

**HKIA / ARB Professional Assessment 2017**  
**Paper 1: Statutory Controls in Building Works**  
**Examiners' Report**

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## **STRUCTURE OF PAPER**

Paper 1 comprises 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**

343 candidates took Paper 1. 107 candidates (31.19%) passed.

### **FOR MULTIPLE-CHOICE QUESTIONS**

The mean mark in PA 2017 was the lowest compared to those in the last three years. Standard deviation in PA 2017 was comparable to that of last year.

146 candidates passed (42.57%); the mean was 55.15 marks out of 100.

### **FOR ESSAY QUESTIONS**

95 candidates passed (27.70%). Passing rates of the essay questions were as follows:

Q1 – 46.73% (157 out of 336 candidates)

Q2 – 44.44% (80 out of 180 candidates)

Q3 – 38.01% (111 out of 292 candidates)

Q4 – 27.16% (44 out of 162 candidates)

## **Question 1 (Compulsory)**

### **Purpose of the Question**

Question 1 was based on the hypothetical acquisition of a development site in a built-up urban district and was subdivided into four parts designed to test the candidates in the following areas:

**(a) Basic understanding of statutory zoning under the Town Planning Ordinance and application of control parameters to the specific site**

Candidates were tested for their competence in reading and understanding the Outline Zoning Plan and accompanying Notes, as applied to the site.

**(b) Basic understanding of land issues**

Candidates were expected to be familiar with certain restrictions under the land lease and the process of obtaining relaxation for redevelopment to a higher density. They were also invited to discuss issues relating to the disposition of a right-of-way within the site.

**(c) Application of controls under the Outline Zoning Plan and Building (Planning) Regulations**

Candidates were asked to determine the development potential of an acquired site of moderate size, for the purpose of a single, composite building.

**(d) Application of the same controls to determine the development potential of an enlarged site**

The total development was consisted of an earlier phase of the composite building, as already worked out under (c) above, plus an office building as the second phase, possibly on an interconnected podium.

**Candidates' Performance**

Parts (a) and (b) were relatively straightforward and candidates were expected to know the mechanism of complying with planning parameters and addressing land issues. This was generally reflected in the candidates' answers. The right-of-way presented some difficulty, in that different scenarios were possible and few candidates managed to discuss them in a detailed and orderly manner.

Part (c) was a straightforward situation and should be familiar to candidates who have studied past papers. The correct site classification, which was 'B', evaded some candidates who failed to recognise the adjacent public lane as accountable for a specified street. Some candidates also failed to demonstrate correct steps in assessing building height and percentage site coverage of the tower block. Compliance with SBD requirements were generally inadequately demonstrated.

Part (d) was the most challenging part of the question and few candidates managed to work out the problem as expected. Apart from making the wrong assumption for site classification, many also failed to reassess the plot ratio of the first phase of the proposed development in terms of the enlarged site.

**Summary of Evaluation**

The passing rate for this question was comparable to that in previous years. That many candidates answered Parts (a) to (c) reasonably well was evidence that working on past papers and attending workshops organised by HKIA were helpful. The disappointing performance in Part (d) might be an indication of candidates' lack of practical experience in local projects, particularly in the inception and scheme-design stages, and hence their inability to respond to a nuanced situation which called for a deeper understanding of the problems.

## **Question 2**

In this question, candidates were asked to demonstrate their knowledge and give their appraisal for the centralized processing system for building plans. The question was relatively simple and straightforward and the performance of candidates in this question was satisfactory.

For the first part of the question, candidates were expected to elaborate the purpose and operation of the system. Most of the candidates were able to describe the procedures and timeline of the system, but not a lot of the candidates were able to elaborate on BA's role and how comments from other government departments were dealt with in the process.

Most candidates were able to respond to the second part of the question in which they were asked to outline circumstances for direct submission to government departments.

