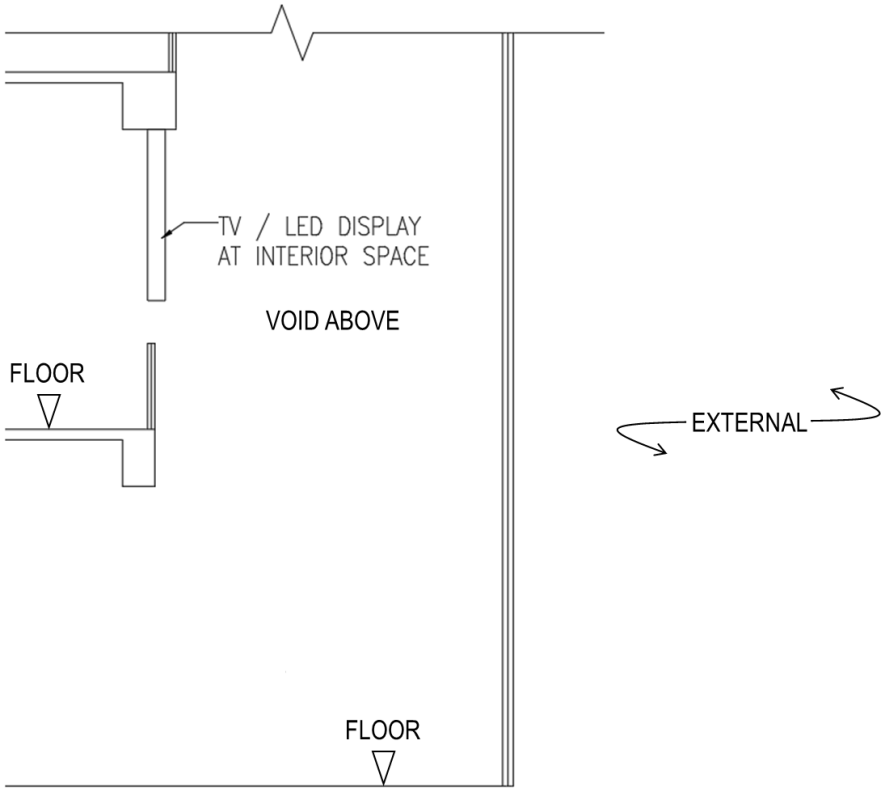
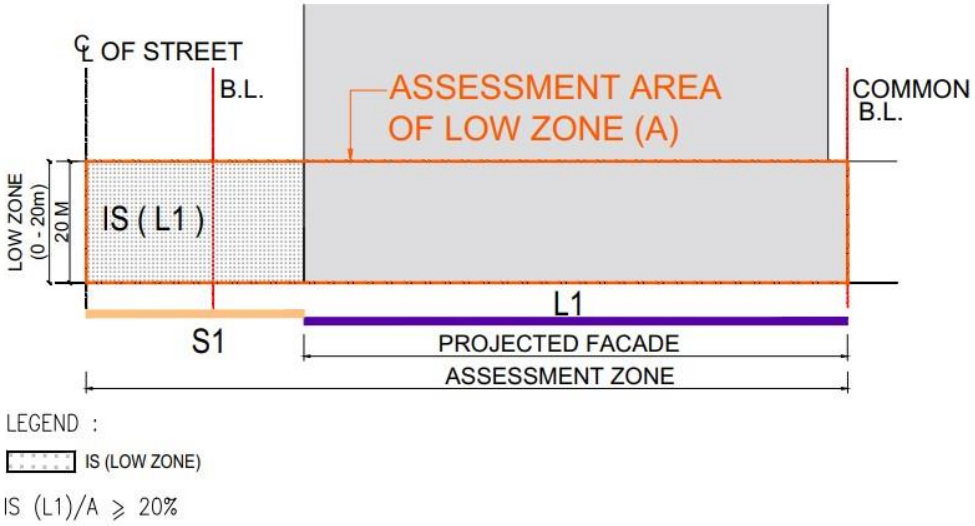
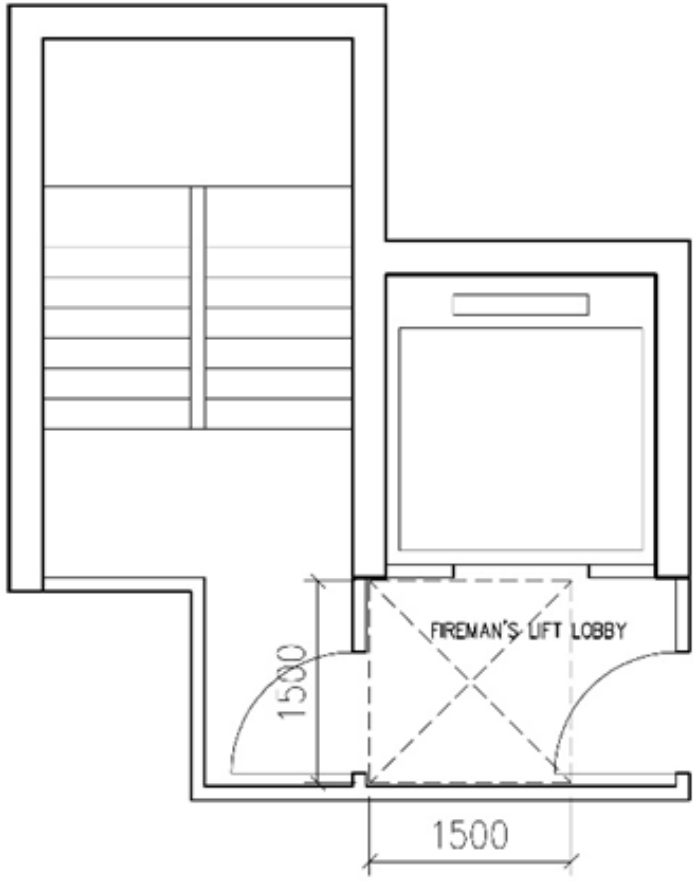
Summary of Items Discussed in APSEC Discussion Forum (ADF) 4/2024 on 22 November 2024

	Items proposed by Convenors for Discussion	Summary of Discussion and BD's Response
	Items raised by HKIA	
1.	**<u>Large-scale Televisions and LED Displays in Internal Space</u>** It is our understanding that large-scale televisions and LED displays installed at interior space that require structural submission to BD are not 'signboard (招牌)' as defined under the Buildings Ordinance (BO). Thus, requirements under PNAP APP-126 is not required to be complied with for such televisions and LED displays. Please advise if our understanding is correct. Example of televisions and LED displays in interior space refer to the sectional diagram below:	BD advised that pursuant to section 2 of the BO, 'signboard' means a hoarding, framework, scaffolding or other structure erected solely for the purpose of displaying any advertisement, making any announcement or notification, or displaying any visual image or other information. A signboard with a TV wall or LED display or the like (whether it was fixed to the external wall and erected in a building) was designed to be fixed to a supporting frame, the installation of such display should follow the manufacturer's specifications and recommendations. The fire safety requirements for LED display signboards stipulated in Appendix A of PNAP APP-126 were intended for the signboards installed at the exterior of buildings only, and were not applicable to those installed in interior spaces of buildings.

