HKIA / ARB Professional Assessment 2022
Paper 1: Statutory Controls in Building Works
Examiners' Report

STRUCTURE OF PAPER

Paper 1 comprised two sections, one for multiple-choice (MC) questions and the other for essay questions.

The MC section had 40 questions. Each MC question carried 2 marks. The passing mark was set at 65%.

For the essay question section, candidates were required to answer 1 compulsory essay question and 2 out of 3 other essay questions. The compulsory question carried 30 marks and the other two questions carried 15 marks each. The passing mark was set at 50%.

Set on topics detailed in the syllabus of PA Handbook, the questions tested candidates' knowledge, skills and maturity to handle their day-to-day work as an Architect.

ASSESSMENT OBSERVATIONS

FOR WHOLE PAPER
328 candidates took Paper 1 and 194 candidates (59.15%) passed.

FOR MULTIPLE-CHOICE QUESTIONS
148 candidates passed (45.12%) and the mean mark was 62.50 marks out of 100.
Whereas the standard deviation was comparable to those of the previous years, the mean mark and standard deviation were higher than that of the last year.

FOR ESSAY QUESTIONS
241 candidates passed (73.47%). The passing rates of the essay questions were as follows:
Q1 – 75.30% (247 out of 328 candidates)
Q2 – 27.27% (51 out of 187 candidates)
Q3 – 85.76% (223 out of 260 candidates)
Q4 – 41.79% (84 out of 201 candidates)

Question 1 (Compulsory)

The question was about feasibility of converting an existing industrial building for domestic use. Candidate's knowledge of development potential differences between domestic and non-domestic uses, and their differences between specific health and safety were tested. Candidates were also required to be innovative about how to make the conversion possible given all the constraints and difficulties.

Candidates were asked to do 2 things on lands, development potential, health and safety aspects on the conversion:

- Identify and explain what kind of statutory control(s) may cause the conversion to become not feasible
- Explain what the possible means are to overcome the challenge(s)

Many candidates just provided answers to the first bullet and not a word about the 2nd bullet.

Most candidates were able to provide the PR and SC calculations to demonstrate the problems to convert a non-domestic building which had already optimized the development of its site into a domestic building. However, candidates were very weak in providing the solutions.

In the debriefing lecture on 24 April 2023 given to candidates who failed Paper 1, the attached notes were provided to help them understand.

Question 2

This question was set based on a hypothetical scenario that various changes to the layout of an office building were proposed by the leasing department of a client to address the needs of prospective tenants. It was divided into 5 parts. The candidates were expected to state with reasons whether the proposed changes comply with the Buildings Ordinance and its subsidiary regulations. They should also suggest the faster way to obtain statutory approval for the changes if they could be approved. In case that the changes would not comply with legislation, they should suggest the alternative.

Most candidates answered Part (a) correctly and stated that the walls of the protected lobbies for the fireman's lift could not be removed. They could also answer Part (b) correctly and pointed out that auto-released magnetic locks and access card control system could be added to the doors leading to the fire escape staircases, provided that the locks were accepted by Fire Services Department in the building plan amendments.

Probably because the previous two Parts focused on fire safety compliance issues, the majority of candidates approached Part (c) by considering only the travel distances and the number of occupants in the proposed sub-divided offices, and were not aware of the problems related to the prescribed window and the fire compartmentation requirements.

The scenario in Part (d) was similar to that in Part (c), though the prescribed window and the fire compartmentation requirements were no longer relevant. This was why many candidates could give the correct answer that the proposed office sub-division was feasible and the minor works control system could be employed to achieve faster statutory approval. The weaker candidates wrongly believed that there would be change in land use or change in use classification when the commercial office area was used as a dental clinic.

Part (e) proved to be not difficult to most candidates. They could correctly identify the issued related to the non-provision of windows in rooms containing waste fitments and suggested applying for modification of Building (Planning) Regulation 36.

Question 3

Candidates were tested on their acquaintance with the procedure of applying to the Buildings Department for "Occupation Permit" for a new building.

The first part of the question, accounting for 10 marks, asks the candidates to describe the

state of the building works that would meet the basic requirements for OP inspection: such as connection of water supply, electricity and drainage, obtaining fire certificate from the Fire Services Department and use permit for lifts from EMSD, and handing over of completed run-in construction and footway reconstruction works to HyD. The AP should also check that the building is completed and conforms to approved building plans, in respect of fire-escape routes, fire-rated doors, fire dampers, prescribe windows, room heights, etc.

