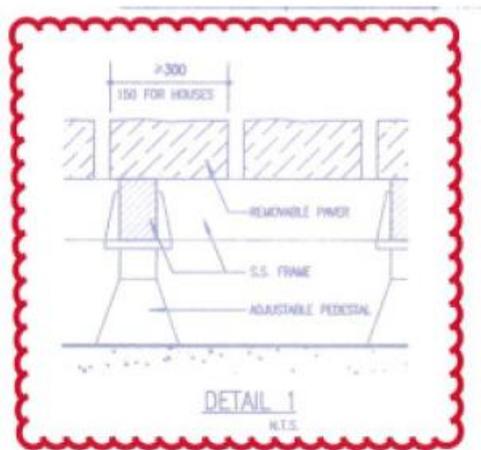
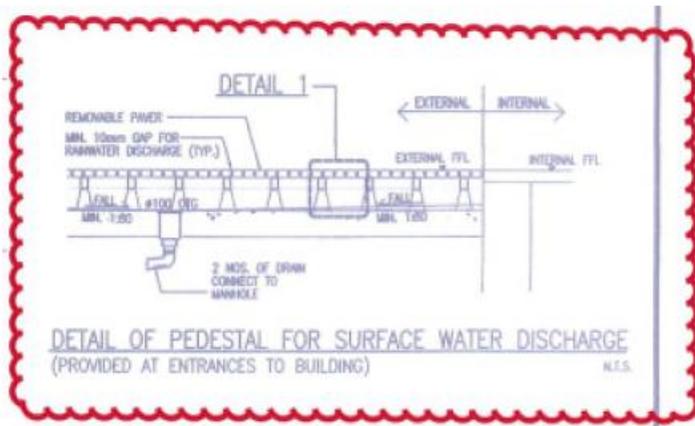


Summary of Items Discussed in 2/2017 APSEC Discussion Forum on 17 March 2017

	Items proposed by Convenors for Discussion	Summary of Discussion and BD's Responses
	Items raised by HKIA	
1.	<p><u>Proposed Sheet Piling under a Public Street</u></p> <p>According to PNAP ADM-2 Appendix E, sheet piling under a public street may be permitted provided that modification on Buildings Ordinance (BO) s31(1)- projection over street would be granted. Such modification would only be considered if relevant government departments raise no objection and that the requirements imposed by the concerned department(s), if any, are complied with.</p> <p>We understand that such modifications have been commonly applied for by the industry from time to time and modification would usually be granted together with the approval of the Sheet Piling plan if no adverse comment is received from relevant government departments.</p> <p>Recently, some SE and/or BS have begun to seek comments from LandsD for sheet piling under a public street. Unlike HyD, TD or DSD, reply from LandsD would usually take more than 12 weeks or even longer in some cases. As a result, most of the applicants have to withdraw the concerned applications and amend the plans such that the sheet piles would only be proposed within sites in order not to jeopardize the approval of plans and hence site programmes. It may have significant implication on basement design in congested sites.</p> <p>We would like to know if LandsD is considered as one of the “relevant”</p>	<p>BD advised that it was necessary to refer structural plans involving sheet piles driven under public street to the LandsD for comments. In case LandsD's comments were not available before the statutory due date, BD would still grant approval to the plans and modification under BO s.31(1) for sheet piles under street provided that there were no other adverse comments under the BO and from other government departments concerned. The LandsD's comments would be conveyed under separate letter when available.</p>