		
2.	**<u>Building Separation Requirement – PNAP APP-152</u>** Referring to paragraph 4.2 of Appendix B to PNAP APP-152, not less than 2/3 of the required permeability (*P*) shall be provided by intervening space (*IS*) between the ends of the projected building facades and the adjacent site boundaries or, where the site abuts a *street* or a lane, the centreline of adjoining street or lane, and that such *IS* shall provide a separating distance	BD advised that HKIA's understanding was incorrect. The provision of separating distance (*S*) was one of the design requirements for building separation and should be complied with. There should be *S* of not less than 7.5 m wide between the projected building facades and the site boundaries or the centreline of the adjoining streets or lanes.

	(*S*) of not less than 7.5 m wide. It is our understanding that if the required *S* can be sufficiently provided by one end of the projected façade, there is no requirement to provide *IS* on the other end of the projected façade. Below is a diagram illustrating the described scenario at the low zone, where there is no *IS* provided on the right-hand side of the building. Please confirm if our understanding is correct.  	Figure B12 of Appendix B of PNAP APP-152 was relevant. This requirement had been in effect since the first issue of PNAP APP-152 in January 2011.
3.	**<u>Mandatory Circulation of Final Amendment of General Building Plans (GBP) to the Fire Services Department (FSD) after Initial Inspection for Occupation Permit (OP) Application</u>** The application for inspection and testing of fire service (FS) installations and equipment for FSD's issuance of the Fire Services Certificate (FS172) is usually made concurrently with the submission of final GBP amendment	BD advised that referral to FSD under centralized processing of building plans was clearly stated in PNAP ADM-2. In the Electronic Submission Hub (ESH), building plans would be sent to FSD

	after the site inspection by BD for OP application. Such submission of the final GBP amendment usually involves only minor layout adjustments and does not affect FS installations. On processing the issuance of FS172, if FSD receive the referral of GBP amendment submission, the ongoing processing of the issuance of FS172 may be adversely affected, possibly requiring the re-submission of Form FSI/501 to FSD for the re-application for inspection and testing of FS installations and equipment and re-inspection by FSD. If the Authorized Person confirms that the said GBP amendment submission does not affect the FS installations of the project, can BD consider that referral of such GBP amendment submission to FSD is not necessary?	automatically. BD would further discuss with FSD to explore whether referral of those final GBP amendments involving minor layout adjustments only and not affecting FS installations to FSD would not be necessary.
4.	**<u>Fireman's Lift Lobby Clear Dimensions</u>** Clause D11.1 of the Code of Practice for Fire Safety in Buildings (2011) (June 20223 Edition) (FS Code) states that "*Each point of discharge from a fireman's lift to the floor served, except at the fires service access point in Subsection D7, should be through a lobby having a floor area of not less than 2.25 m^2 and a minimum dimension of 1.5 m*". It is our understanding that the minimum dimension of 1.5 m shall be measured between walls of the Fireman's Lift Lobby, instead of from the door swing of the lift lobby, as indicated in the diagram below in which the door swing encroaches on the 1.5 m x 1.5m space.	BD advised that the proposed layout was not acceptable as the lobby door in its fully open/end position(s) would obstruct/jeopardize the provision of minimum dimension of 1.5 m in the said lobby.

	Please confirm if our understanding is correct.  	
5.	**<u>Gross Floor Area (GFA) Concessions for Air Conditioning (AC) Plant Rooms serving Essential Plant Rooms</u>** According to paragraph 8(b) of PNAP APP-42, BD considers "air handling units (AHU) not exceeding 4% of the total <u>GFA</u> of each floor on which they	BD advised that according to PNAP APP-84, the maximum area of TBE room that could be disregarded from GFA calculation had already

	are situated" reasonable. For essential plant rooms which are not accountable for GFA, such as telecommunications and broadcasting (TBE) room and switch room, which required air-conditioning to maintain proper functioning of the equipment, would BD consider the AC plant rooms serving these essential plant rooms also as part of the essential plant rooms for disregarding from the calculation of GFA? If otherwise, would BD consider applying the approach on AHU in PNAP APP-42 for these AC plant rooms with the 4% restriction calculated on the total floor area of the essential plant rooms instead of the total GFA of the floor?	accommodated the area of plants supporting the operation of the access facilities for telecommunications and broadcasting. However, the AC plant rooms serving essential plant rooms should be considered as non-essential plant rooms for the purpose of GFA calculation. BD might favourably consider disregarding such AC plant rooms from GFA calculation on case basis, provided that their area did not exceed 4% of the floor areas of the essential plant rooms they serve.
6.	**<u>GFA Concession for Carparks</u>** Item 31 of ADF 3/2024 held on 9 August 2024 regarding the granting of 100% GFA concession for ancillary or public carparks in not more than one aboveground level in private project as stipulated in paragraph 7 of Appendix C to PNAP APP-2 refers. BD advised *that "…if there are specific site constraints rendering it impossible to fully utilise the site for construction of the concerned aboveground carparking floor such that it is necessary to provide split levels or stack up the car park spaces in multi-levels, more than one aboveground carparking floors may be 100% disregarded from GFA calculation on the condition that the total floor area of the concerned aboveground carpark would not exceed the site area…".*	BD advised that the compliance with the SBDG promulgated in PNAP APP-152 was a pre-requisite in exempting or disregarding green/amenity features and non-mandatory/non-essential plant rooms and services from GFA and/or site coverage calculations, and would generally not be regarded as the "specific site constraints" mentioned under item 31 of ADF 3/2024 held on 9 August 2024. Nevertheless, AP might provide the details of the case with justifications for consideration by the Building Committee of BD.