Not a lot of candidates were able to table the advantages and disadvantages of the system with reference to time, cost and change management. Some candidates misunderstood that the total number of sets of plans to be submitted would be reduced under the system and hence administrative cost might be saved. For the disadvantage, candidates were expected to explain that not all departments concerned would give comments within the statutory periods, and different departments had different definitions and criteria for accepting key development parameters.

The last part was an open-end question asking for proposal to improve the system. Marks were given to sensible proposals.

## **Question 3**

This question mainly tested candidates' awareness of unauthorized conversion under the Buildings Ordinance (BO) and understanding of planning application under the Town Planning Ordinance. The performance of candidates in this question was barely satisfactory.

Part (a) of the question required candidates to discuss why unauthorized conversion contravened the Buildings Ordinance and might pose risks to the occupants. Most of the candidates could explain the different design requirements for industrial and domestic buildings laid down for building works in the Building Regulations. However, only some of the candidates could point out the unauthorized conversion was carried out without prior approval and consent from the Buildings Department (BD). The candidates should be aware that no retrospective approval and consent could be given.

In Part (b), many candidates performed well and listed out BD's preventive and enforcement actions against the unauthorized conversion in part (a).

Part (c) was about the means and procedures of change of building use under the Town Planning Ordinance. Most of the candidates had general knowledge of procedures and time required for amendment of plan under section 12A and planning permission under section 16, though a few candidates mistakenly answered section 12 instead of section 12A for amendment of plan and the procedures of building plans submission for A&A works. Some candidates were not aware that the question asked for procedures under the Town Planning Ordinance only and wasted time discussing the matter from the perspective of BO and lease.

#### **Question 4**

The question tested candidates' knowledge on the prescribed window requirements under the Building (Planning) Regulations. The performance of candidates in this question was not satisfactory.

Part (a) asked candidates whether certain windows in a hypothetical building faced the external air. Most candidates found this part difficult and did not know the following requirements of a rectangular horizontal plane:

- a. The height of an inclined rectangular horizontal plan was worked out by: total height of storeys + height of roof parapet - height of the prescribed window sill on the lowest storey, which is 1m above the room floor level. Quite a lot of candidates mistakenly thought that the height of a prescribed window sill is 1.1m above the room floor level.
- b. Where a service lane less than 4.5m wide existed adjacent to and parallel with a site boundary, the length of the rectangular horizontal plane was measured between a prescribed window and a line at 1.5m beyond the site boundary.
- c. The minimum length of the rectangular horizontal plane between a prescribed window and a site boundary was 2.3m.

Parts (b) and (c) asked candidates to draw dimensioned window elevations for a bedroom and a bathroom. These parts were easier to them. Most candidates were aware of the relationships between the floor area of the rooms and the aggregate superficial area of glass/ openable area in the windows. Some weaker candidates, though, wrongly thought that Building (Planning) Regulation 30 applied to bathrooms as well.

#### **RECOMMENDATIONS TO CANDIDATES**

**To obtain higher marks in the Paper, candidates are recommended to:**

- (a) Attempt to answer the required number of essay questions.
- (b) Attend the lectures and workshops arranged by HKIA. Prepare for the lectures and familiarize themselves with the materials and topics covered.
- (c) Get on-the-job experience and site experience, and go through a Hong Kong project from the inception to completion stage if possible.
- (d) Discuss with other colleagues on what they have done, and reflect on how statutory controls have affected their projects.
- (e) Keep abreast of the times, and observe and reflect on the impact of government policies on the built environment.

Paper 1 Subject Panel Chair

## **HKIA / ARB Professional Assessment 2017**

### **Paper 2: Building Contracts, Professional Practice, Professional Conduct, Conditions of Agreements Examiners' Report**

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#### **STRUCTURE OF PAPER**

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

The MC section had 80 multiple-choice questions. Each MC question carries 1 mark. The passing mark was set at 65%.

Candidates needed to answer 1 compulsory essay question for Part A Professional Practice, Code of Professional Conducts and Conditions of Agreement and 2 out of 3 essay questions for Part B Building Contract. Question for Part A carried 15 marks while questions for Part B Building Contract each carried 15 marks. The passing mark was set at 50%.

