

**HERITAGE IMPACT ASSESSMENT
IN RESPECT OF BLOCK 3 AT OLD LEI YUE MUN BARRACKS**

BACKGROUND

Under the existing arrangement, in case of an outbreak of an infectious disease with pandemic potential, the Lei Yue Mun Park (LYMP) will be used by the Government as a quarantine centre alternatively.

1. LYMP is currently managed by the Leisure and Cultural Services Department (LCSD) for public use during normal times and are not purpose-built as quarantine centre. Once designated as quarantine centre, the toilets and shower facilities in residential units cannot be used on a communal basis as they are in normal times for the sake of infection control. Moreover, the camps would need to be closed entirely from public use, regardless the number of confinees. In 2013 and 2014, when there were confirmed human cases of avian influenza A (H7N9), there were relatively few contacts subject to quarantine. Nevertheless, the Lady MacLehose Holiday Village, which was used as quarantine centre, was closed from public use. This has raised the questions on the justifications of surrendering the whole holiday camp to less than 20 asymptomatic contacts.
2. The Food and Health Bureau has explored the option of redeveloping a LCSD holiday camp in its entirety, in addition to upgrading the residential units, to become fit for quarantine purposes. However, the engineering works would disrupt normal camp operations for much longer periods and would be far more expensive. Some holiday camps were also found to be unsuitable for large-scale redevelopment due to problematic individual sites within the camp.
3. Eventually, Block 3 of the LYMP is chosen as the site for the dedicated quarantine facility. Block 3 is a three-storey standalone building (please refer to **Figure 1** for the overview of the Block) in a relatively secluded part of the LYMP (please refer to **Figure 2** for the location plan of Block 3). It was accorded as a Grade 2 historic building by the Antiquities Advisory Board in 2009.

4. The proposed works would allow Block 3 to be converted from the existing storage into dormitories of the LYMP managed by LCSD during normal times and will be used as a quarantine centre on an *ad-hoc* basis with the Department of Health overseeing the operation in case of occurrence of an infectious disease with pandemic potential.

STATEMENT OF CULTURAL SIGNIFICANCE

5. The project site is culturally significant for the following reasons:

- i) Historic Value

Old Lei Yue Mun Barracks was one of the earliest British Army fortifications in Hong Kong. The barracks was built at different times from 1890 to 1939, mainly serving as offices and married quarters for the British Army. In 1985, the Army relinquished the site to the Hong Kong Government. The site was subsequently converted into LYMP.

Block 3, built in 1939, has high historic significance because it witnessed a whole sequence of historic and military events from a fortification site to a battlefield and finally a leisure and recreational area. The rich historical context has marked on the site traces of its historical past which will become our memory of city's history.

- ii) Architectural Value

Block 3 is built on a platform cut into a hillside and reached by flights of steps from the camp road in front. The block is a typical army barrack block being a very long building with open verandahs along the front and rear elevations. It is three-storey high arranged internally into adjacent barrack rooms by means of cross walls. The ablutions (showers and toilets) are situated at two ends of the block. The architectural style is International Modern, which reached its peak of popularity in the 1930s. The construction is reinforced concrete with a structure of beams and columns, floor slabs and cross walls.

The front façade consists of open colonnaded verandahs with each open bay protected by a projecting cantilevered typhoon canopy with rounded corners.

The barrack rooms open on to the verandahs and have steel framed doors and windows. The roof is flat with a stepped “ziggurat” shaped parapet wall on the front façade. The whole building is painted a pale cream color with dark green trim to the edges of the typhoon canopies.

The International Modern style of architecture is quite rare for army barrack blocks and Block 3 is probably unique now as Block 2, which adopted the same architectural style, has been demolished. It does not appear to have been altered significantly and it retains its original authentic appearance. It should be regarded as having considerable built heritage value.

iii) Contextual Value

As an army barrack block, Block 3 had a relatively low social value to the community in the past. Serving as dormitories in future for the LYMP after the proposed conversion, however, it will acquire much higher social value. As part of the barracks, it has local interest as well as group value.

There are a total of eleven graded historic buildings, including Block 3, and three declared monuments, within the site of the LYMP. The buildings together formed a historic complex of significant heritage values (please refer to **Figure 3**).