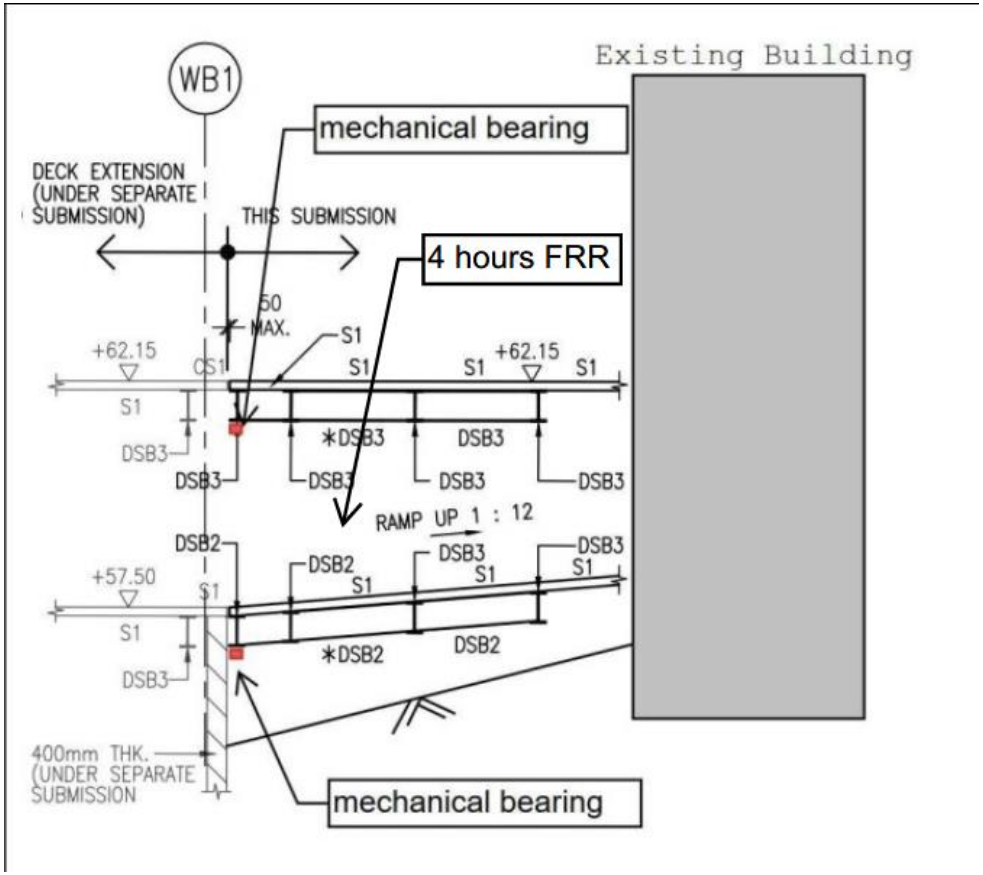
	As it is quite common that the aboveground building structure has to be **setback** from the site boundary to fulfil the **Building Separation** and **Building Setback** requirements under the sustainable building design guidelines (SBDG) stipulated in PNAP APP-152 and hence unable to fully utilise the site for construction of the concerned aboveground carpark floor, would BD also consider to accept, under such circumstances, to grant 100% GFA concession to the split or multi-levels aboveground carparking floors on the condition that the total floor area of the concerned aboveground carpark would not exceed the site area.	
7.	**<u>Prevention of Water Seepage</u>** (a) With respect to Figure 4 (Sunken Area under Bathtub) in Annex 2 to Appendix B to PNAP APP-105, a vertical grating connecting drainage system via a trap with water replenishing arrangement is illustrated to discharge water seeped into the sunken area. We opine that a warning pipe discharging such seeped water to a prominent position at, say, pipe duct/well or other open area, may equally well serve the same purpose. Besides, it can also allow property management personnel to identify the location of water seepage, and thus take necessary follow-up actions with the occupier of the unit concerned. (b) With respect to Figure 5 (Sunken Trench/Area) in Annex 2 to Appendix B to PNAP APP-105, it requires the provision of demarcating	(a) BD advised that as stipulated in paragraph 20(g) of Appendix B to PNAP APP-105, waterproofing membrane/material should be applied to the entire internal area of the sunken slab serving a bathroom or toilet. Water seeping from the bathtub area to the sunken area, if any, would be discharged to the foul water drainage system via a vertical grating, as illustrated in Figure 4 in Annex 2 to Appendix B to the said PNAP. Adequate access points with inspection chambers should be provided for the sunken slab to facilitate inspection of the pipeworks and clearance of any blockage thereof. Unconnected warning pipe was undesirable since it would create nuisance and/or water seepage elsewhere if the situation was unattended. (b) BD advised that the demarcation for sunken area could facilitate future maintenance and reduce the risk to damage the waterproofing

	the sunken trench/area on the floor finishes, which would render the installation of floor finishes odd. We opine that the provision is not necessary, as there would be proper maintenance access or inspection chamber to the sunken trench/area as required under paragraph 20(f) of the said Appendix, which is sufficent to identify the alignment of the sunken trench/area concerned. We would therefore like BD to re-consider the above, or to further review the same prior to finalising the new Code of Practice for Drainage in Buildings.	in identifying the sunken trench. The sample drawings of waterproofing works in a bathroom or a toilet provided in Annex 2 to Appendix B to the said PNAP were for reference only. BD would favourably consider alternative design and construction with equivalent or better performance.
	Items raised by HKIE	
8.	**<u>Temporary Works for Tower Crane - Code of Practice for Site Supervision 2009 (2024 Edition) (Supervision Code)</u>** Paragraph 4.12(e) of the Supervision Code states that *"similar to all types of temporary works, the RC should provide continuous supervision of the works in accordance with this Code and the supervision plan. The <u>AP/RSE/RGE should check to ensure that RC has followed the above requirements and provide periodic supervision of such works in accordance with this Code and the supervision plan"</u>*. Paragraph 4.12(j) of the Supervision Code states that *"in the case of a free-standing tower crane that relies solely on the support at its base, and irrespective whether it is of Case 2 or Case 3, the RC should submit the relevant documents of the temporary works providing support to the tower crane, including the certified plans and construction drawings with design*	BD advised that insofar as temporary works providing support to a tower crane was concerned, Table 4.2, Table 4.3, paragraphs 4.9 to 4.12 and item A9 in Table 5.1, item E7 in Table 5.2 and item G7 in Table 5.3 of the Supervision Code stipulated the responsibilities of AP/RSE/RGE for site supervision/inspection on temporary works carried out by RC. While RC had the sole responsibility of ensuring the integrity of the temporary works, including temporary works providing support to a tower crane such that the carrying out of temporary works should be safe and should not endanger the workers on site, the public and adjoining buildings and lands, AP/RSE/RGE and their TCPs were required to check if the administrative procedures set out for temporary works