#### **ASSESSMENT OBSERVATIONS**

##### **FOR WHOLE PAPER**

240 candidates took Paper 2. 57 candidates (23.75%) passed.

##### **FOR MULTIPLE CHOICE QUESTIONS**

75 candidates passed (31.25%); the mean is 58.8 marks out of 100.

The mean mark in PA 2017 was the lowest compared to those in the last three years. Standard deviation in PA 2017 is comparable to that of last year.

##### **FOR ESSAY QUESTIONS**

34 candidates passed (14.17%). Passing rates of the essay questions are as follows:

- SQ Part A - Q1 –10.83% (26 out of 240 candidates)
- SQ Part B - Q2 – 47.31% (88 out of 186 candidates)
- SQ Part B - Q3 – 16.51% (36 out of 218 candidates)
- SQ Part B - Q4 – 46.88% (30 out of 64 candidates)

#### **Part A Question 1**

##### **Question 1a**

Most candidates did not have clear picture on what was the fee charge for Section 16 Application. Candidates were weak in stating the rights of Architect and Client under HKIA agreement and the procedure of termination.

##### **Question 1b**

Only a few number of candidates managed to understand the question clearly. Candidates were weak in applying the HKIA code of Professional Conduct and addressing this question properly.

##### **Question 1c**

This was the easiest question and those attended lecture could successfully obtain higher

marks. Again, candidates were weak in reasoning and justification to back up their answer.

## **Part B Question 2**

### **Question 2a**

Most candidates did not have clear concept about the contract clauses. They just re-wrote clause 29.2 of the SFC to indicate the "Reasonable Objections" that the contractor shall not be required to enter into a sub-contract with a sub-contractor.

Only a few candidates were able to quote the clause 24.2 of the SFC that the contractor had to pay the Employer LD in case of delay of the completion of the works notwithstanding such delay was totally due to sub-contractor's fault.

Most of the candidates were just based on their perception to make decision whether the contractor had the right to object the nomination.

Some candidates were able to advise possible and practicable solutions. Most of them suggested the sub-contractor to withdraw the cap of LD or suggest to obtain the Employer's permission to withdraw the nomination. However, only a few candidates could suggest to relax the liability of the contractor for the LD to the same cap amount in case of any delay of the works that was solely due to the default of the sub-contractor.

### **Question 2b**

There were a few blank answer books. This might be due to the reason that the candidates did not have enough time to finish answering all the questions or they did not have a clue after attempting to answer the question.

About a half of candidates understood the final schedule of defects shall be issued not later than 14 days after the expiry of the Defects Liability Period. Thus, these candidates could realize a day after the expiry of the Defects Liability Period shall not remove the Architect's authority to record defects in the final schedule.

About a quarter of candidates understood the fact that the defects not included in the Schedule of Defects shall not rule out the Contractor's obligations under the SFC.

Some candidates just focused on the safety measures and the methods of repair works. They forgot the main purpose of this question was to define whose liability to rectify the defects.

## **Part B Question 3**

1. Q3a requested the candidate to issue an EoT award. Some candidates failed to state the clause under the Conditions of Contract that was granted, the revised date for completion and signed the letter under the capacity of the Architect.
2. Q3b requested the candidate to explain the rationale in granting of EoT, and due to "neutral delays" attributable to neither the Employer nor the Contractor under the Conditions of Contract to the House Master. Some of the candidates failed to read the question. Only merely stated the EoT provisions/mechanism was not sufficient and failed to clearly explain the rationale. Candidates scored badly on this part.

3. For Q3c & d, candidates should be able to list out the consideration for a EoT assessment, i.e.
  - Architect is to be fair and to give consideration to the Contractor's claim within a "reasonable time";
  - Actual delay must be established, the affected works must be on the critical path affecting completion of the Works;
  - Contractor must take steps to mitigate the delay;
  - There is no overlapping award;
  - Architect is to take into account all circumstances known to him at the time the assessment is made;
  - Contractor's right to request a review of an EoT award etc.
  - Architect shall assess and grant extensions of time during the course of the Contract if the Contractor is fairly entitled to the extensions under the provisions of the Contract.
  - For each cause of delay which the Architect should consider the Contractor is fairly entitled to an extension of time;
  - The Architect shall grant such extension of time and shall state the extended period in dates in writing;
  - No party should interfere with the Architect's professional independence.