The second part of the question, accounting for 5 marks, asks for a description of any five items among the documents required to be submitted together with OP application under Form BA13. Candidates are expected to have knowledge of PNAP APP-13 and the appended checklist, and refer to the amended building plans, record plans, DVD-ROM, schedule of building materials and products, reports, certificates and undertakings that were required to be submitted.

Most of the candidates performed satisfactorily, with 223 out of 260, or 85.76%, attaining higher than 8 out of 15 marks for the question. It was also evidence that the candidates had done their homework after attending the Paper 1 seminar, and were aware of the procedure for obtaining Occupation Permit.

Question 4

This question comprises 5 parts and each part carries 2 to 4 points only. Therefore, only a short and precise answer for each part was expected. Despite it was a situational question, all concepts on the relevant statutory controls have already been covered in the seminar presented to the candidates in the same year.

A high passing rate was expected. However, there were less than half of the total attempted candidates passed this question (scored 8 or more out of 15).

The key observation was that those failed candidates were not familiar with the control for existing buildings. Many of them still answered with those controls for existing buildings which they shall be more familiar with in their daily work. However, they were irrelevant to this question and no mark can be awarded for a total irrelevant or wrong answer.

More importantly, many candidates' concept on Buildings Ordinance was quite weak. Their answered scripts reveal them being lack of knowledge on requirements for approval and consent; no retrospective approval by BA; unauthorized building works, orders…etc.
In the contrary, there were still a number of candidates provided very good answers. Some short but previse points for each part could score very high marks too. They could also save time to attempt other questions.

It was recommended to keep this kind of situational question as it could encourage the candidates to apply their statutory and lease control knowledge into real practices, instead of simply reciting information form the ordinance/PNAP and download them during the exam.

Dividing a question into small parts was also suggested as the candidates could still score some marks despite they do not understand the whole questions or every parts of the questions.

Recommendation to candidates in answering long questions:

Candidates should attend the Paper 1 lecture and use the lecture notes as a basis of their study. All topics included 2022 exam questions were covered in the lectures.

Paper 1 Subject Panel Chair

HKIA / ARB Professional Assessment 2022
Paper 2: Building Contracts, Professional Practice, Professional Conduct, Conditions of Agreement
Examiners' Report

STRUCTURE OF PAPER

Paper 2 is an open-book examination comprising multiple-choice and essay questions.

This year there was a change in the duration of the paper, which lasted for 3 hours (instead of 4) to align with that of Paper 1.

The number of multiple-choice (MC) questions in Section I was revised from 80 to 50 this year. Each MC question carried 1.2 marks.

For Section II on Essay Questions, candidates needed to answer one compulsory question for Part A and two out of three questions for Part B. The compulsory question for Part A carried 10 marks while questions for Part B Building Contract each carried 15 marks.

The passing mark for the whole paper is 50.

ASSESSMENT OBSERVATIONS

GENERAL
269 candidates took Paper 2. 221 candidates (82.16%) passed.

SECTION I - MULTIPLE CHOICE QUESTIONS
227 candidates passed (84.39%); the mean is 60.58 marks out of 100.
While the standard deviation is comparable to those of the previous years, the mean mark is higher than that of last year.

SECTION II - ESSAY QUESTIONS
220 candidates passed (81.78%). Passing rates of the essay questions are as follows:

Part A - Q1 – 75.46% (203 out of 269 candidates)
Part B - Q2 – 67.69% (132 out of 195 candidates)
Part B - Q3 – 88.42% (229 out of 259 candidates)
Part B - Q4 – 60.47% (52 out of 86 candidates)

Part A - Question 1 (Compulsory)

Question 1(a)

The question was in two parts, in which candidates were asked to:

i. elaborate on their understanding of Continuing Professional Development (CPD), and the minimum requirements for renewal of HKIA membership; and
ii. comment on the role of the architect in protecting the environment, with reference to the HKIA Code of Professional Conduct.

Most candidates answered the question competently and obtained good marks. Those who did not do well either failed to give an acceptable description of CPD, or relate the architect's role in environmental protection to the Code of Professional Conduct. Slightly over 75% of the candidates attained more than 50% of the total score, which compared well with the results of the previous years. As professional conduct was an important subject, candidates were advised to read the HKIA and ARB codes and related documents carefully, and acquire a proper understanding of them.