HERITAGE IMPACT ASSESSMENT (HIA)

6. In accordance with Development Bureau Technical Circular (Works) No. 6/2009 and Antiquities and Monuments Office (AMO)’s Guidance Note to HIA Submission, an HIA has been carried out to examine the impact of the proposed works on Block 3 and to devise mitigation measures if adverse impact is unavoidable.

Conservation Principles to Conserve the Cultural Significance of Block 3

7. The recommended conservation principles for devising and implementing necessary mitigation measures to conserve Block 3 are as follows:

i) **Building Fabric**

- a. Authenticity of Block 3 and its architectural merits should be maintained with minimum intervention. The key character-defining elements (CDEs) identified should be preserved *in-situ* and restored as far as possible (please refer to **Figure 4**).
- b. Alteration to the identified original building fabrics should be allowed only if it is needed to suit the new use. It should be kept to the minimum, and must not impair the structural integrity of the building.
- c. The physical damage of the new works to and their visual impact on the heritage fabrics should be minimised. New elements should be of compatible design but distinguishable from the existing building fabrics, and also be reversible to avoid unnecessary damage to the building.
- d. Any essential addition and alteration works to be carried out at the exterior of Block 3 should be kept to a minimum and at less obstructive location.

ii) **Building Services and Setting**

- a. New addition and alteration should be of compatible design, in terms of suitable material, color and texture. It should not impose visual impact on the building.
- b. New plants and equipment shall not affect the structural stability of the historic structures and should be placed at a less prominent location away from the perimeter of the roof to minimise visual impact on the building and its surrounding area.

- c. New pipes / conduits / trunkings should be made at less prominent location to minimise visual impact on the main façade.

iii) Documentation and Monitoring

- a. Photographic and cartographic surveys should be carried out prior to conservation works by experienced surveyors / conservationists by making reference to the requirements from the AMO. A set of records shall be kept by the Architectural Services Department and the AMO.
- b. Any renovation and maintenance works during the conversion and in future operation should follow the principles / guidelines / management plan laid down in the HIA report, be properly guided and supervised by conservation professionals, and documented for record.

iv) Interpretation

The hostels and dedicated quarantine facility would promote the inherent historical value and significance of the LYMP by appropriate interpretation. The focus of interpretation of the dedicated quarantine facility shall be its linkage to the historic evolution of the old Lei Yue Mun Barracks and activities taken place when the garrison was settled there.

In the public accessible area on G/F, there will be photographic prints display of the history and architectural background of the old Lei Yue Mun Barracks and the conservation and adaptive reuse process of Block 3. Exhibition or other activities may be arranged via appointment.

Old fireplaces and other artifacts in the 3-person room on 1/F of Block 3 will be preserved *in-situ* for interpretation of the daily living in the past.

Key Design Proposals

8. The key proposed works for conservation and adaptive reuse are listed as follows:

- i) Restoration and adaptive reuse of Block 3 as dedicated quarantine facility
 - a. Block 3 will be restored and adaptively reused as dedicated quarantine facility meeting the latest architectural standards and requirements.
 - b. Heritage building fabrics including building form, fenestration, stepped “ziggurat” shaped roof parapet wall, typhoon canopy, verandah, and chimney stacks, staircase, handrail, fireplaces, etc. would be preserved and restored as far as possible.
 - c. The original open verandah would be revealed / restored by removing the existing boiler rooms at both ends of the rear verandah on 1/F (please refer to **Figure 8**).
 - d. Incorporate new internal uses including adding and removing internal non-load-bearing walls.
 - e. The thickness of the floor slab of the front verandah at G/F and at both ends of the front verandah at 1/F and 2/F would be increased to flush with the indoor floor level of endmost room for barrier-free access and addition of new ramp to overcome the height difference between the ends and other parts of the verandah.
 - f. Protective barrier to be added behind the existing parapet wall to comply with current statutory requirements.
 - g. New external ramp and staircase for connecting the front camp road and the platform to fulfill the statutory requirements under the Design Manual – Barrier Free Access 2012 (please refer to **Figure 5**).

- ii) Upgrading of fire safety provisions and building services systems
 - a. New addition of staircase to comply with the current standard.
 - b. New addition of fireman's and disabled lifts at both ends of the building for firemen and barrier free access compliance and operational convenience.
 - c. Fire service installation and equipment would be installed to enhance the fire safety of the building.
 - d. Conversion of the toilets at both ends of each floor into building services rooms.
 - e. New outdoor ancillary structure would be built at the open space at a less prominent location for accommodation of water pump and tanks (please refer to **Figure 5**).