#### **Part B Question 4**

1. Question 4 carried 15 marks.
2. Out of the 64 scripts, 30 candidates achieved 7.5 marks or more, representing 47% passing rate. 34 candidates achieved less than 7.5 marks.
3. The lowest mark is 0 while the highest score is 12, out of 15.
4. The average mark (Total marks divided by number of scripts) is 6.6.
5. Out of these 34 who achieved less than 7.5 marks, 13 candidates (38%) did not physically answer all sub-questions. Even some candidates answered all sub-questions, some answers were only two or three sentences, which is considered inadequate.
6. The question presented a real-life scenario whereas problem arises because of a host of things that people might have done wrong or overlooked. Finding a way forward required a diagnosis of the circumstances and an analysis of the issues, including duties and responsibilities of the parties involved. The question required the candidates to have a basic conceptual contractual and technical understanding, then to analyze the situation and problem, come up with options and suggestion. In the light of the above, the candidates then recommended what could be done as a practical way forward.
7. Sub-question 4(i) requested the candidates to explain the circumstances and identify what might have gone wrong. Then the candidates were required to discuss the duties and responsibilities of the parties in the light of the technical and contractual processes.

Most candidates understood the basics and were able to explain. But there were some who appeared to have no understanding about the workflow from architect's tender drawing, to shop drawing approval process, and to mock-up and installation on site.

Some were confused about the relationship between the parties like architect, main contractor, electrical sub-contractor, and window sub-contractor. Some just jumped to the conclusion that the problem is due to a particular party's incompetency or mistake, rather than addressing the technical and contractual issues which could be revealed by an analysis of the situation.

As such, some candidates could not explain the duties and responsibilities of each party in the light of the contract administration process.

Some candidates quoted that the architect is not responsible for the window design while some were mixed up with those of the contractor in terms of design duties and responsibilities.

This illustrated that the candidates had some basic understanding but not a coherent concept.

Interestingly, there were different answers regarding the major fault party. Only very few candidates could mention tort as an aspect of the duties and responsibility. It would appear the candidates were weak in the analysis of issues given a circumstance.

8. Sub-question 4(ii) requested the candidates to discuss and to come up with a practical way forward suggestion. Some candidates could answer with confidence. But some candidates just could not suggest sensible and practical way forward solution and the answers were conflicting with the arguments. It would appear that some candidates had little real life experience in order to offer sensible and practical way-forward solution.
9. Very few candidates were able to use contractual keywords like duty of care, diligently, unforeseen, responsibility, reasonable, etc in their argument. Those who were not familiar with these contractual or legal keywords had difficulty in writing their argument.
10. Some of the answers, like only three sentences, were far too short to adequately address the issues.
11. Some candidates could not write in clear and simple English in essay format while there were some with very poor handwriting making it very difficult to read. Some candidates even spent time repeating the question.

## **RECOMMENDATIONS TO CANDIDATES**

- (a) Candidates are advised to fully understand the rationale behind the contract terms for fully utilize the knowledge acquired at works as Architect in future.

(b) Lack of relevant experience on contract / condition on engagement of the majority of candidates was noticed as from their answers.

Paper 2 Subject Panel Chair

**HKIA/ARB Professional Assessment 2017**  
**Paper 3 - Building Structures**  
**Examiner's Report**

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## **STRUCTURE OF PAPER**

Paper 3 was an open-book examination comprising multiple-choice questions only. The paper consists of 60 multiple-choice questions. The passing mark is set at 65%.

This was the sixth year in which three assessments were carried out for Paper 3 in March, June and September respectively. The paper for each of the 3 assessments was set in a similar format and structure covering a variety of topics.