Question 1(b)
This question was about the possible commitment of Prevention of Bribery Ordinance (POBO). Most candidates were able to identify that Jeremy (the architect) would commit POBO, however, the discussions on Bosco (the one who offered the advantage) was limited.

Some candidates were unable to tell that Jeremy should obtain approval for accepting outside job while some mixed up the Code of Professional Conduct with POBO.

Part B - Question 2

Question 2(a)
Part (a) focused on the discussion and recommendation for the type of procurement method for the complicated curtain wall system and luxury interior fitting-out works of a 30-storey mixed use commercial building project. Candidates were asked to advise whether these works should be included as part of the Main Contract under domestic sub-contracts, or they should be awarded as nominated sub-contracts under the Main Contract.

Candidates were expected to discuss the advantages and disadvantages of both approaches, from different aspects, including but not limited to quality / cost / time implications to the overall project, working procedures of consultant team, and contractual relationships & responsibilities between different parties etc. They should subsequently make a final recommendation.

The performance of the candidates was generally satisfactory. However, only a small number of candidates mentioned the working arrangements within the consultant team - most of the discussion was concentrated on the Contractors' works.

Question 2(b)
Given the main contract and nominated sub-contract system were in lump sum fixed prices, the fitting-out Nominated Sub-Contractor (NSC) reported that the supply cost of the specified material was increased by 100% when compared with that indicated in the Bills of Quantities. Candidates were asked to discuss the contractual position and advise the possible courses of actions.

Many candidates managed to answer the NSC could submit alternative material, subject to the assessment and acceptance by the consultant team. Such alternative material should be in equivalent or better quality than the originally specified. The actual cost adjustment should be assessed by the Project Quantity Surveyor.

Only some candidates could point out that the Bills of Quantities were contract binding, and that the NSC should fulfill all contract requirements without any reimbursement, unless the fluctuations in the cost of labour and materials had been expressly allowed for in the Contract.

Part B - Question 3

The question consisted of 5 parts and was based on a scenario in which the Contractor was responsible for obtaining BD's approval and consent to commence foundation works. The Architect was responsible for obtaining approval of tree felling works which shall be completed before foundation works. Approval of both applications came later than the dates indicated in the contractor's programme and the tree felling application was approved later than the foundation consent. The Contractor changed his sequence of work to avoid idling, and was granted extension of time for the delay in the approval of tree felling application.

Question 3(a)
Candidates were asked to state 3 of the key factors in an architect's EOT assessment. Acceptable answers included whether the event was listed under clause 25, whether it was on the critical path of the programme, contractor's use of the best endeavour to prevent delay, submission of notices of delay and particulars of the cause of delay, concurrent delay etc. Most candidates obtained full marks with a simple and precise answer. Listed events, critical path and the contractor's best endeavour to prevent delay were the most common answers provided.

Some candidates considered the identification of faulty party for a delay and listed events as two different key factors. The two were essentially one factor in EOT assessment. Marks were only given for one factor in both part (a) and part (b) in these cases.

A few misunderstood the question and only listed three of the events under clause 25.1(3). Partial marks were given if anything relevant to the above-mentioned key factors was mentioned.

Question 3(b)
Following part (a), candidates were asked to explain how the three factors could be applied in the EOT assessment of the given scenario. The question itself had clearly provided the information and most candidates related the parts (a) and (b) well.

While the question did not invite candidates to discuss whether EOT should be granted, some candidates did so. Marks were given if they related the answer to the key factors listed in part (a).

A common mistake was citing the approval department of tree felling applications as a statutory undertaker under clause 25.1(3)(q) rather than a government department under clause 25.1(3)(t). A few wrongly stated that a master programme was part of the contract documents.

Question 3(c)
Candidates were asked whether the Client's comment on his EOT assessment should be sought before fixing a new Completion Date. The standard answer was no, as the Architect should remain impartial and make his own professional judgement. It was acceptable to answer that the Architect may choose to obtain the Client's view but must not be influenced since he should act impartially. It was obvious that some candidates had experienced in practice where EOT assessments were required to be presented to project

managers for comments. Full marks were given only if the answer mentioned the Architect's impartiality.

A few candidates' answers were fundamentally wrong by stating that the Architect should seek the Client's comments since the time and cost implications of an EOT grant were of the Client's interest. Some other candidates misunderstood the question, and mixed it up with the procedures for delay recovery measures, which were distinctly different from seeking comments on an EOT assessment.