	justifications, prepared by the DE and checked by the ICE, the duly signed Forms TW1, TW2 and TW3 to the RSE within 7 days after the completion of the works. The RSE should submit them to BD for record within 14 days after the completion of the works for both Case 2 and Case 3. The submission should be appended with a statement signed by the RSE to confirm that (i) he/she is satisfied with the completeness of documents including the plans, construction drawings, design justifications, duly signed Forms TW1, TW2 and TW3; and (ii) the temporary works, sequence of construction or method statements have no adverse effect on the permanent structures, adjoining buildings and lands, by way of overstressing or overloading". According to Item E7 of Table 5.2, RSE's Technically Competent Persons should *"check and satisfy with the completeness of documents including plans, construction drawings, design justifications, standard forms, test reports and completion certificate of the temporary works providing support to the tower crane; and check that they are properly kept on site by the RC; and that the procedures are followed by the RC."* In respect of the above paragraphs/item, would BD please clarify whether, in addition to completeness of documents, AP/RSE/RGE's teams are required to carry out site supervision/inspection on the registered contractor (RC)'s temporary works for tower crane or not.	providing support to a tower crane in paragraphs 4.9 to 4.12 of the Supervision Code had been followed by the RC. In particular for Case 3, according to paragraphs 4.11(b) and 4.12(d)of the Supervision Code, RSE/RGE should check and give a written permission to RC for the carrying out the temporary works upon verifying that the safety and integrity of the permanent structures, adjoining buildings and lands would not be adversely affected.
9.	**Mass Concrete Fill in Shallow Foundations** In paragraph 7 of Appendix C to PNAP APP-18, it is stated that mass	BD advised that the paragraph 7 of Appendix C to of PNAP APP-18

	concrete fill with depth exceeding 1 m placed beneath footings or raft foundations should be regarded as structural element and be designed in accordance with the Code of Practice for Structural Use of Concrete 2013 (2020 Edition) (Concrete Code). In the absence of an established guideline, some BD officers had required that the whole depth of mass concrete be provided with a nominal rebar percentage of 0.13% in some previous projects, which resulted in huge amount of reinforcement for mass concrete depth of 2 to 3 m. The mass concrete fill is subjected to compressive stress under the confinement of the surrounding weak rock strata. It would be safe to design this element as plain concrete which is permitted in the Concrete Code. To prevent cracks from shrinkage and thermal effects, mesh fabric A393 will be provided to the three sides above the rock stratum. The use of mass concrete fill beneath footing and raft foundation has been used for decades without any structural issues. Would BD consider if this is an acceptable approach to fulfil the design requirements of the Concrete Code pursuant to paragraph 7 of Appendix C to PNAP APP-18.	provide for RSE to design mass concrete fill in accordance with Concrete Code. RSE should provide justifications to demonstrate the adequacy of the mass concrete stocky element. BD considered that providing nominal steel amount to mass concrete stocky element is deemed to satisfy the requirement in the Concrete Code when there was no justification given by RSE. The use of wire mesh against shrinkage and thermal effects of a fully enclosed mass concrete stocky element was generally acceptable, subject to the circumstances of the rock profile.
10.	**<u>Reinforced Concrete (RC) Walls and Curbs for Secondary Structural Elements on Structural Framing Plans</u>** It has been a common practice that reference would be made to the GBP for the locations of RC walls providing support to metal cladding, stone cladding, air-conditioner supporting frames and similar elements. Moreover, the RC details of the walls will be shown in the typical details plan in the superstructure submission. In some recent projects, BD officers required the locations of all these RC walls to be shown on the structural framing plans. On top of that, they also require the RC curbs supporting	BD advised that the layout of curbs and RC walls which support the secondary structural elements (SSE) need not be shown on the structural framing plans of superstructure plan submission. However, the typical reinforcement details of such curbs and walls should be provided on plans. Justification for the structural adequacy of such curbs and walls should be included in the design report and structural calculations of the respective secondary structural elements, and the proof of compatibility

	glass balustrades and hanger walls for glass walls to be shown on the structural framing plans. This will make the structural framing plans unnecessarily congested and as a result, the details of major structural elements might be masked. Would BD please advise if the locations of all these RC walls and curbs need to be shown on the structural framing plans?	between the secondary structural elements and parent structure was required. BD also advised that any minor inconsistencies between the framing plans and structural plans of SSE would not hinder the grant of consent to the commencement of the SSE works. RSE were reminded of their responsibilities to rectify any inconsistencies in superstructure plans.
11.	**<u>Fire Resistance Rating (FRR) of Mechanical Bearing of Link Bridges</u>** The diagram below shows link bridges connecting two underground structures with FRR of 240 minutes. One side of the link bridges are supported on the structure with sliding spherical bearings as indicated. The upper bearing is inside a fire rated compartment with 240-minute FRR whereas the lower one is outside the compartment and is above a sloping ground. Would BD please advise if the following interpretations are correct: (a) Bearing is not an element of construction and thus no fire protection needs to be provided. [Note: bearing is provided to enable horizontal movements between the connected structures. In the event of fire, the bearing will lose its sliding function but the vertical load carrying capacity will still be maintained for mechanical spherical bearing. Consequently, the structural stability and integrity of the link bridge will not be affected. The bearing can be replaced after the fire incident];	(a) BD advised that as shown in the diagram, since no fire barrier was provided at each end of the link bridge connecting two underground structures and the link bridge was unlikely unenclosed, according to Clause C15.1(c) of the FS Code, the link bridge should be considered as an integral part of the fire compartment it linked. The upper bearing, being a loadbearing member, and its associated supporting structural elements should therefore be considered as elements of construction and fire protection complying with the relevant requirements of the FS Code should be provided.

	(b) Irrespective of the answer to (a) above, no fire protection is needed for the lower bearing as it is not situated within a compartment.  	(b) BD advised that as the lower bearing was not within the fire compartment, no FRR was required.
12.	**<u>Axial Compression Ratio Limit on RC Shear Walls</u>** Axial compression ratio (N_{cr}) for RC shear wall is stipulated in Clause	BD advised that the axial compression ratio for RC shear wall was a