Mitigation measures for conversion works

- 9. For areas where possible impact of conversion works could not be avoided, the following mitigation measures are to be implemented based on previously stated conservation guidelines:
 - i) Restoration and adaptive reuse of Block 3 as dedicated quarantine facility
 - a. Existing fireplaces would be retained and restored *in-situ* and any fireplace blocked by plywood case will be opened up to facilitate examination of its condition by experienced workmen under the guidance of conservationists (please refer to **Figure 4**).
 - b. Both ends of the verandah on G/F would be partially enclosed for accommodating new plants and equipment. The alteration should be reversible and shall not cause adverse impact on the existing parapet wall (please refer to **Figure 7**).

- c. Alteration of door openings and window openings (change from doors to windows, or vice versa) without changing their alignments. For the existing door use change to window use, the openings should not be altered and the design shall make reference to Dutch door. For the door and window openings which would not be suitable for adaptive reuse, they should be retained and kept locked instead of filling up.
- d. Recording and documenting, with photos and record drawings, the existing layout, finishes and details for possible future restoration should be carried out before commencement of the works.

ii) Upgrading of fire safety provisions and building services systems

- a. The proposed new lifts and staircases will be of a compatible design with the original building structure.
- b. Outdoor units of the air-conditioning system would be located at the rear verandah of the building in order to minimise visual impact.
- c. Utilising the existing windows for the electrical and mechanical room instead of creating new openings. New louvres for the windows of electrical and mechanical room should be of compatible design.
- d. New building services installations will be carefully designed in order not to affect the CDEs and the exterior outlook. They will be placed in the new ancillary structure as far as possible. Existing openings for the building services will be utilised as far as possible. Any internal service ductworks and machinery will be placed at inconspicuous locations.

10. Plans and illustrations showing the proposed works on Block 3 are at **Figures 5 to 18.**

Conclusion

11. The HIA concludes that the impacts on the proposed works to convert the existing block into a hostel and also be used as a quarantine centre are considered acceptable and manageable with the proposed mitigation measures. The design proposal will minimise any potential impact on the building and promote the inherent historical value and significance of the LYMP. The proposed restoration works are considered technically feasible and acceptable from the heritage conservation perspective.