Question 3(d)
Candidates were asked whether the Architect was authorized to revise a previously assessed EOT and change the previously fixed new Completion Date, and to state the relevant clauses. Some candidates misunderstood the question and referred to Clause 25.3(3) regarding new EOT grants or Clause 25.3(5) regarding reduction of scope instead of Clause 25.3(7) and/or (8).

Question 3(e)
In the given scenario, near the completion of the Contract the Client challenged that the Architect's assessed EOT was excessive compared to the actual delay. Candidates were to suggest how the Architect should respond to the Client's opinion.

Accepted answers included the Architect's elaboration of the assessment to convince the Client, possible time saving in delay mitigation by the Contractor, considerations in revision of previously assessed EOT, the Architect's request for site records from the contractor, etc. Full marks were given only if candidates mentioned the Architect's review of the previous assessment.

Part B - Question 4

This question was about a modular integrated construction (MiC) project for which the Contractor was responsible for the design and construction of the MiC modules. It aimed to test the candidates on their knowledge in demarcation of liability/responsibility of the Contractor and the Consultant team in the process of shop drawings approval and compliance.

In part (a), candidates were expected to refer to Clauses 2.1(f) and 2.1(2) for the general responsibilities of the Contractor under the Contract to prepare shop drawings with reasonable skill and care. On the other hand, the Architect shall be responsible for checking against the design intent and exercising reasonable duty of care in checking. Most of the candidates were able to spell out the basic responsibilities of both parties.

Based on part (b), most candidates could point out that since it was a design and construction project, the responsibility in following the design intent rested on the Contractor. The key here was to identify that the approval of shop drawings did not relieve the Contractor's liability to comply with the Contract – in this case, the overall width which was the design intent was clearly stated in the Contract. It was expected that the candidates could draw a conclusion based on their arguments presented.

In part (c) only some of the more comprehensive answers could point out that the case

became weaker on the Consultants side when there was a default in the Consultants team for the discrepancy found in the drawings. In spite of this, candidates should be aware that it would also be the Contractor's responsibility to inform the Architect under Clause 2.4(1) if he found a discrepancy between the architectural and structural drawings. The conclusion here would probably be similar to part (b) that the Contractor should be responsible, although the Client might choose to separately sue the consultants for negligence if any substantial cost or time implications arose due to the Contractor's rectification works.

Common mistakes for those who failed Question 4 were failure to discuss the general responsibilities of either parties under the Contract provisions, wrong concept that the approved shop drawings were Contract drawings, and stating that both parties shared the responsibility but without citing any reasons.

RECOMMENDATIONS TO CANDIDATES

In general, the candidates' standard in organization and presenting their knowledge in written English was acceptable.

The passing rate for the whole paper is promising this year. Although it is common for candidates to focus their preparation on specific topics like Extension of Time assessment, procurement strategies, etc., candidates are also advised to familiarize themselves with basic concepts under the Contract with regards to general rights and responsibilities of different parties. Without these fundamental principles, it would be impossible to move on to the next step of analyzing the situation and coming up with justified solutions.

Through exploring work opportunities or hypothesizing learnt principles to projects of different scales and natures, candidates should establish an open-minded yet structured mindset in coming up with flexible solutions for problems in different contexts. Generating questions to discuss with study groupmates or colleagues is a good way to start.

Candidates should read and analyze the question carefully, identify the issues and make proper references and applications of the learnt principles. The examiners are looking for discussions and reasoning based on contract principles. Direct copying from resources would not be awarded any marks.

Paper 2 Subject Panel Chair

HKIA / ARB Professional Assessment 2022
Paper 4 – Building Services and Environmental Controls
Examiners' Report

STRUCTURE OF PAPER

Paper 4, PA2022, followed the same format as adopted previously: an 'open- book' test with 60 multiple-choice questions. Passing mark was set at 65%.

Questions were worded in clear and straightforward language and answers with a combination of choices were used with discretion. Test topics closely followed the syllabus, viz. basic principles, sustainable design and environment, HVAC, fire services, plumbing and drainage, electrical services, lift and escalators, and acoustics, with emphases as outlined below:

1. Aspects of building services across different disciplines: both fundamental concepts and real-life applications a practising architect encounters daily;
2. Issues concerning safety, hygiene, human comfort and enjoyment;
3. Compliance with requirements of regulations and codes of practice; and
4. Sustainable design and environmental issues that are changing our lifestyles and shaping the future of the planet.

Essentially, questions were designed to test candidates' basic knowledge, skills and maturity in handling day-to-day situations, as leader of the building team.