	9.9.3.3 of the Concrete Code for "ductility design". *9.9.3.3 Axial compression ratio N_{cr}* The axial compression ratio N_{cr} of walls is defined as follows $$N_{cr} = \frac{N}{0.45 f_{cu} A_c}$$ where: N $= 1.4G_k + 1.6Q_k$ f_{cu} is the characteristic strength of concrete A_c is the gross area of concrete section N_{cr} should not be greater than 0.75. This requirement imposes great constraint on structural design of RC walls, especially for medium and high-rise buildings, as it excludes the contribution of steel section for fulfilment of "ductility" requirement. Steel composite shear wall approach is a very common structural design method adopted in medium and high-rise buildings in Mainland China. Requirements of axial compression ratio limits for the design of RC shear wall encased with steel Section and/or encased with steel section and Plate are provided in the Clauses 9.1.16 and 10.1.7 of the People's Republic of China Industry Standard (中华人民共和国行业标准) JGJ 138-2016 "Code for design of composite structures (组合结构设计规范)" as extracted below :-	critical parameter in structural engineering and had an effect on the shear wall's ductility behaviour under lateral loads, such as due to wind or seismic effects. The extant clauses 9.9.3.2 and 9.9.3.3 of the Concrete Code stipulated the detailing requirements of RC shear wall for ductility in accordance with its axial compression ratio derived in Equation 9.8. While a new code of practice for the seismic effects of buildings was under preparation, BD would review the extant requirements of axial compression ratio for RC shear wall in Concrete Code for deliberation in the Technical Committee on the Concrete Code at a suitable juncture. Moreover, composite design of shear wall for ductility would be discussed in the Technical Committee on the Code of Practice for the Structural Use of Steel, where necessary.

Axial compression ratio limit for **RC shear wall encased with steel section** under Clause 9.1.16 of JGJ 138-2016:

9.1.16 考虑地震作用的型钢混凝土剪力墙，其重力荷载代表值作用下墙肢的轴压比应按下式计算，且不宜超过表 9.1.16 的限值。

$$n = \frac{N}{f_c A_c + f_a A_a} \qquad (9.1.16)$$

consider compression capacity of steel section

式中：n ——型钢混凝土剪力墙轴压比；

N ——墙肢重力荷载代表值作用下轴向压力设计值；

A_a ——剪力墙两端暗柱中全部型钢截面面积。

表 9.1.16 型钢混凝土剪力墙轴压比限值

抗震等级	特一级、一级（9度）	一级（6、7、8度）	二、三级
轴压比限值	0.4	0.5	0.6

注：当剪力墙中部设置型钢且与墙内型钢暗梁相连时，计算剪力墙轴压比可考虑中部型钢的截面面积。

Axial compression ratio limit for **RC shear wall encased with steel plate** under Clause 10.1.7 of JGJ 138-2016:

	10.1.7 考虑地震作用的钢板混凝土剪力墙，其重力荷载代表值作用下墙肢的轴压比应按下式计算，且不宜超过表 10.1.7 的限值。 1.2(DL+0.5LL) $$n = \frac{N}{f_c A_c + f_a A_a + f_p A_p} \quad (10.1.7)$$ 式中：n——钢板混凝土剪力墙轴压比； N——墙肢重力荷载代表值作用下轴向压力设计值； A_a——剪力墙两端暗柱中全部型钢截面面积； A_p——剪力墙截面内配置的钢板截面面积。 consider compression capacity of steel section and steel plate **表 10.1.7 钢板混凝土剪力墙轴压比限值** 抗震等级 | 特一级、一级（9度） | 一级（6、7、8度） | 二、三级 轴压比限值 | 0.4 | 0.5 | 0.6 Would BD please request the Technical Committee on the Concrete Code to consider providing similar design guidelines for adoption by the industry.	
	Items raised by AAP	
13.	**<u>Construction of Shroff within Carpark</u>** Shroff, as an ancillary facility for carpark, is often designed within the parking area. Considering the same use classification, separation of parking area and its shroff by fire barriers in accordance with Clause C7.1 of the FS Code should not be required. Please advise if the above understanding is correct.	BD advised that shroff in a carpark might be considered as an ancillary small office to the carpark in accordance with Clause C7.2 of the FS Code subject to the detailed design and layout on a case-by-case basis. In such cases, separation by fire barriers would not be required.

14.	**Disregarded GFA for Generator Room** Uninterruptible Power Supply (UPS) with backup generator for equipment is often required for special building uses, such as medical facilities, elderly care facilities, etc. Considering the above provision of UPS is wellness design, please advise if such non-essential generator room can be disregarded from GFA calculations.	BD advised that only the emergency generator room for fire service installations required under the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment could be disregarded from GFA calculation. Generator room for other purpose should be included in the GFA calculations.
15.	**ESH – Notice of Approval** Recently, we received e-mails from ESH in different formats for different projects. Some would enclose letters of approval or consent while some would not, and the enclosed PDF files would have different file name formats. As such, it is difficult to identify the relevant project and submission type. Examples are shown below: Example #1	BD advised that according to the Circular Letter on Notification on the Results for Approval and Consent Applications for Structural Works in Electronic Form issued on 13 May 2024, the arrangement of the issuance of the result letters for approval and consent applications for structural works (Result Letters) in electronic form in reply to paper submissions was implemented in two phases. In the first phase, Result Letters issued on or after 2 July 2024 was sent to the e-mail address of AP/RSE/RGE in the format shown in examples #2 and #3. In the second phase commencing from after 2 October 2024, AP/RSE/RGE would receive standardised email notifications generated by ESH as shown in example #1, and they should retrieve the result letters through ESH.

BD File Ref.: 3/2003/24

Address of Site: 129-134 Connaught Road West, Hong Kong

Submission ID:

Submission Title: Ground Investigation

Creation Date: 23 Oct 2024

Type: Consent

Status: -

********** ***ATTENTION*** **********

For enquiry, please contact us at telephone no.
3580 1000 (Handled by "1823")
or via the following email: esh-helpdesk@bd.gov.hk.
Please do not reply to this email as it comes from an automated mailbox.
****

Example #2

BD3-4047-21 Approval Letter ... (6 MB) BD3-4047-21 Approval Letter ... (3 MB)
BD3-4047-21 Approval Letter ... (3 MB)