	<p>government departments for application of modification of projection over street in respect of sheet piling under a “public street”, where HyD is the maintenance authority. In case seeking comment from LandsD is considered necessary, we would enquire if there is any fast track processing and/or procedure in seeking timely response from LandsD on such application.</p>	
<p>2.</p>	<p><u>Modification/Exemption from B(C)R 35 & 49(1)</u></p> <p>"PNAP APP-125 provides guidelines for modification/exemption from B(C)R 35 & 49(1) to “<i>allow flexibility in design if means to guard against the ingress of water to the inside of the building are provided to the satisfaction of the BA.</i>” Para 3(a) & (b) state that the BA will favorably consider application for exemption or modification of the regulations with the following design criteria:</p> <ul style="list-style-type: none"> (a) <i>Provision of additional drainage channels, each with at least 2 no. of drainage outlets; and</i> (b) <i>Provision of a fall of not less than 1:80 on the flat roof or external ground sloping away from the adjoining internal/usable floor area.</i> <p>There are no pre-requisites/restrictions in the PNAP that govern the minimum width of, and the covering materials over the drainage channels for the purpose of exemption/modification application.</p> <p>It is noted that various past projects adopting the above design criteria with removable pavers on adjustable pedestals and 10 to 20mm gaps in-between them to ensure proper discharge of surface water into the drainage channels</p>	<p>The proposed design with removable pavers/ timber decking units with gaps in-between would generally be acceptable without the need to provide open channel with grating cover on the slab, providing that the following design criteria were met:</p> <ul style="list-style-type: none"> (a) The total aggregate area of all gaps between units for discharge of surface water was not be less than that of the required cross-sectional area of the drain outlets underneath the units; and (b) The gaps between the units should at least be 5mm wide, and 10mm adjoining internal area. <p>BD further clarified that notwithstanding the surface of the outdoor units flush with the internal area, if the level difference between the external ground (with adequate drainage outlets) below the units and the adjoining internal was not less than 150mm, application for modification of B(C)R 35 or 49(1) would not be necessary.</p>

underneath have been approved by the BD (Annex I refers).



However, similar arrangements have been rejected in some projects recently, and the BD requires that open channel with grating cover only has to be

<p>3.</p>	<p><u>Mechanical Ventilation of Room containing Waste Fitment</u></p> <p>In some institutional projects, sinks or basins are provided in a large room for various functional reasons. Due to the large size of the room, it may be difficult to fulfill the openable window requirement under B(P)R 36, and hence mechanical ventilation has to be provided. However, the air change requirement for application of modification will require the installation of a number of fan units to achieve the air change requirement for the whole room. We would suggest the BD to consider accepting a notional floor area of say, 2.25sq.m (i.e. 1.5m x 1.5m) per sink/basin, in calculating the air change requirement for institutional use such as health care and educational projects (similar to pantry in open office).</p>	<p>BD advised that HKIA’s proposal of designating a 1.5m x1.5m notional area per sink/basin for calculation of the air change requirement for mechanical ventilation was acceptable provided that exhaust outlet should be located in the vicinity of the fitment. The said assessment criteria could be applicable to shops or offices as well.</p>
<p>4.</p>	<p><u>Maximum Width of Sash for Side-Hung Casement Window</u></p> <p>PNAP APP-116 Para. 6 stipulates that the maximum width of sash should be 700mm for side-hung casement window. With the use of 4-bar hinges, the maximum horizontal clearance of the window opening (i.e. between the frame and the sash in the open position) is just about 480mm.</p> <p>To cope with the recently issued “Guidelines for Design & Safety Provisions for A/C Platforms” requiring access opening to be of a minimum width of 500mm for access to A/C platform, we suggest to relax the maximum allowable width of sash for side-hung casement window to at least 800mm.</p>	<p>BD explained that the 700mm maximum width requirement imposed on side-hung openable sash was on the consideration of ergonomics. BD would consider on a case basis to accept wider side-hung sash provided that the window design could ensure safe operation without undermining the performance in ventilation. The use of limit-stay device which could maintain/restrain the extent of the window opening would be acceptable provided that full opening was still possible by means of handy device made available to occupants to avoid excessive reaching.</p> <p>Meanwhile, BD would also take a pragmatic approach in accepting the clear width of access opening to A/C platform via side-hung casement window to be slightly less than 500mm, noting the technical constraint of common 4-bar hinges as well as the need to comply with the 700mm</p>