As in previous years, a portion of the paper was sourced from questions that had been asked before. The intention of reusing past questions was to encourage candidates to study those familiar topics in greater depth, so as to enrich their technical knowledge in the respective fields.

ASSESSMENT OBSERVATIONS

Paper 4 tests were conducted twice, in July and October 2022. 'Mean marks' were 62.32% and 57.13%, with corresponding 'standard deviations' at 9.88% and 11.42%, and passing rates at 57.2% and 57.84%, respectively. One question was deleted from the October paper, due to printing error. The overall passing rate, adjusted to the actual number of sittings and successful candidates, was 70.8%, slightly higher than 64.04% of 2021.

The seminar series was structured with particular focus on environmental issues, as in previous years, and the recommended reading list included literature on these topics.

Generally, candidates tended to perform better in book-based questions, such as those on theories, fundamentals and basic knowledge, which they had learned through reading, but were generally less competent in answering job-based questions, even though answers could be found in published circular letters, manuals and codes of practice.

ADVICE TO CANDIDATES

Broadening of exposure to the related issues is the key to good performance. In addition to following the recommended reading list, candidates would do well to enhance their knowledge and preparedness by:

(a) Attending the 'Paper 4' seminars and related public events organised by the HKIA and other professional bodies;
(b) Reading through the Paper 4 Study Guide thoroughly before attending seminars and taking the test;
(c) Getting on-job experience and working in closer collaboration with building services and environmental consultants;
(d) Getting hands-on experience in complying with OTTV, RTTV, IAQ, BEAM Plus and other environmental assessment criteria;
(e) Reading through documents and records kept by other members of the project team, if on-job exposure, as mentioned in (b) and (c) above, is either inadequate or unattainable; and
(f) Taking the initiative to go through specifications, material and equipment submissions, shop drawings, method statements, etc, to obtain a general picture of how things work, even though technical details are normally handled by building services consultants.

Paper 4 Subject Panel Chair

HKIA / ARB Professional Assessment 2022

Paper 5 Building Materials and Technology
Examiners' Report

STRUCTURE OF PAPER

Paper 5 was an open-book examination comprising multiple-choice questions only. The paper consisted of 60 multiple-choice questions. The passing mark was set at 65%. The questions were set at a very similar format and variety in each examination. In 2022, the paper was set for two assessments in July and October to mitigate the Covid-19 risk.

Questions set for this year are consistent with the examination paper of the recent years. The content of this technology paper has a wide scope of professional and technical knowledge and covered the various trades of construction regarding materials and technology, actual practices including working procedures and detailing as well as law related construction questions such as the Building Ordinance and Regulations, PNAP, Codes of Practices, etc. Questions with diagrams were set so that more than one question can be asked out of it. Generally, the questions were quite straight forward and all based on Hong Kong local practices and experience. About half of the questions were paper questions of previous recent years.

ASSESSMENT OBSERVATIONS

The respective passing rates for the two assessments were: 48.83% and 47.17%. The overall passing rate of the paper had dropped compared with the immediate previous year though the level of questions was similar.

OUTLOOK FOR COMING YEAR 2023

The panel will maintain its standard of setting questions and insist on preparing new questions for the year 2023. However, more focus is given to the lectures for explaining clearly the scope of examination. Hence the lectures for this paper will generally cover the paper and guide the candidates for the examination.

ADVICE TO CANDIDATES

1. Study the materials and technology in terms of the various building trades.
2. Look at building control on construction and updates with the PNAP.
3. Study detail construction drawings of various components at the candidates' office or through local book references.
4. Learn the procedure of construction for various trades.
5. Read about how to write the specification of materials.
6. Attend all lectures given by the panel, study the Study Guide and the lecture notes to understand the scope of the assessment.

Paper 5 Subject Panel Chair

HKIA / ARB Professional Assessment 2022
Paper 6: Site Design
Examiners' Report

1. The Question

The test case was a **Civil Servants Quarters** with residential flats, a **Community Health Complex** including a clinic providing clinical services to public and a wellness centre, with individual ambulance lay-by for the clinic, and a **Public Refuse Collection Point** with access for refuse collection vehicle.

The site was located within an urban neighborhood of a new district at the fringe of a country park, surrounded by public housing estate, community facilities such as a park and community centre. It was bounded by an access road (Road A) to the south (providing 2 access points to the site) and a major road to the north (Road B), and common boundaries to the east and west. Several trees must be preserved within the site.