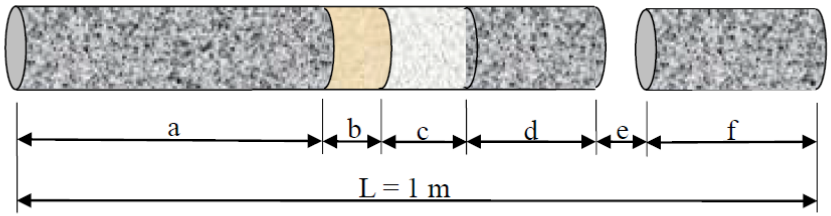
Dear Sir/Madam,

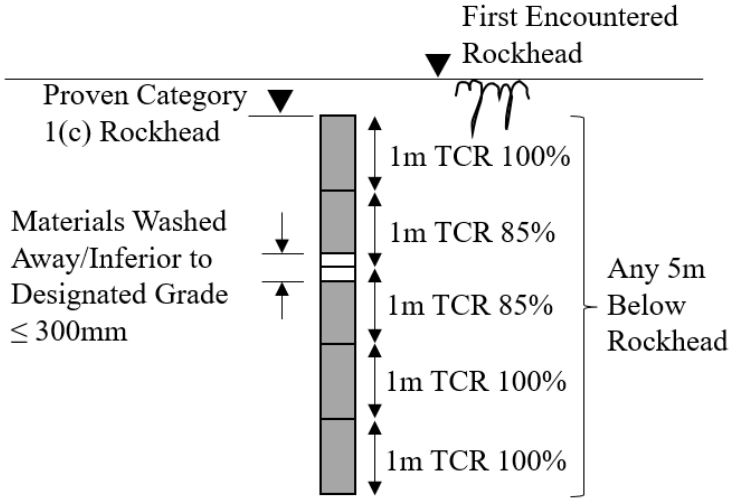
The full version of the letter on the result of your application is attached below.
2. To promote a green environment and facilitate effective preparation and processing of submissions, you are encouraged to submit building plans, documents, and applications required under the Buildings Ordinance in specified electronic format via Electronic Submission Hub (ESH) as an alternative to the conventional paper submission. The ESH is a digital platform developed by the Buildings Department which operates 24 hours a day and 7 days a week all year around. You are cordially invited to experience and utilise the ESH as a more convenient and efficient means of submission. For details and type of plans being accepted in ESH, please refer to ESH website at https://esh.bd.gov.hk and PNAP ADM-17.

Regards,

Buildings Department

	Example #3 3.4049.08 dd 5.9.2024.pdf (2 MB) Dear Sir/Madam, The full version of the letter on the result of your application is attached below. 2. To promote a green environment and facilitate effective preparation and processing of submissions, you are encouraged to submit building plans, documents, and applications required under the Buildings Ordinance in specified electronic format via Electronic Submission Hub (ESH) as an alternative to the conventional paper submission. The ESH is a digital platform developed by the Buildings Department which operates 24 hours a day and 7 days a week all year around. You are cordially invited to experience and utilise the ESH as a more convenient and efficient means of submission. For details and type of plans being accepted in ESH, please refer to ESH website at https://esh.bd.gov.hk and PNAP ADM-17. Regards, Buildings Department May we request BD to standardise the email format and provide more information (e.g. date, BD reference number, information on first approval/major amendment/minor amendment, etc.) on the file names?	
	Items raised by ACEHK	
16.	**Interpretation of Permitted Coreloss for Bedrock** Note (5) under Table 2.1 of the Code of Practice for Foundations 2017 (2024 Edition) (Foundation Code) states that *"the TCR of the designated grade should be proved to a depth at least 5 m into the specified category of rock. This requirement is deemed to be complied with if the rock underneath the minimum socket depth as mentioned in note (3) above has a length of at least 5 m which can be divided into a number of segments (in consecutive manner) such that (a) each segment is 1 m; and (b) the calculated TCR in accordance with Figure 2.1 of each segment should satisfy the required percentage of TCR*	BD advised that the examination of the rolling 1 m at the junction of 2 consecutive segment of 1 m cores should be done to check whether the maximum continuous length of materials washed away/inferior to the designated grade was greater than 300 mm or not. In other words, it was NOT acceptable to have more than 300 mm materials washed away/inferior to the designated grade right at the junction of the two consecutive segments for Category 1(c) rock.

	of the designated grade". Note 5 under Figure 2.1 of the Foundation Code, which is extracted below, states that *"the maximum continuous length of materials washed away/inferior to the designated grade, b+e, should not be greater than 300 mm".*  Notes: 1. TCR of the designated grade = (a+c+d+f)/L. 2. a, c, d and f are materials of the designated grade or better. 3. b are materials inferior than the designated grade. 4. e are materials washed away during drilling. 5. The maximum continuous length of materials washed away/inferior to the designated grade, b+e, should not be greater than 300mm 6. TCR of the designated grade should not be confused with TCR of the core run shown in the site investigation report, which is equal to (a+b+c+d+f)/L **Figure 2.1 Definition of TCR of the Designated Grade** For Category 1(c) rock, it is required to have not less than 85% total core recovery (TCR) of the designated grade. This implies that for each 1 m segment, the materials washed away during the coring process/inferior to Category 1(c) rock should not be greater than 150 mm. While the Foundation Code allows any 5 m below the rockhead to be divided into 5 nos.	ACEHK's interpretation was generally acceptable and applicable to Cat 1(b), 1(c) and 2 rocks with specified values in Table 2.1 except the starting location of 5 m below the rockhead for 5 no. of consecutive 1 m segments. BD clarified that, for defining TCR of the designated grade, the starting location for the 5 no. of consecutive 1 m segments should be taken at that right below the rockhead.

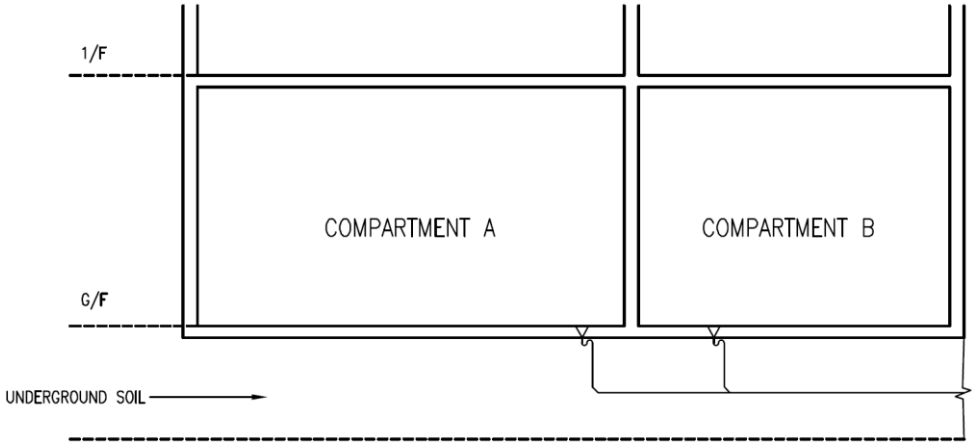
	of 1 m segment for satisfying the requirement that the designated grade and the maximum continuous length of materials washed away/inferior to the designated grade should not be greater than 300 mm, this implies that it is acceptable to have not more than 300 mm materials washed away/inferior to the designated grade right at the junction of the two consecutive segments for Category 1(c) rock (i.e. not less than 85% TCR over 2 m at local spot) as illustrated in the diagram below, instead of applying the examination of rolling 1 m.  Would BD clarify the above interpretation is acceptable and applicable to Category 1(b), 1(c) and 2 rocks?	
17.	**<u>Wind Load for Tower Crane for Service Conditions</u>** PNAP APP-157 promulgated the enhanced control on temporary works for providing support to tower cranes. As specified in paragraph 4.12(c) and (d)	BD advised that the design wind loads for temporary structures should be in accordance with Clause 2.5 of the Code of Practice on Wind