		<p>maximum width requirement for side-hung window sash, and would further review the said requirement at the “Working Group on Provision of Safe Access & Facilities for Repair and Maintenance of External Features”.</p> <p>BD also clarified the intent of the Guidelines that if there was gondola access, the requisite access opening to A/C platform might not necessarily be 500mm min. As under such circumstances, the opening could be used for facilitating routine maintenance only such as refilling of refrigerants. Yet, the clear opening should not be less than 400mm for passage of workers. For change of A/C, the AP should indicate that the performance of the gondola could cater for such repair, e.g. capable of securely anchoring onto the external wall and housing in size and weight of the A/C and personnel.</p>
5.	<p><u>Top Rail to Free-standing Glass Barrier – PNAP APP-110</u></p> <p>Para. 6 of Appendix A of PNAP APP -110 states that top rail should be attached to the glass when the free-standing glass barrier has a continuous run of 2 panels of glass or more and is designed for area where people may congregate or susceptible to overcrowding.</p> <p>In the COP for Dead and Imposed Loads 2011 Para 3.8.12, example of areas where congregation of people is <u>not</u> expected are domestic uses, offices, stairs and landings. And in Para 3.8.13, examples of areas where people may congregate but overcrowding is <u>not</u> expected included balconies, utilities platform, edges of roofs, etc.</p>	<p>BD clarified that according to Circular Letter dated 26 Aug 2016, Clause 3.8.1.2 had been amended as follows:-</p> <p><i>3.8.1.2 Examples of areas where congregation of people is not expected are internal areas of building for domestic uses, offices, stairs and landings.</i></p> <p>In this regard, external balconies, utilities platforms and private flat roofs of domestic units and/or offices were considered as areas where people might congregate but overcrowding was not expected, and hence</p>

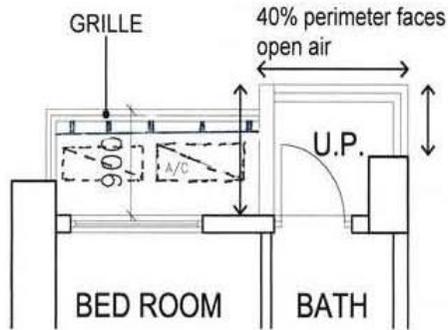
	<p>Item 3 of ADF 5/2015 dated 13 Nov 2015 clarified that top rail was not required for “non-crowd” areas in residential units.</p> <p>Based on the above, would the BD please clarify whether balconies, utility platforms and edges of private flat roofs etc. for domestic and/or office use shall be considered as areas where congregation of people is <u>not</u> expected, and hence top rail is also not required for free-standing glass barrier.</p>	<p>top rail was required for free-standing glass barrier under such circumstances.</p>
<p>6.</p>	<p><u>Basement Carpark to Estate type Houses Development</u></p> <p>It has been a very common design that basement private carpark spaces ancillary to a house with internal staircase connecting them are separated from the carpark spaces of adjoining houses by partition/wall, similar in design to an aboveground carport. This type of design has all along been approved by both the BD and LandsD for many past estate house type developments with basement carpark design.</p> <p>However, we understand that the BD has recently considered the above design not acceptable and full height partition/wall separating the ancillary private carparks to individual houses has to be reduced to parapet height. We opine that this restriction is not necessary with due consideration of the following:</p> <p>a. Such common design is indeed similar to that for aboveground carport for estate type house development;</p>	<p>BD stated in approving new buildings for a use, the layout should be compatible to such use. Unconventional layouts for certain use which prone to abusive use or increase of hazards not catered for in the design would not be approved.</p> <p>It had not been uncommon that private carparks (and its ancillary left over areas) under houses were found enclosed for unauthorized uses. The subject market-stall types of carpark layouts usually with the left over space around the carparking lots used for storage with or without the addition of doors or shutter in the front was particularly hazardous in basement situations. There were also cases which the high headroom in such carparks were constructed with cocklofts and enclosed by shutters in the front.</p> <p>BD advised that in house type developments with communal basement</p>