Questions covered various aspects of building structures, including general structural principles, different structural forms and systems, foundation systems, excavation and lateral support systems, load paths and force diagrams, practice and construction, and a case study. Diagrams were included as appropriate for better understanding of the questions.

## **ASSESSMENT OBSERVATIONS**

The passing rates for the three assessments were 59.46%, 57.47% and 38.10%. The overall passing rate of Paper 3 in PA2017 was 70.13%, which was similar to that in PA2016.

The “mean mark” for the three assessments this year was 65.2%, 64.4% and 60.1% respectively, with a “standard deviation” ranging from 11.6% to 12.78%.

The “mean mark” of the 1<sup>st</sup> and 2<sup>nd</sup> quarter assessments is close to the passing mark of 65%, which indicates that the average candidates' performance was generally up to the required standard; while the lower “mean mark” of the 3<sup>rd</sup> quarter assessment indicates that the candidates had a lower general performance, which corresponds to the low passing rate in the 3<sup>rd</sup> quarter assessment. A reasonable “standard deviation” indicates that the assessment had generated a broad range of marks, and was fair, and effective in differentiating the abilities and depths of knowledge of the candidates.

It was also observed from the results that the candidates had shown weaknesses in certain areas, including the less common and less conventional structural systems (such as suspension structures, trusses, etc), and construction and practice (such as real-life application of different structural systems, basement construction, simple floor framing, etc). It was also observed that the results and general performance on the questions on the basic structural principles and concepts (such as load path, simple bending moment diagrams, etc) were also not very satisfactory.

## **RECOMMENDATIONS TO CANDIDATES**

On top of the studying the recommended reading list, the candidates are also encouraged to gain more knowledge and exposure by the following means:-

- (a) Candidates are recommended to attend the Professional Assessment Seminar / Lecture Series organized by HKIA, not only for the Professional Assessment but also to broaden their knowledge.
- (b) Candidates are encouraged to get more on-job experience, guidance from office supervisors and seniors, and learn through better communication / coordination with structural engineers at work.
- (c) Sharing of knowledge and experience with fellow colleagues and graduates is also encouraged, and should be helpful if job exposure is limited.

Paper 3 Subject Panel Chair

**HKIA / ARB Professional Assessment 2017**  
**Paper 4 – Building Services and Environmental Controls**  
**Examiners' Report**

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**STRUCTURE OF PAPER**

Format of the paper and distribution of the questions under the major topics were similar to those of the previous session. About 50% of the questions were culled from past papers and a good proportion of them were based on acquaintance with the relevant codes of practice and general knowledge in building services that an architect is supposed to master.

**ASSESSMENT OBSERVATIONS**

The overall passing rates, at 34.46%, 46.95% and 43.36% respectively for the March, June and September 2017 sessions, are compatible with recent trends. Candidates are advised to become familiar with the provisions of various codes of practice covered under the syllabus and to study the notes handed out at the PA lectures for this paper.

**ADVICE TO CANDIDATES**

Knowledge acquired through memory work may be helpful in answering some of the questions, particularly those based on familiarity with everyday, general practice. The other questions are mostly designed to test candidates' analytical power, honed by exposure to real problems encountered at work. The four major disciplines in building services: electrical, HVAC, plumbing/drainage and fire services, deserve special attention, as they are closely related to the architect's competence in problem solving and integration of design.

Paper 4 Subject Panel Chair

**HKIA / ARB Professional Assessment 2017  
Paper 5 Building Materials and Technology  
Examiners' Report**

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**STRUCTURE OF PAPER**

Paper 5 was an open-book examination comprising multiple-choice questions only. The paper consists of 60 multiple-choice questions. The passing mark is set at 65%. The questions are set at a very similar format and variety in each examination. This is the sixth year that the paper was set for three assessments in March, June and September.

The content of the paper covers 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 are quite straight forward and all based on Hong Kong local practices and experience. About half of the questions are past paper questions.