	of the Supervision Code, for Case 2 temporary works, the RSE should acknowledge the design justification, and for Case 3 temporary works, the RSE should further verify their effects on permanent structure. In loading assumption review, the wind load under not-in-service conditions shall follow the Code of Practice on Wind Effects in Hong Kong 2019. However, there is no specified guidelines for wind load to be adopted for service conditions. Paragraphs 9.2.4 and 9.2.5 of the Code of Practice for Safe Use of Tower Cranes published by Labour Department implies that the design of wind load on structure of the tower crane shall not solely rely on the manufacturer's assumption and shall be site specific. Paragraph 5.2.3 of the Code of Practice for Safe Use and Operation of Suspended Working Platforms published by Labour Department states that the suspended working platform in its operation position shall be designed to withstand a gust wind speed to 31m/s which is equivalent to a wind pressure of 0.58kPa (say 0.6kPa). Please clarify if such wind load can be adopted for service conditions of tower cranes. Paragraphs 9.2.4 and 9.2.5 extracted from_the Code of Practice for Safe Use of Tower Cranes	Effects in Hong Kong 2019 (Wind Code). If a temporary structure would remain in the position for a period not more than one year, the structure might be designed for a minimum of 70% of the design wind loads for permanent buildings. For tower crane that would remain on site for one year or longer, the design wind load for all supporting structures and its connections should be taken as 100% of the design loads for permanent buildings both in-service and out-of-service condition. BD also advised that to determine the design wind load for the tower crane in service condition, the RSE should consider the appropriate design wind load resulting in most critical effects on the tower crane and its supporting structures taking into account of site operation need. BD would review members' suggestion of adopting the wind gust speed of Typhoon Signal No.3 (110km/h or 30.56m/s) in determining the design wind load under service condition. [**Post meeting notes**: Regarding the design wind loads for tower crane in service condition, BD advised that with reference to Clause 9.2.5 of the Code of Practice for Safe Use of Tower Cranes issued by the Labour Department extracted below, the design wind loads on structure of the tower crane should adequately take into account of all adverse wind loads conditions. The design wind loads for the supporting structures of the tower crane should therefore comply with the Wind Code.

	9.2.4 For the design of wind load on structure of tower cranes, reference can be made to the Code of Practice on Wind Effects in Hong Kong issued by the Buildings Department. As most of the tower cranes used in Hong Kong are imported from European countries where the design wind loads are much lower than that of Hong Kong, the wind loadings on the structure of tower cranes should be checked in accordance with the above mentioned Code of Practice. Crane manufacturer's data relating to the dead weight of the tower crane and the dynamic forces, which can occur during operation of the crane, should always be obtained for determining the most critical effects of the wind loading, taking into consideration of the above-mentioned Code of Practice. 9.2.5 Although tower crane manufacturer's instructions may specify maximum wind speed for service conditions, they cannot give recommendations for survival wind conditions on a particular site. On tall cranes, wind forces will have a considerable influence on the strength requirements of the supports and foundation. Due care is necessary in the fitting-up and fixing of any holding-down devices, rail clamps, temporary connections or anchorages. Paragraph 5.2.3 extracted from the Code of Practice for Safe Use and Operation of Suspended Working Platforms 5.2.3 The suspended working platform in its operating position should be designed to withstand the sustained wind speed up to 14 metres per second and gust up to 31 metres per second.	9.2.5 Although tower crane manufacturer's instructions may specify maximum wind speed for service conditions, they cannot give recommendations for survival wind conditions on a particular site. On tall cranes, wind forces will have a considerable influence on the strength requirements of the supports and foundation. Due care is necessary in the fitting-up and fixing of any holding-down devices, rail clamps, temporary connections or anchorages. As such, the design wind loads for the supporting structures of tower crane should comply with the Wind Code.]
18.	**<u>Repair Works Under Minor Works Item 1.17</u>** We refer to page 34 of the Amendments to Technical Guidelines on Minor Works Control System (MWCS) (March 2021), under Chapter 3.4 Repair of Structural Elements. It states that *"for the connection of existing and new reinforcement, welding, drill-in reinforcement with chemical grout, couplers*	BD advised that approval plans referred to all plans approved under the development. The approved method statement and details could be adopted for the said repair works under the MWCS, provided all specifications and manufacturers' recommendations of the materials

	or any methods (other than lapping of reinforcement) are not allowed <u>unless the relevant method statement and details are shown in the approval plans</u>" Please advise if our understanding is correct that "approval plans" refers to whole set of approval plans under the same BD file reference number, including the first approval and subsequent alteration and addition (A&A) works, as well as any approvals of amendment plans in which the relevant contents may have been eventually superseded in the final amendment plans. In the case for the use of drill-in reinforcement with chemical grout, we would also like BD to clarify whether "relevant method statements and details in approval plans" refer primarily to the material and method statement of a particular chemical grout, whereas minor adjustments which may occur during the repair process (e.g. embedment length, bar size, exact location) are to be justified in the submissions under the MWCS.	adopted were identical.
	Items raised by AREC	
19.	**<u>Case 2 and Case 3 Temporary Works – Paragraph 4.9 of Supervision Code</u>** In accordance with paragraphs 4.9(b) and 4.9(c) of the Supervision Code, Case 2 temporary works are defined as those that "*have no effect on the permanent structures by way of overstressing or overloading*", while Case 3 temporary works are defined as those that "*may have effect on the permanent structures, adjoining buildings or lands, by way of overstressing or overloading*". We would like to seek BD's clarification on the definition of "effect on the permanent structure".	BD advised that according to paragraph 4.9 (b) and (c) of the Supervision Code, for temporary works, the sequence of construction or method statements that were not required to be shown on prescribed plans, it would be a case 2 if such temporary works had no effect on the permanent structures, adjoining buildings and lands, by way of overstressing or overloading, and would be regarded as case 3 if there might have such effect.