	<p>b. The basement private carpark spaces together with the manoeuvring spaces between the partitions/walls are altogether private domain and integral part of the respective house;</p> <p>c. Proper & effective central management and DMC will be in place for managing such estate house type development, and any abuse is highly unlikely; and</p> <p>d. The driveway providing access to such basement carpark spaces is a common area under the DMC, and thus these carpark spaces are under constant surveillance by all owners and the estate management.</p> <p>Would appreciate if the BD could consider the reinstatement of the past practice.</p>	<p>carparks where the parking space(s) for a house were directly under the same house, partition walls would not be permitted to separate carparks for different houses. If justified, only low metal railings could be installed for demarcation. Structural elements or rooms (usually plant rooms) in such locations should be humble resulting in an “open” design benchmarking against conventional communal carparks. They should also be located in positions which would not facilitate partitioning, e.g. in the middle zone on the sides of carpark lots. If open design was found not feasible and well justified to this end, BD would only disregard the 2.5mx5m parking space(s) from accountable GFA but not the left over space and the headroom would have to be kept to the minimal.</p> <p>BD further advised that in case foundation consent had already been issued and with the corresponding GBP approved with full length and full height structural walls or rooms separating the basement carparks for each house, BD may pragmatically consider accepting such undesirable cases to avoid incurring abortive works. However, non-structural partition walls not yet constructed would not be accepted.</p>
Items raised by HKIE		
7.	<p><u>Ultrasonic Crosshole Logging Tests for Large Diameter Bored Piles</u></p> <p>BD recently imposes mandatory requirement “Ultrasonic Crosshole Logging Tests for Large Diameter Bored Piles” in the appendix of approval letter as below:-</p>	<p>BD advised that upon further review they would revise the imposed conditions for Ultrasonic Crosshole Sonic Logging Test as follows:-</p> <p>(a) the min. number of sonic tube would be 4 for bored piles with diameter less than 2m; and</p>

	<p>(e) <i>Ultrasonic Crosshole Sonic Logging test</i> – Test to verify the homogeneity and integrity of concrete should be carried out for the entire length of each pile in accordance with ASTM D6760-08 or ASTM D6760-14 by a laboratory* accredited under the HOKLAS.</p> <p>As per BD’s requirements, Sonic Logging shall be carried out in accordance with ASTM D6760-08 or ASTM D6760-14. It is noted that ASTM D6760-08 is superseded by D6760-14. Please clarify which standard should be followed as their requirements are different.</p> <p>According to the new requirement, the min. no. of sonic tubes shall be set as every 0.25 to 0.3 m of the bored piles diameters. For 3.0 m dia. bored piles, the nos. of sonic tubes will be 9. Registered Specialist Contractor (Foundation) advised that this requirement is impractical and will induce great impact on the construction programme. Would BD please review this requirement before further implementation.</p>	<p>(b) the min. number of sonic tube would be 6 for bored piles with diameter of 2m or above.</p> <p>The sonic test requirements would not be imposed for amendment plans which 1st approval had been obtained before November 2016.</p>
8.	<p><u>Approval of Concrete Curbs/Walls Supporting Glass Balustrade, Cladding and Curtain Walls</u></p> <p>Recently, BD requests all concrete curbs/walls supporting glass balustrade, cladding and curtain walls be marked on the structural framing plans for easy identification and reference.</p> <p>Can we add these structural walls/curbs layout on the framing plan of the glass balustrade, cladding and curtain wall submissions. And the structural details of these curbs/walls shall then be referred to the RC standard details in the superstructure plan for simplicity. .</p>	<p>BD responded that the proposal would be acceptable subject to the condition that the project did not involve engagement of separate RSE for the curtain wall and cladding works.</p> <p>Apart from showing the RC details of these curbs/walls on the structural framing plans and layout be given on the floor plan of the curtain wall/ cladding/ glass balustrade submissions, modification for regulation 33(1) of the B(A)R should be submitted after obtaining the first consent of the</p>