Architectural Services Department

September 2016



Figure 1: Overview of Block 3

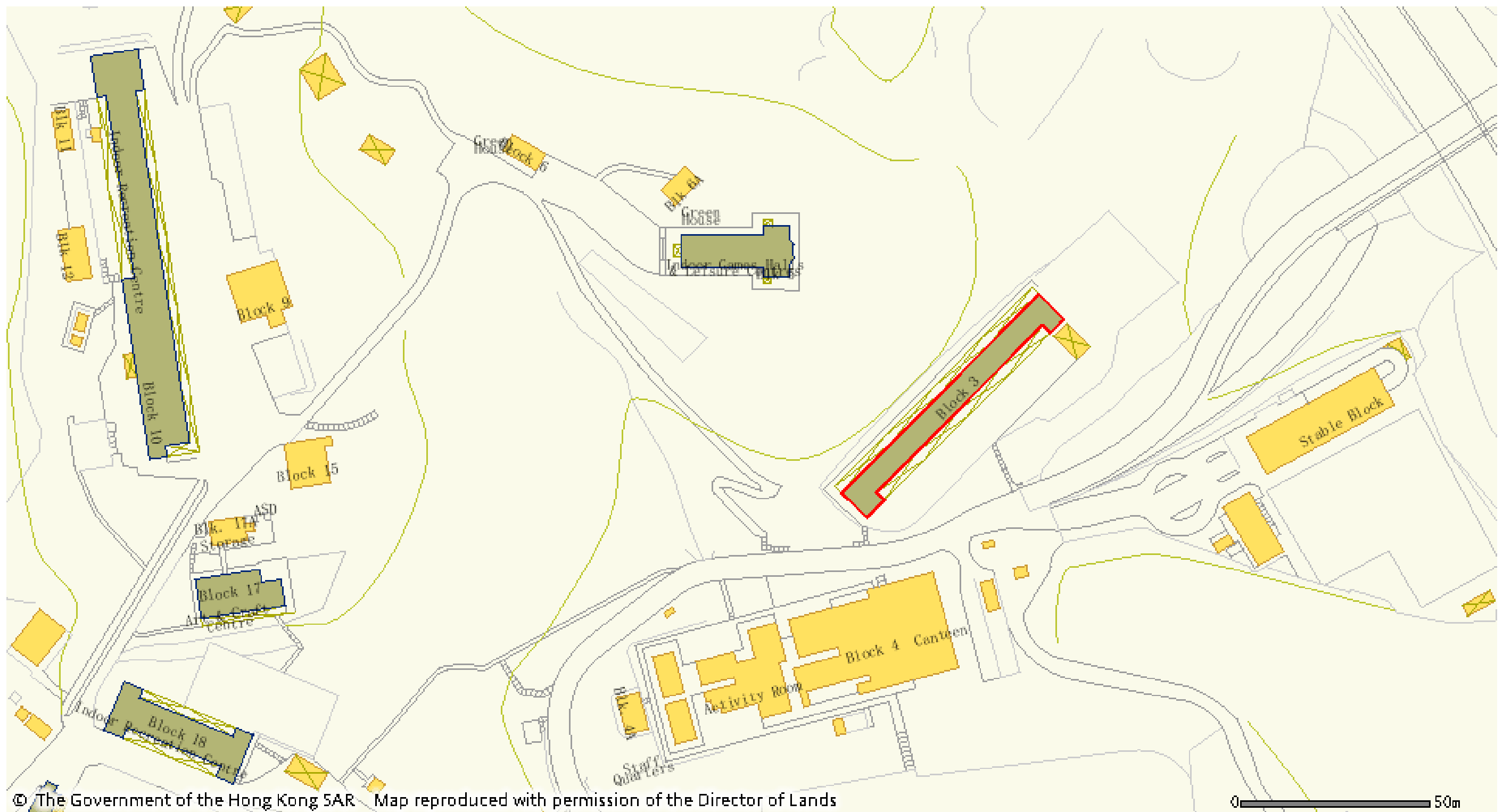


Figure 2: Location plan of Block 3, LYMP



Figure 3: Location plan of all graded blocks at LYMP

BUILDING	COMPLETION YEAR	GRADING (ACCORDED YEAR)	ORIGINAL USE	CURRENT USE
Block 2	1939	N/A	Soldiers' Quarters	Demolished in 1992
Block 3	1939	Grade 2 (2009)	Soldiers' Quarters	Film Archive
Block 5	1920s-1930s	Grade 2 (2009)	Church and Garrison Hall	Chapel
Block 7	1890-1910	Grade 1 (2009) Declared Monument (2016)	Field Officer's Quarter, Cook House and Boys' Room	Coffee Corner
Block 10	1900-1909	Grade 1 (2009) Declared Monument (2016)	Soldiers' Quarters, Canteen, Cook House, Boys' Quarters and Latrines	Indoor Recreation Centre
Block 17	1890-1895	Grade 2 (2009)	Sergeants' Mess and Latrines	Art & Craft Centre, Storage
Block 18	1890-1895	Grade 1 (2009)	Soldiers' Quarters, Adult School, Company Office & Stores	Indoor Recreation Centre
Block 20	1890-1895	Grade 1 (2009)	Ablution House and Cook House	Entertainment Centre
Block 21	1890-1895	Grade 1 (2009)	Soldiers' Quarters	Park Office
Block 25	1884-1890	Grade 1 (2009) Declared Monument (2016)	Officers' Mess and Quarters	Group Hostel
Block 30	1936	Grade 1 (2009)	Married Soldiers' Quarters	Family Hostel
Block 31	1907	Grade 1 (2009)	Married Soldiers' Quarters	Family Hostel

BUILDING	COMPLETION YEAR	GRADING (ACCORDED YEAR)	ORIGINAL USE	CURRENT USE
Block 32	1909	Grade 1 (2009)	Married Soldiers' Quarters	Family Hostel
Block 33	1938	Grade 2 (2009)	Married Soldiers' Quarters	Staff Quarters
Block 34	1936	Grade 2 (2009)	Married Soldiers' Quarters	Family Hostel