**ASSESSMENT OBSERVATIONS**

The respective passing rates for the three assessments are: 50%, 61.17% and 54.55%. The passing rates and degree of difficulties had been consistent with papers 3 and 4. The overall passing rate of the paper (75.69%) had increased when compared to that in PA2016 (60.31%).

**OUTLOOK FOR COMING YEAR 2018**

The panel will maintain its standard of setting questions and insist on preparing new questions for the year 2018. However, more focus is given to the lectures for explaining clearly the scope of examination.

**RECOMMENDATIONS 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.

Paper 5 Subject Panel Chair

## **1. The Question**

The test case is a Movie Village in a flat, irregularly shaped site that is bounded by roads on 3 sides, and abutting an adjacent lot to the east and south east. The task is to produce a preliminary master layout plan which includes a movie studio and visitor centre (1,000m<sup>2</sup>), a hotel (4,800m<sup>2</sup>), and a number of shooting sceneries, all accessible by public. It also includes minimum 3 nos. of staff quarters (4,000m<sup>2</sup>) as private development, together with a covered / basement car park (for 100 motor vehicles). A prototype of hotel and staff quarter each is given to the candidates. The height restriction is set at 56mPD.

A number of external spaces in the form of various shooting sceneries characterise the Paper this year, which include the following:

- (a) Central promenade lined with shop houses and coffee shops on both sides;
- (b) Old Chinese village with a temple;
- (c) Castle wall with moat; and
- (d) Bamboo Forest.

It is also a requirement that the hotel and quarters shall be visually screened as far as possible from exterior sceneries (b) & (c).

As per Paper 6 in recent years, it is 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 are 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**

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

The panel is generally satisfied with the performance standard this year. The majority of the candidates managed to satisfy generally the relevant statutory requirements and the design brief requirements, and handle sensibly the disposition of buildings in relation to various characters of external spaces.

### **2.2 Fundamental Non-compliances**

Despite special reminders in the Design Paper seminar, there are still a few cases of grossly under-development (mostly due to incorrect calculation of the number of blocks from the required floor areas and building height restriction), which are considered fundamental breaching of the question requirements and are not acceptable.

## **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 are specific to the Paper this year, revealing 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 – maximising development potential with correct number of staff quarters and hotel, compliance with building height limit and SBD requirements, particularly on building separation.
- (b) General compliance with the special design feature requirements – provision of external sceneries for shooting of movies with proper circulation route, while without conflict with other buildings and internal roads.
- (c) General compliance with major statutory requirements – prescribed windows, EVA, ingress / egress points, etc.
- (d) Sensibility in disposition of hotels and quarters to exploit views, and to avoid close proximity to the shooting sceneries.
- (e) General compliance with traffic and circulation requirements, including the adequate and sensible provision of car parking spaces and loading / unloading bays as required.
- (f) Sensibility in the optimal segregation of vehicular and pedestrian circulation, demonstrated by the arrangement of internal roads and pedestrian paths, car park, drop off, and loading / unloading provisions, and access to each building.
- (g) Sensibility in arranging the relationship of various external spaces with buildings, and the pedestrian linkages.

## **3. WEAKNESSES**

In addition to the fundamental non-compliance described in paragraph 0, the following major weaknesses are observed:

### **3.1 Non-compliance with SBD requirements**

Disposition of the quarters/ hotel in cluster without proper separation between buildings, so that the Projected Façade Length (LP) exceeds 60m.

### **3.2 Non-compliance with prescribed window requirements**

Failure in fulfilling the prescribed window requirements for the quarters, particularly in cases of placing the buildings right along the common boundary with adjacent lot.

### **3.3 Insensible disposition**

- (a) Quarters and hotel seriously overlooking each other, or in close proximity to the shooting sceneries without buffer and visual screening (3.4(b)).
- (b) Non-user-friendly / unusable / non-accessible leftover space between blocks.