		<p>structural framing plans as per “Minor Amendments” as depicted in PNAP ADM -19 if the layout had yet been included in the structural framing plans originally approved.</p> <p>Final amendment of structural plans for incorporating these layouts in the structural framing plan should be submitted for BD’s approval before application of OP.</p>
<p>Item raised by AAP</p>		
<p>9.</p>	<p><u>Requirement of Structural Submission for Aluminium Windows / Balcony doors under PNAP-APP 37</u></p> <p>There have been feedbacks that even when the window size is smaller than the limit stipulated in para.4(ii) of PNAP APP-37, BD officer still requires structural submission for the sliding doors to balconies or UPs. We wish to know whether there are any other considerations to require such submission.</p> <p>For demonstration purpose, we provide the following example: A window installed at the structural opening of 2.5m high and 1.79m wide does not require structural submission as per specified in para. 4 of PNAP APP-37. (least dimension <1.8m, and area <6m²).</p> <p>We wish to know if our understanding is correct.</p> <p>Further to the above, we wish BD to clarify whether French doors or sliding doors leading to balconies or UPs could be considered as 'windows' and structural submissions are required if the thresholds of wind load and sizes as stipulated in para. 4 of PNAP APP-37 are met.</p>	<p>BD had the same understanding on the example provided.</p> <p>However, BD pointed out that as the French doors or sliding doors at external walls opening onto balconies or UPs were subject to similar conditions to that of windows, para 4 of PNAP APP-37 should also apply to them.</p>

<p>10.</p>	<p><u>Smoke Seal for Vehicle Lift through Basement</u> According to Clause C9.1 of Code of Practice for Fire Safety in Buildings 2011 (FS Code), it stipulates that:- All lift wells should comply with the following requirements:- (a) ... (b) ... (c) ... (d) Where a lift connects basement with storeys above ground storey, the lift doors at the basement should be protected by a smoke seal lobby complying with Part E. It is our understanding that i.) smoke seal requirement is not applicable to PASSENGER LIFT/VEHICLE LIFT LANDING DOORS notwithstanding whether they open into a protected lobby or not if the lift serves basements and ground floor only (i.e. not to above ground storey) ii.) for a VEHICLE LIFT connecting basement with ground floor, 1st floor and 2nd floor, it is considered impractical to have its landing doors open into a protected lobby. In this regard, would BD please clarify it is not necessary to provide such protected lobby.</p>	<p>BD confirmed that smoke seal requirements in the FS Code did not apply to lift landing doors.</p> <p>The requirement in Clause C9.1(d) was generally applicable to vehicle lifts. However, if every element of construction and fire barriers of the floors of the same use classification connected by the vehicle lift starting from basement floor had an FRR of not less than that of the basement as specified in Clause C14.1, provision of smoke seal lobby as required in Clause C9.1(d) would not be necessary.</p>
<p>11.</p>	<p><u>Design, Disposition of A/C Platform</u> As stipulated in para. 3(b) of PNAPAPP-19, individual A/C platforms of reasonable size, which have a built-in system for condensate disposal need not be counted for SC and PR. As such, reasonable AC platform projecting from the external wall and physically touching the side of the balcony / UP should be acceptable. Would BD confirm our understanding is correct?</p>	<p>BD advised that abusive use of the proposed configuration of A/C platform might be probable if it adjoined a balcony / UP. However, if the frontage of the site was so meagre but on the other hand a large A/C platform for 2 no. of A/C units was inevitable (had to be justified), a level difference of at least 500mm between the balcony / UP and the AC platform must be provided.</p>



12. **Second Set of Submitted plans**

Pursuant to item 8 of 3/2016 ADF, we propose the following statement for certifying Set Ia plans (colour duplication of Set I) as true copy of set I, for BD's consideration.

I hereby certify this Set Ia drawing being true copy of the Set I drawing.

XXXXXX
 Authorized Person (Architect)
 AP(A)XX/86

As discussed in the meeting, the wordings should be amended as follows.

"I hereby certify this drawing is a true copy of its original."

Besides, APs / RSEs should be reminded to seek legal advice as regards the implication of the concerned drawings being a set of certified true copy.