	To our understanding, temporary works sitting on the permanent structure with loading not exceeding the design live/wind load can be treated as Case 2. Would BD please confirm our understanding is correct?	In general, it was the sole responsibility of RC's TCP T5 to determine, based on the actual site situation, if it was a case 2 or 3 temporary works. If temporary works merely sat on the permanent structures and its loading effect did not exceed the design loads and had no conflict with the original design assumption of the permanent structures and without the need to go through assessment on the design of the permanent structures, it might be treated as Case 2, subject to individual case merits. In case of doubt, RC should consult RSE/RGE and submit the design of the temporary works to substantiate the effect of the temporary works on permanent structures following the procedures of Case 3.
	Items raised by PBSCA	
20.	**<u>Fire Stop for Opening on Ground Floor Slab for Passage of Underground Drainage Pipes</u>** Referring to the sketch below, since smoke spreads upwards, we opined that the design of the drainage pipe located at the underground passing through two fire compartments would be acceptable without providing fire collars or other forms of fire stop. Would BD please advise if our understanding is correct?	BD advised that where water-borne metallic pipes including drain pipes pass through fire barriers, gaps between the pipes and the fire barriers should be properly filled by fire rated material having an FRR of not less than that of the fire barrier that it penetrates according to Clause C8.6 of the FS Code. PBSCA was encouraged to provide further information of the case for separate discussion with BD.

		
21.	**<u>Non-provision of Sanitary Fitments Upon Application of OP – PNAP APP-114</u>** (Item raised by BD) BD received an enquiry concerning whether PNAP APP-114 is applicable to government accommodation (GA) of Residential Care Home for the Elderly (RCHE) and Residential Care Home for Person with Disabilities (RCHD) in a new private development. GA of RCHE and RCHD in a new private development will be handed over to the Social Welfare Department (SWD) after the issue of OP and its fitting out works will normally be carried out by an operator engaged by SWD in accordance with the requirements under lease/agreement with SWD and actual operational need. Against this background, BD would favourably consider giving a modification of the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations to permit	Members noted and welcomed the arrangement.

	sanitary fitments (except for sanitary fitments at accessible toilet) at GA of RCHE and RCHE in a new private development not be installed at the time of OP application provided that: (a) the requirements under paragraph 4 of PNAP APP-114 are fulfilled; and (b) the application for modification is supported by SWD.	
22.	**Stakeholders' Consultation Forum for Building Information Modelling (BIM)** (Item raised by BD) BD advised that a stakeholders' consultation forum on new BIM tools for automated checking of building separation requirements under the SBDG and the fire safety requirements under the FS Code will be held on 25 November 2024. In the forum, BD's consultants would share their research findings as well as the automated checking functions of two new BIM plug-in tools. BD encouraged members and their colleagues to attend the forum so as to learn more about the new tools and methodologies to enhance work efficiency in plan preparation and processing.	Members noted.
23.	**Stakeholder Engagement Sessions for BIM Consultancy Study** (Item raised by BD) Pursuant to the Roadmap on Adoption of BIM for Building Plan Preparation and Submission promulgated by the Development Bureau (DEVB) in December 2023, the Government was committed to promoting the adoption of BIM with the tentative target to mandate electronic submission and BIM	Members noted.

	submission by mid-2027 and 2029 respectively. In this connection, BD had commissioned a BIM consultancy study to formulate a technical framework for the full adoption of BIM by the private sector for preparation and submission of plans for approval under BO. The study will assess the readiness of the industry to adopt BIM, recommend the most suitable mode of BIM application for statutory plan submissions, and formulate strategies and identify the necessary conditions for mandating BIM submission. The first round of consultation comprises a focus group session and an open engagement session which had been scheduled for 29 November 2024 and 11 December 2024 respectively. BD encouraged practitioners especially young professionals to attend the consultation events to share their views on the BIM roadmap.	
24.	**<u>Briefing Session on Revised PNAP APP-84</u>** (Item raised by BD) BD advised that the revised PNAP APP-84 was issued in September 2024 to promulgate the new requirements for provision of access facilities for mobile services in private buildings as stipulated in the Telecommunications (Amendment) Ordinance 2024 implemented on 1 October 2024. These new requirements would be applicable to new or major revision of general building plans (GBP) of specified buildings approved on or after 1 April 2025. To facilitate practitioners' understanding of the requirements and the implementation details, BD and the Office of the Communications Authority would organise a briefing session on 19 December 2024. BD encouraged practitioners to attend the briefing session.	Members noted.

25.	**Tieback System for Excavation and Lateral Support (ELS) Works** (Item raised by BD) Further to Members' suggestions on accepting the use of tieback system outside lot boundary for ELS works in private developments, BD advised that the issue had been deliberated by DEVB and the relevant government departments including the Lands Department and Highways Department. The government would favourably consider accepting the use of tieback system in private developments on case basis.	Members noted and welcomed the initiative.
26.	**Briefing Session on the Supervision Code** (Item raised by BD) BD advised that a briefing session on the Supervision Code, which had incorporated various amendments made in December 2023 and August 2024, would be held on 15 January 2025. BD encouraged practitioners to attend the briefing session.	Members noted.
27.	**Smart Check System** (Item raised by BD) BD advised that the government would launch the Smart Check System soon in public works projects to facilitate the processing of submissions of laboratory test reports. To make use of the said system in private developments, BD encouraged practitioners' adoption of the standardised format published by the Hong Kong Accreditation Service (HKAS) in the submission of laboratory test reports for private building works.	Members noted and welcomed the arrangement.

28.	**Required Information of Wind Tunnel Test Report in Superstructure Plan Submission** (Item raised by BD) Further to item 19 of ADF 3/2024 held on 9 August 2024, BD advised that key information of the wind tunnel test report, such as the lateral loads, torsional loads, base moment and load combination factors of two critical orthogonal wind directions of the subject building, should be included in the structural plans for approval.	Members noted and supported the arrangement. BD would consider a Member's suggestion on including the required information of the wind tunnel test report only in Part I of the structural calculations submitted to BD for approval.
29.	**Indication of Bedroom Doors on GBP** (Item raised by AAP) Would BD please clarify whether it is acceptable for bedroom doors in a flat to be shown in dotted lines on the GBP and such doors to be installed after the OP is issued?	BD advised the matter would be separately discussed. [**Post-meeting note:** BD advised that in general there was no objection to bedroom doors in a flat to be shown in dotted lines on the GBP and such door to be installed after the issue of OP, provided that a legend/general note was included to clearly denote that such doors were shown "for information only".]
30.	**Processing Time of Form BA14 for A&A Works** (Item raised by PBSCA) Members have cases that Form BA 14 for A&A works had not been addressed or acknowledged for more than 3 months. Would BD please review the matter and achieve to issue written reply for the submission of Form BA 14	BD had been monitoring regularly the processing of submissions of Form BA14 and submissions of Form BA14 with the full set of required documentations were targeted to be acknowledged within one month.

	within 3 months from the submission date?	AP were encouraged to contact the relevant senior and/or chief officers of BD for any long outstanding acknowledgements.