The impact of traffic noise from road A must be considered. Setback requirement for residential flats along road A was stipulated.
The task was to produce a preliminary master layout plan which includes a Community Health Complex (1 building), a Public Refuse Collection Point with direct access for refuse collection vehicle (1 building), several residential towers (number of blocks depending on prototypes selected and from calculations). 2 prototypes are provided and both types must be employed in the design. The height restriction is set at +325m mpd and +180m mpd for residential towers and GIC respectively.

Specific to the site was the need to have segregated access to the Public Refuse Collection Point from the residential flats and the Community Health Complex.

As per Paper 6 in recent years, it was specified that the design shall comply with the building separation, street setbacks and green coverage requirements in accordance with the Sustainable Building Design (SBD) Guidelines (PNAP APP-152).

The candidates were expected to demonstrate their competence in coming up with a sensible site arrangement that generally meets the statutory requirements and the design brief.

2. Answer Scripts

2.1 General

Like previous years, given the ample site area, the panel appreciates a wide range of design approaches in response to the design brief and the site.

The panel was satisfied with the performance standard this year. Most of the candidates managed to produce a layout that complies with the relevant statutory requirements and the design brief requirements and handle sensibly the disposition of buildings in relation to various constraints and characters of external spaces and especially the segregation between the Public Refuse Collection Point from the rest of the site.

2.2 Fundamental Non-compliances

A major non-compliance was prescribed windows when abutting site boundary, especially when residential towers were placed next to the park. Another issue was that the segregation required for the Public Refuse Collection Point from the rest of the development has been compromised even though some had already provided independent access to it, but somehow still connected it with the rest of the vehicular circulation system. The height of the development under the height restriction for residential flats means super high-rise could be used to reduce the number of towers on the site. However, refuge floors have to been provided and indicated in the site section.

KEY INDICATORS

The preliminary master layout plan of each answer script was carefully scrutinised by the assessment panel, which did not look for perfect design solutions and absolute compliance with the regulations, but a sensible approach and reasonable execution of site planning with a general understanding of the statutory requirements.

The following key indicators were specific to the Paper this year, which indicate the level of competence of the candidates in their sensibility, mastering of technical knowledge, understanding of statutory control, and skill of implementation:

(a) General compliance with development parameters – achieving the required development potential with correct number of building blocks, compliance with building height limit and SBD requirements, particularly on building separation.

(b) General compliance with the special design feature requirements – respecting the site constraint on noise issue, preservation of the trees, and to have the residential buildings set back from road A, with better view to park, and to avoid overlooking.

(c) Sensibility in handling the segregation of two functions as specified in the paper.

(d) Compliance with major statutory requirement – prescribed windows, and general compliance of EVA, ingress / egress points, etc.

(e) General compliance with traffic and circulation requirements, including the

adequate and sensible provision of individual ambulance lay-by and the loading / unloading bays as required.

(f) Sensibility in the optimal segregation of vehicular and pedestrian circulation, especially to the Community Health Complex, demonstrated by the arrangement of internal roads and pedestrian paths, drop off, and loading / unloading provisions, and access to each building.

3. WEAKNESSES

In addition to the fundamental non-compliance described in paragraph 2.2, the following major weaknesses were observed:

3.1 Non-compliance with Prescribed Windows requirements

(a) Failure in fulfilling the prescribed window requirements for residential towers, particularly in cases of placing the buildings directly against the east and west boundaries.

3.2 Insensible disposition

(a) Issues of residential towers overlooking each other's.

(b) Non-user-friendly / inaccessible leftover space between buildings.

3.4 Non-compliance with special design feature requirements

(a) No vehicular segregation between Public Refuse Collection Point from that of the residential development.

(b) Preserved trees being isolated and not integrated with the required open spaces.

3.5 Insensible internal road planning/ carparking

(a) Grossly over-provided internal roads leading to fragmented open space, excessive pedestrian crossings, and buildings surrounded by roads with disjointing external spaces within the development.

(b) Under-provision of internal roads leading to inadequate drop off and loading / unloading provisions for each block.

(c) Car parking spaces and loading / unloading bays provided directly from entrance/roundabouts. Poor provision of turning and reversing in the Public Refuse Collection Point.

3.6 Non-compliance with EVA requirements

(a) AASubstandard hammerheads and turning circles for fire fighting vehicles.

(b) Inadequate coverage of building facades for EVA, especially once the buildings were set back from Road ‘A’.