Items raised by the BD	
13.	<p><u>Utility Platform (UP) for Housing Outdoor Units of ACs</u></p> <p>With the current generous provision of headroom for residential floors, whether it would be practical to require the priority location of AC to be on the upper part of UP and only when insufficient space is found should the residual still required space be provided on AC platforms. This would particularly help the situations in studio flats where frontage is usually meagre.</p>
	<p>Member generally agreed that it was technically feasible to install A/C units at the soffits of UPs. However, for those cases with floor-to-floor height limited by OZP and/or lease conditions, only 2.3m clear headroom could be provided. In this connection, members were requested to provide more details of the A/C units and its installation for verification of the achievable clear headroom. In passing, members also opined that the A/C units could be installed at the soffits of balconies to allow greater flexibility. With a view to eliminate projecting AC platforms both on consideration on the reduction of building bulk and safety for maintenance, BD would adopt an accommodating stance in considering the headroom of balconies and UPs.</p>
14.	<p><u>Revised PNAP APP-2</u></p> <p>BD would brief the amendments in the recently revised PNAP.</p>
	<p>BD briefed members the recent revision of PNAP APP-2 which would allow underground public carpark to be disregarded from GFA calculation if the relevant requirements stipulated therein were met.</p>
AOB Items	
15.	<p><u>Post-OP Rectification Works Procedure (PRWP)</u></p> <p>(Item raised by AAP)</p> <p>As a standard requirement for an OP application, a schedule showing the building materials and products in compliance with the BO would be submitted to BD. In the course of carrying out rectification works under PRWP, it might be necessary for some building elements to be re-built</p>
	<p>BD advised that if materials with test reports not previously submitted had been used in carrying out the PRWP works, such test reports should be submitted together with the "Certificate on Completion of Rectification Works" upon completion of the PRWP works.</p>

	<p>with materials of another brand or model such as, replacement of a constructed FRP blockwork wall.</p> <p>It is our understanding that the above is allowed under PRWP. We wish to know if further submission of the relevant test report etc would be needed.</p>	
16.	<p><u>Protective Barrier at Window and Openable Area Calculation</u> (Item raised by AAP)</p> <p>It is our understanding that glass protective barrier in front of openable window can be ignored in the calculation of area required under B(P)R30(2)(a)(ii) as demonstrated in the diagrams below. Would BD confirm the same?</p>	<p>BD advised that while the glass protective barrier in front of the openable window would be considered as obstructing ventilation, protective barrier in form of well perforated metal grilles would usually be acceptable.</p>
17.	<p><u>Clause B13.2 of FS Code</u> (Item raised by HKIA)</p> <p>As stipulated in Clause B13.2 of the FS Code, a locking device which is electrically operated should be capable of automatic release upon actuation of an automatic heat or smoke detection system or the operation of an alarm system or a central manual override <u>designed and installed</u> to the satisfaction of the Director of Fire Services.</p> <p>However, FSD has declined to process the relevant applications since 2015 as it considered the same fell within BD's jurisdiction instead of its. In this connection, would BD clarify with FSD?</p>	<p>HKIA tabled a copy of self-explanatory letter of a project from FSD stating that FSD would not process the relevant application despite the FS Code had explicitly mentioned that the said system was to be designed and installed to the satisfaction of the Director of Fire Services.</p> <p>The BD advised that they would follow up with FSD on the subject matter.</p>
18.	<p><u>Progress of the Working Group (WG) recently formed under ADF</u> (Item raised by BD)</p> <p>BD would report the progress of the WG.</p>	<p>BD reported that it was decided in the last Joint BSC/APSEC meeting that the WG would be further tasked to formulate guidelines for</p>

designing architectural screens for shielding raised tracks and gondola and BD would request WG members to provide input for deliberations.

BD also reported progress of the WG as follows:

Provision of Safe Access and Facilities for Repair and Maintenance of External Features

Labour Department (also WG member) advised that building features such as balustrade, windows, etc., if used as anchorages should be tested/inspected by RPEs before use instead of trained competent persons. As such, BD considered further follow-up on designing such features as anchorages seemed unnecessary.

Streamlined Submission Procedures for Carrying out Demolition Works Involving Minor Works

BD reported that as the proposed streamlined procedures which required associated minor works to be submitted to the New Buildings Division and permitted reduction / elimination of separate photographic records were well received by the members, the new measures would be promulgated in form of a circular letter in due course.

Provision of Reduced Size Light Well to Enhance Natural Ventilation

A WG member volunteered to conduct CFD modelling for comparing the ventilation performance of reduced-size light wells which were ventilated at the bottom. BD would provide detailed parameters for the purpose shortly.