Stepped “ziggurat” shaped parapet wall with the construction year “1939”



Open verandah



Metal door



Metal window



Typhoon canopies



Chimneys



Fireplaces



Figure 4: Key CDEs

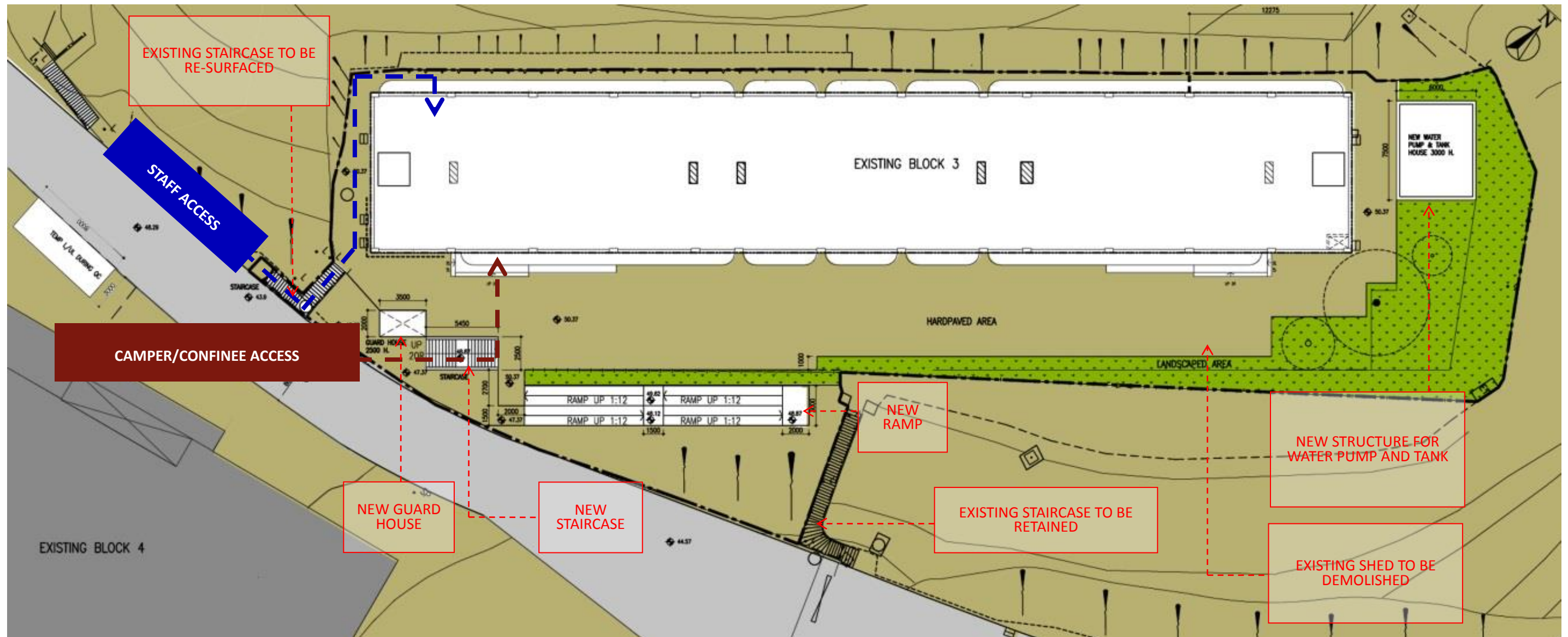


Figure 5: Proposed general site plan

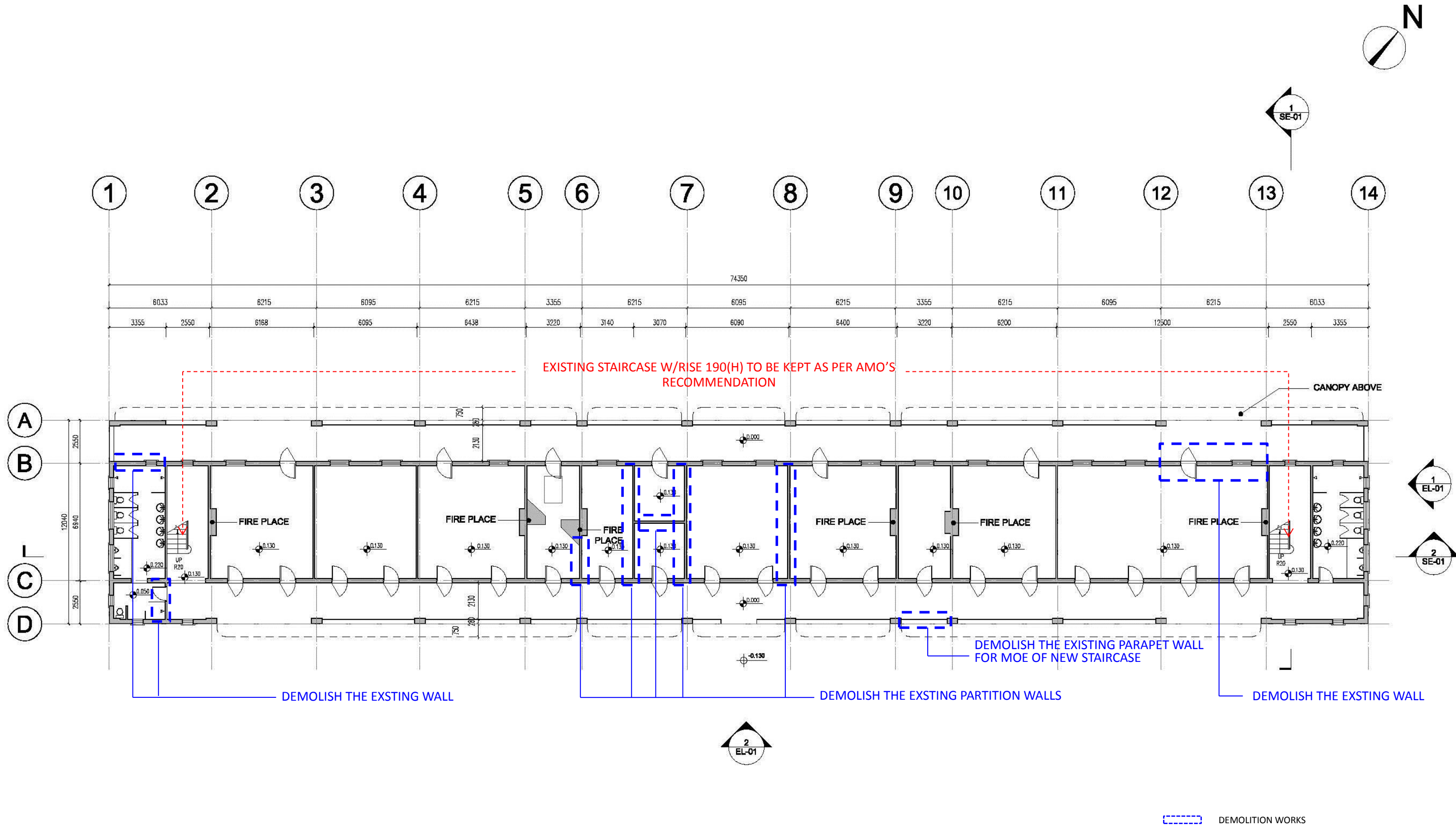
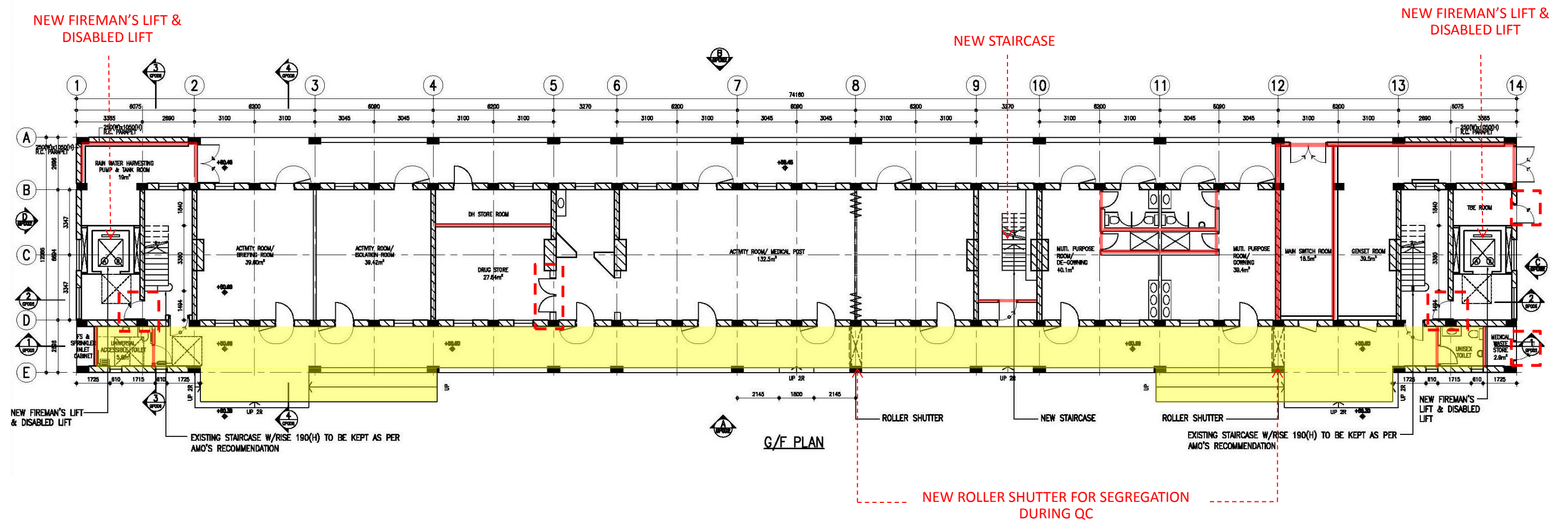