4. Examiner’s Recommendation

This year we had selected a site relatively common for an urban fringe situation within a new district. Urban grain was not well defined, and the development has the potential to reinforce the urban character of a new district. Not many schemes have this vision and the solutions proposed are rather technical. This was disappointing.

The nuisance of the Public Refuse Collection Point was a major concern, and we looked for innovative solutions to integrate it into the site planning and yet being isolated both physically and visually. Few had achieved this dialectical requirement of the question.

However, the technical aspects of development potential, statutory requirements – EVA, ingress / egress points, had been given proper consideration by most candidates. Even the provision of refuge floors had been integrated.

It has been noticed that there were cases with no regard or misunderstanding of the requirement of prescribed windows when the buildings were facing the open space. Prescribed windows must be respected and followed to common boundary even if there was a park to the other side of the boundary.

Again, like previous year, there were still some cases with dogmatic approach of keeping southern aspect for building with no regard to view, overlooking, noise and environmental hazard.

Paper 6 Subject Panel Chair

HKIA / ARB Professional Assessment 2022
Paper 7: Building Design
Examiners' Report

THE PAPER

This year's paper aims to evaluate the candidates' proficiency in designing a **Community Health Complex**, intended to serve as a hub for promoting health and wellness within the local community. The complex is to be composed of a **Community Clinic**, which provides clinical services, and a **Wellness Center**, which promotes public awareness of health and overall wellness.

The design brief calls for a comprehensive schematic design solution that possesses an architecturally pleasing identity, while satisfying all functional and statutory requirements. The candidates' solutions should also incorporate preliminary provisions for the building structure, building services, and internal transport facilities, among other considerations. The schematic design shall comprise the following principal elements and compile with the major design consideration:-

(A) **Community Clinic,** providing out-patient clinic services to the local community, shall be easily accessible and yet properly segregated from the other parts of the building complex for public health reasons. The Clinic shall comprise the following major components:-

- **Entrance Hall** with **Waiting Area, Registration / Shroff,** with direct connection to Ambulance Lay-by and General Lay-by;
- **Out-patient Consultation Rooms,** with natural lighting and ventilation;
- **Treatment Rooms, Nurse Stations, Dispensary and Patient Toilets,** etc.;
- **Medical Storeroom, Staff Changing / Toilets and Staff Panty** etc.;

(B) **Wellness Centre,** promoting public health and wellness, should be inviting and inclusive comprises the following components:-

- **Reception Area,** easily accessible from General Lay-by;
- **Health Education Centre** and **Office** with natural lighting and ventilation;
- **Multi-purpose Hall**, with 8m high clear headroom;
- **Rehabilitation Gym, Function Rooms, Cafeteria, Rehab Shop, Toilets and Changing Room** etc.;

(C) **Outdoor Area** of **Multi-sensory Garden**, provided as a welcoming public open space, and **Roof Garden**, well connected by accessible lift.

Submission requirements include Site Plans, Building Layout Plans and Sections at 1:200 scale. 3-Dimensional Illustrations or Detailed Calculations are not compulsory.

OVERALL OBSERVATIONS

The design brief necessitated the integration of the Community Clinic and Wellness Centre components within a unified structure. The requirement was to provide easy accessibility to the general public while maintaining strict segregation between the two facilities for the purpose of infection control and public health.

This stipulation presented a significant challenge to the candidates, demanding their comprehensive understanding of the spatial and functional relationship of each area, the anticipated circulation pattern of diverse groups of visitors, and the logistics of operations within the building.

In addition to the indoor uses, the candidates were expected to propose appropriate locations for the Multi-sensory Garden and Roof Garden, to create a symbiotic relationship with the indoor uses and enhance the visitors' experience. The panel expressed satisfaction with the variety of solutions demonstrated, which exhibited different approaches in responding to the challenge at hand.

KEY INDICATORS

The detailed layout of each answer scripts was scrutinized carefully and jointly by the Assessment Panel. The Subject Panel was seeking a sensible design solution that could meet the design brief while complying with building regulations.