### **3.4 Non-compliance with special design feature requirements**

- (a) Substandard provision of external sceneries.
- (b) No provision of buffer space between external sceneries and quarters/ hotel.
- (c) Disjointed external sceneries separated by quarters, mixing public and private spaces.

### **3.5 Insensible internal road planning/ carparking**

- (a) Grossly over-provided internal roads leading to fragmented open space, excessive pedestrian crossings, and disjointing buildings with 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 roundabouts, or even accessed from external roads. Poor provision of turning and reversing in carpark and loading/unloading bays.
- (d) Vehicular access not complying with XYZ points (e.g. provision of additional ingress/egress points beyond the permitted location).
- (e) Inappropriate location or grossly inadequate length and headroom for ramp to basement carpark.

### **3.6 Non-compliance with EVA requirements**

- (a) Substandard hammerheads and turning circles for fire fighting vehicles.
- (b) Inadequate coverage of building facades.
- (c) Excessive internal roads for EVA at the expense of open space where the buildings can be easily reached from the public roads

**HKIA / ARB Professional Assessment 2017**  
**Paper 7: Building Design**  
**Examiners' Report**

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**The Paper**

This year's Paper aims to examine the candidates' competence in the design of a Motion Picture Centre for Hong Kong Filming Industry. Apart from the ability to integrate different functional requirements, the question also aims to test our candidates' sensitivity to provide a reasonable solution to incorporate preliminary provisions and requirement for building structure, building services, utilities etc.

The design brief calls for a schematic design for a Motion Picture Centre for Hong Kong Filming Industry, which comprises the following principal elements:-

1. Private studio facilities; and
2. Visitor gallery facilities for use by the public.

Vehicular drop-off and carparking spaces within the site are required.

Submission requirements are limited to layout plans and sections. 3-dimensional illustrations and calculations are not required.

**The Answer Scripts**

The Subject Panel agreed that the design brief involved a variety of filming studio facilities accommodation which may not be familiar to the gallery visitors, and therefore posed challenge in integrating different functional filming studio requirements in a building. As a result it was hard to find an answer script that could be considered free from major flaws.

**Key Indicators**

The detailed layout of each paper was scrutinized carefully jointly by the assessment panel. The Panel was not looking for brilliant architectural design, but a sensible design solution that could meet the design brief, and in general compliance with the building regulations.

The Panel made the assessment based on the following key indicators that can reveal the competence of the candidates in their design sensibility, level of technical knowledge and skill of implementation:

- a) General compliance with development parameters – mainly building height and site coverage requirements;
- b) General compliance with major statutory requirements – including fire escape and EVA;
- c) General compliance with specific site constraints – including provision of separate entrances, and reasonably segregated vehicular and pedestrian

accesses;

- d) Sensibility in arrangement for disposition of academic facilities, in relation to public accessible restaurants, and classrooms;
- e) Integration of a long-span structure – auditorium;
- f) Sensibility in arrangement of reasonably segregated vertical circulation to the public and academic facilities;
- g) Sensibility in the design of floor-to-floor height, structural system and disposition of building services spaces.

## **ASSESSMENT OBSERVATIONS**

The design panel is generally pleased with variety of solutions formulated from different understanding of the design problem. Different from previous years, the candidates are required to demonstrate to a prescribed visitor experience that lead to paper Merit.

- Most of the candidates were able to demonstrate the sequential spatial and functional relationship. Some solutions bear interesting architectural merits.
- Separation of entrance for visitor. Similar to question papers from previous years. Most candidates were able to demonstrate asked to differentiate human traffic between public and building users.
- Design panel has recognized general improvement in draftsmanship. Nevertheless, there is still issue of drawing scale in building elements, eg. Lift and staircases. We encourage future candidates to practise their hand sketches as much as possible, paying attention to line weight and drawing clarity without too much coloring.
- Sustainable Building Design SBD is observed in general with correct street setback etc. We encourage candidates to do their dimension marking for examiners' easy checking

## **Issues to improve**

- **Serving Route.** As loading bays are required in the design problem, reasonable illustration of the routing starting from the loading vehicle to respective functional spaces is expected. In many cases, there are unclear servicing paths that demonstrate poor functional relationship between workshops and studio. Also unclear servicing path to serve cafeteria.
- **Structural integration.** Structural grids should be clear and integrated with functional space. Sound studios are expected to be column free. This has been a consistent issue through many years that the candidates are encouraged by attempt their best understanding of structural integration accordingly.

