourcing of the research, ensuring that relevant material is found that will support the development of the design proposal. This could include existing products, ergonomic information and standards, sustainability, form and function. Extensive research is evidenced on slides 13 to 30. Importantly in these types of projects a site plan is offered on slide 25. Previous research is used to validate the size of the site, converting the ground area into the number of pitches and courts this equates to. Prime and secondary ergonomic data is seen on slide 21. The relevance of this data can be seen in the design sheets.	Level 4

	Further research of architectural styles and are added as inspirational material on slide 34.		
Grid 3 Specification Evidence	In this section the candidates should produce a design brief that reflects the investigated needs, wants and values of the client/end user. The specification points should be realistic, technical and measurable. The design brief is placed after the specification on slide 33. It is relevant and draws upon aspects seen in the research. Slides 31-33 specification. Relevant specification points are made with justifying statements. There are instances where the specified point is not referenced in the research and they feel presumptuous, Point F3 <i>'the sports centre main body should have a natural colour'</i>. However, some of the measurable statements relate to specific tests, FU1 slide 31. So overall this is a high-level specification section.		Level 3
Grid 4 Design ideas Evidence	In this section candidates should be thinking like a commercial architect and apply their knowledge of technical skills and materials and back it up with the research they have previously carried out. The iterative feel of the project will be supported by additional research and responses to comments made by the client. Design ideas are seen on slides 35-44. Sketching is clear and the candidates design intent is obvious throughout these pages. Three designs are offered, and inspirational and research material can be seen on the pages supporting the candidate's annotation. The interior rooms and functions have been considered and helps to inform the outside of the buildings. The handwritten annotation around the sketches relate to the building and draw upon aspects raised in the research. Construction processes and materials used in building are limited, there is some references, the properties of fibre glass used in an elevator on slide 35, soundproofing panels slide 36, are two examples. The majority of the annotation relates to the construction of the architectural model. This would be more expected in the later stages of design development as the candidate tries to replicate their design intent into a model form. This body of work has little value in the assessment for the design section, but can have some accreditation in the development section, grid 5. A review of their design ideas can be seen on slides 43 and 44. This review could take place within the body of the design sheets; however, this is a clear way of indicating that a review against the specification has been made and offers some balance and pros and cons of the ideas. The colour coding of whether the statement has been met or not indicates how it links to the specification, but it does not offer any justification. At the bottom of slide 43, in the sizes section the <i>candidates</i> use of research is highlighted in the statement of <i>'drawing the courts to the appropriate sizes then worked my way around them to create the design idea'</i>. Because of the lack of 'real' material and manufacturing processes this section was close to being a level 2		Level 3

	submission, however, holistically, the clarity of the design thinking, use of research and some pertinent observations takes this into a low level 3 grade.		
Grid 5 Development Evidence	In this section candidates should demonstrate the application of an iterative approach to the design development. Modelling/simulations should be used to test appropriate features including proportions, scale, function and sub systems. Slides 47 to 55. The candidate decided to develop idea 1, the slides show a clear movement and development to get to the final product that is justifiable significantly different from the initial proposal. The development ranges from considering the real outcome, slide 47 ramp detail, to testing and trialling materials that can be used for the architectural model, slide 49. The final outcome has not only been developed as a shell of the building, but as demonstrated in slide 52, the positioning of the primary internal spaces has also been considered. Throughout these slides new visual references and research are included which gives the whole process an iterative feel. The client input throughout the portfolio has a level of reality and does have a meaningful effect on the developing final design. Detailing is considered and applied with great effect.		Level 3
Grid 6 Final Design Evidence	This section should include enough detail to allow third party manufacturing as well as accurate measured drawings of the finished design, alongside full cutting lists of the materials and components required. Slides 56 to 62. The general arrangement 3D images on slides 56 and 57 indicate the materials for the model, and the annotation briefly references some of the structural elements. There is some cross over referencing between model and actual build, which for this section is considered confusing. The dimensions on the orthographic drawings are in meters and refer to the building, while dimensional detail for the model construction can be found in slide 60. There are some constructional details missing in terms of the issue of third-party manufacture. This slide also contains calculations of the estimated waste material, however, to achieve the very highest assessment award this should also include how the amount of waste can be reduced.		Level 3

Grid 7 Review Evidence	Evidence in this section is likely to include notes throughout the development and summary pages comparing the final idea to the specification but must include logical and effective communication that uses technical vocabulary and refers to sustainability. Throughout the folder there is evidence that the candidate has considered alternatives in both the material and the construction of the final piece. Near the top of slide 40, the reasoning to change from hand cutting acrylic to laser is discussed. Client feedback is offered as a third-party opinion, but this is rarely used as a starting point to indicate how this would affect the design. The comparison between the three initial design ideas, slide 44, gives a balance and a justification towards the final design, however it is not obvious if positive features from the other designs have been brought forward. Slide 63, is labelled as a review slide and developmental changes throughout the project are listed here, justification for these changes is included in the annotation.	Level 4
Grid 8 Communication Evidence	The candidates should: Demonstrate a perceptive selection and accomplished use of traditional/manual graphical techniques to communicate design proposals. Demonstrate a perceptive selection and accomplished use of computer-aided design (CAD) techniques to communicate design proposals. Demonstrate a perceptive selection and accomplished use of written techniques to communicate design proposals. All of the strands have been fully met by the candidate. The detail of the CAD on slide 46 illustrates a high level of detail. Illustrations are well presented and the design intention obvious.	Level 3
Grid 9 Tools and equipment Evidence	In this section the candidate must demonstrate an accurate and skilful use of tools, equipment and techniques. The selection of materials chosen by the candidate are what can be expected for a commercial architectural model. To this end they are limited and traditional. Hand tools were used for the majority of cutting for the manufacture. The final design required complex and intricate pieces, and the candidate carried out this manufacture and assembly to a high degree of accuracy and skill. The tasks carried out by the candidate were a low level of serious risk, but precautions and evidence of safe working practice can be found in the manufacturing diary and the production chart on slide 66.	Level 4
Grid 10 Quality and Accuracy Evidence	In this section the candidate is expected to produce a finished working prototype that meets the need of the specification. Within the manufacture the candidate can also evidence a sophisticated application of an iterative approach to the manufacture. The final product clearly shows the design intent and is a good example of an accurate architectural model. The folder is missing a manufacturing specification, which when applied to this type of project makes it easier to justify how a specification is met. Some iterative work is evidenced in slide 72, where a vacuum formed mould is cut into three to facilitate it fitting onto the bed of the machine. On the same slide the quality of the make is supported further by the use of a laser to ensure accurate marking out of lines to be cut.	Level 4

Grid 11 Test and Evaluate Evidence	In this section it expected that the candidates will produce an analysis of the prototype includes testing against the specification. After completing the testing, it is important to pull together the results into an evaluation summary that uses the results to inform the designer about future changes that may improve the product performance. The evaluation section can be found in slides 86 to 92. Each specification point is considered, and some relevant testing and conclusions are drawn. Slide 93 offers a test that states by <i>‘measuring, I confirmed the heights of all of the rooms were correct’</i>. Measuring and checking dimensional accuracy is a simple check, however, it does match the assessment point of being a specific testing process. A life cycle analysis, slide 88, is focused on the construction of the architectural model. It does read so that it is specific to the project and not just a generic reference to an LCA. The feedback from the client, and evaluative comments that could suggest further improvement. Appear through the body of the project, however summative and conclusive comments would better support a higher level of assessment in this section.		Level 2
Total			A Grade