The assessment was based on key indicators that reveal the candidates' competence in design sensibility, technical knowledge, and implementation skills:

a) General compliance with development parameters, including building height, plot ratio and site coverage requirements;

b) General compliance with major statutory requirements, including fire escape and emergency vehicular access;

   Particularly with regard to the arrangement of prescribed windows facing common boundaries with adjoining parks, and the arrangement of exit routes leading to the place of ultimate safety with the adjoining roads at ground floor;

c) General compliance with specific site constraints and design requirement;

   Particularly with regard to the proper segregation of the clinic and other public uses, the visitor’s arrival experience, and user-friendly internal circulations;

d) Logical planning of functional uses and effective allocation of usable floor area, without over-provision of corridor space, lifts, or escape staircases.

e) Sensible arrangement of external space, including the multi-sensory gardens and roof gardens, and its interfacing and relationship with the indoor functions.

f) Proper segregation and accessibility from the general lay-by, ambulance lay-by loading / unloading, and parking facilities ;

g) Integration of structural grid alignment, floor-to-floor height, and structural span;

h) Integration of building services plant rooms and its functional relationship;

SUGGESTIONS FOR IMPROVEMENT

The design panel is generally pleased with the variety of solutions formulated by candidates. However, the panel has also identified several areas for improvement and suggests the following recommendations:

Draftsmanship and Scale

While the panel acknowledges a general improvement in draftsmanship and legibility of the drawings, there remain issues with the scale of building components, such as unproportioned lifts or staircases, grossly oversized corridors or undesignated spaces. Future candidates are encouraged to practice extensively on their hand drawing skills, pay attention to proper line weight, annotation, and established drawing conventions to improve the drawings' clarity with minimal colouring.

Time Management

The panel has observed that some answer scripts started off strong with a detailed Ground Floor Plan, but were eventually submitted with missing floor plans or major sections essential for illustrating the overall design. This phenomenon is believed to be mainly caused by poor time management during examination. Future candidates are encouraged to practice more on past papers, have a clear plan for work sequence, and properly allocate time for understanding the brief, sketching bubble diagrams, working on preliminary layout, drafting final drawings, and proof checking.

Effective Planning of Functional and Circulation Space

Escape staircases are often over-provided, leading to poor efficiency and relationship to the building's functional and circulation arrangement. A comprehensive planning of the building profile with allocation of escape staircases at the most appropriate and efficient locations would benefit subsequent detailed planning of functional space. Candidates are encouraged to study more on real-life examples of effective planning.

Clear Structural Integration and Planning

Structural grids should be clear and integrated with functional space with sensible alignment. Large spaces such as function halls are expected to be column-free. The vertical arrangement of long span and short span functions between floors demands a greater sensibility for a more cost-effective solution to minimize structural transfer. Candidates are encouraged to attempt their best understanding of structural integration accordingly.

Sensible Back of House and Servicing Route

Apart from the principal functional uses, there would be requirements in the design brief to incorporate various back-of-house ancillary areas as well as loading/unloading facilities. A clear understanding of the back-of-house routing, starting from the loading vehicle to services lift, from services corridor to respective functional spaces, is equally important to the planning of front-of-house in a well-thought-out design.

Paper 7 Subject Panel Chair

HKIA / ARB Professional Assessment 2022
Paper 8: Case Study
Examiners' Report

STRUCTURE OF PAPER

Candidate has to provide a one-page synopsis and go on to complete a 20+20-page report. The Professional Assessment Handbook details the topics requirement and report format. The passing mark is set at 50%.

ASSESSMENT OBSERVATIONS

186 out of 214 candidates passed the Paper this year. The passing rate was 86.92%. Three candidates received zero mark due to plagiarism and will not be allowed to take PA2023 – Paper 8. Although the same project may be studied, other than for re-sitting candidates, the special topic has to be different from the one used in previous submissions. It was generally agreed that the case study remains a useful tool through which candidates could learn about the essential elements of project administration, even though the projects they were handling in the office may not give them sufficient exposure to the entire range of practical issues. Passing rates were usually high and it was not seen as a major source of anxiety for candidates.

RECOMMENDATIONS TO CANDIDATES

Carefully study and analyze available information on the project and talk to the project team for a thorough understanding, then write the report in your own words to cover what has been learned. High emphasis was put on candidate's ability to ask proper questions in order to give his/ her own appraisal of the various issues and problems relating to the project. Avoid common reasons for scoring low marks including the lack of candidate's own judgment and appraisal, study in sufficiently detailed, too many general statements and record of events, and failing to demonstrate the understanding of problems encountered in the project.

Special topic study gives candidates opportunity to research in depth a topic of interest. Candidate may continue to use previous reports as format and contents template but must refrain from copying multiple sentences and paragraphs, which will be readily detected by the plagiarism software.

Paper 8 Subject Panel Chair