- Means of escape. In some solutions are over provided due to complicated circulation pattern within the building. This become a design issue that shows poor efficiency and application of building elements.
- Irregular shape for sound studio. Proportion of studios should be observed. It should be general enough to allow flexibility for function inside. In some cases, the studio space was bent to suit form of building. Other cases, they are just left over space from the building plannings.
- Poor vehicular swap path for both private car and loading truck. Please observe driveway dead-ends and dimension of driveway in front of parking space either in single loaded or double loaded situation.

Paper 7 Subject Panel Chair

**HKIA / ARB Professional Assessment 2017  
Papers 8 Case Study  
Examiners' Report**

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**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**

136 out of 168 candidates passed the Paper this year. The passing rate is 81%. Five candidates received zero mark due to plagiarism and will not be allowed to take PA2018 – Paper 8.

Although the same project may be studied the special topic has to be different from the one used in previous assessments.

It is generally agreed that the case study remains a useful tool through which candidates can learn about the essential elements of project administration, even though the projects they are handling in the office may not give them sufficient exposure to the entire range of practical issues. Passing rates are usually high and it is 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 is put on candidate's own appraisal of the various issues and problems relating to 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 have to refrain from copying multiple sentences and paragraphs, which will be readily detected by the plagiarism software.

Paper 8 Subject Panel Chair

## **STRUCTURE OF PAPER**

This paper is a 30-minute interview conducted primarily in English and each candidate is interviewed by a panel consists of three interviewers. This is the sixth year that the new policy on using Cantonese for technical terms and for supplementary purpose with the permission of the Chairperson of the Panel of Interviewers is implemented.

This is also the sixth year to test candidates on their Case Study reports in the Professional Interview. Interviewers reminded the candidates that their case study reports were also used as a referencing material in the interview. Candidates may choose projects not handled by themselves and Interviewers were reminded to cross reference with the candidates' logbooks.

Interviewers were advised to make sure the candidates have digested the followings in doing their Case Study reports:

- Statutory Control
- Cost Control
- Time Control
- Safety
- Quality Control
- Design Quality Control
- Building Contracts

Candidates' professional maturity and adequacy of the practical experience as recorded in the Logbook were assessed by the interviewers. Questions may cover topics related to Buildings Ordinance, Building Regulations, other related ordinances and Codes of Practice, construction knowledge, Building Contract and Contract Administration and Professional Ethics. Candidates' confidence in answering questions was also looked for by interviewers.

## **ASSESSMENT OBSERVATIONS**

Among 102 candidates, 74 candidates (representing 73%) passed the paper in this March 2018 attempt (for PA2017), which is slightly higher than the attempt in March 2017 (70.27%).

From the report of Interviewers on failed candidates, most candidates were lacking knowledge in Building Contract and Building Ordinance and failed to demonstrate to the interviewers their competency to work as an Architect. The candidates were also lacking confidence and general knowledge; and were not well prepared for the Interview. The weaknesses may be attributed to their lack of practical experience in local projects.

## **RECOMMENDATIONS TO CANDIDATES**

- To reinforce his/her understanding of a project selected for case study, a candidate is recommended to discuss regularly with the advisor of what he/she has observed in the case study and to consult the advisor the rationale behind certain solutions to various problems, instead of just reporting to his/her advisor what have been done during the period of review.
- As reflected in the summary, main reasons of failure of some candidates in the examination attribute to the lack of practical construction and contract administration experience, which may be a result of the reducing number of local projects. Candidates are advised to look at their job exposure in particular the chance of getting involved in local projects before they commit or engage to the practice during their internship period.

Professional Interview Subject Panel Chair