Figure 6: Existing layout plan of G/F



- NEW WALLS
- NEW DOOR OPENING
- FILL UP WITH LIGHT WEIGHT CONCRETE FOR BFA PURPOSE

Figure 7: Proposed layout plan of G/F

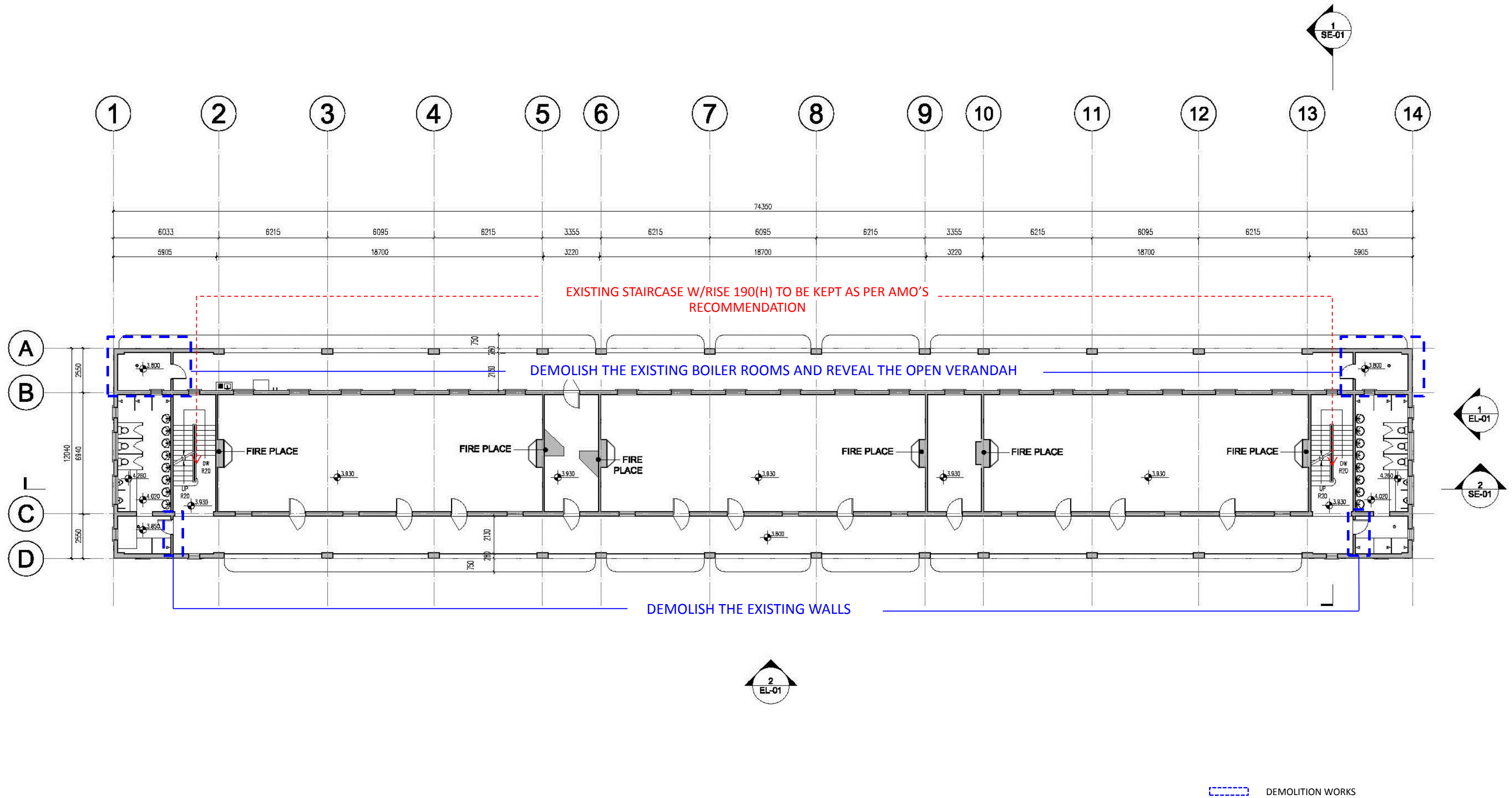


Figure 8: Existing layout plan of 1/F

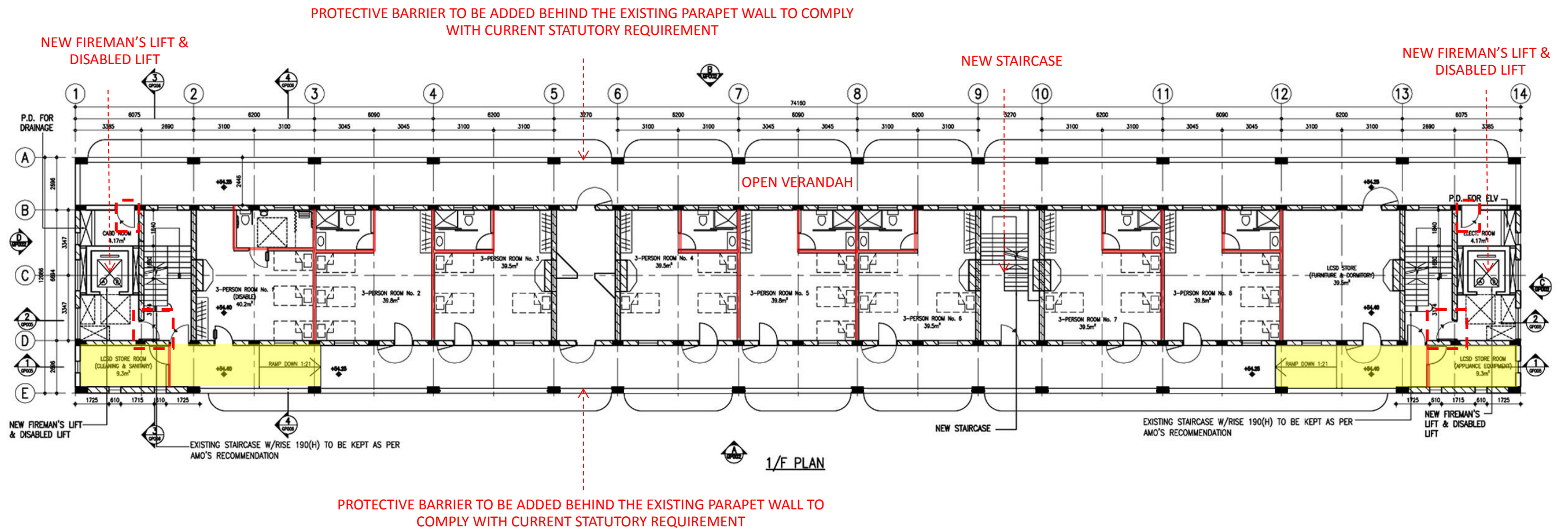


Figure 9: Proposed layout plan of 1/F

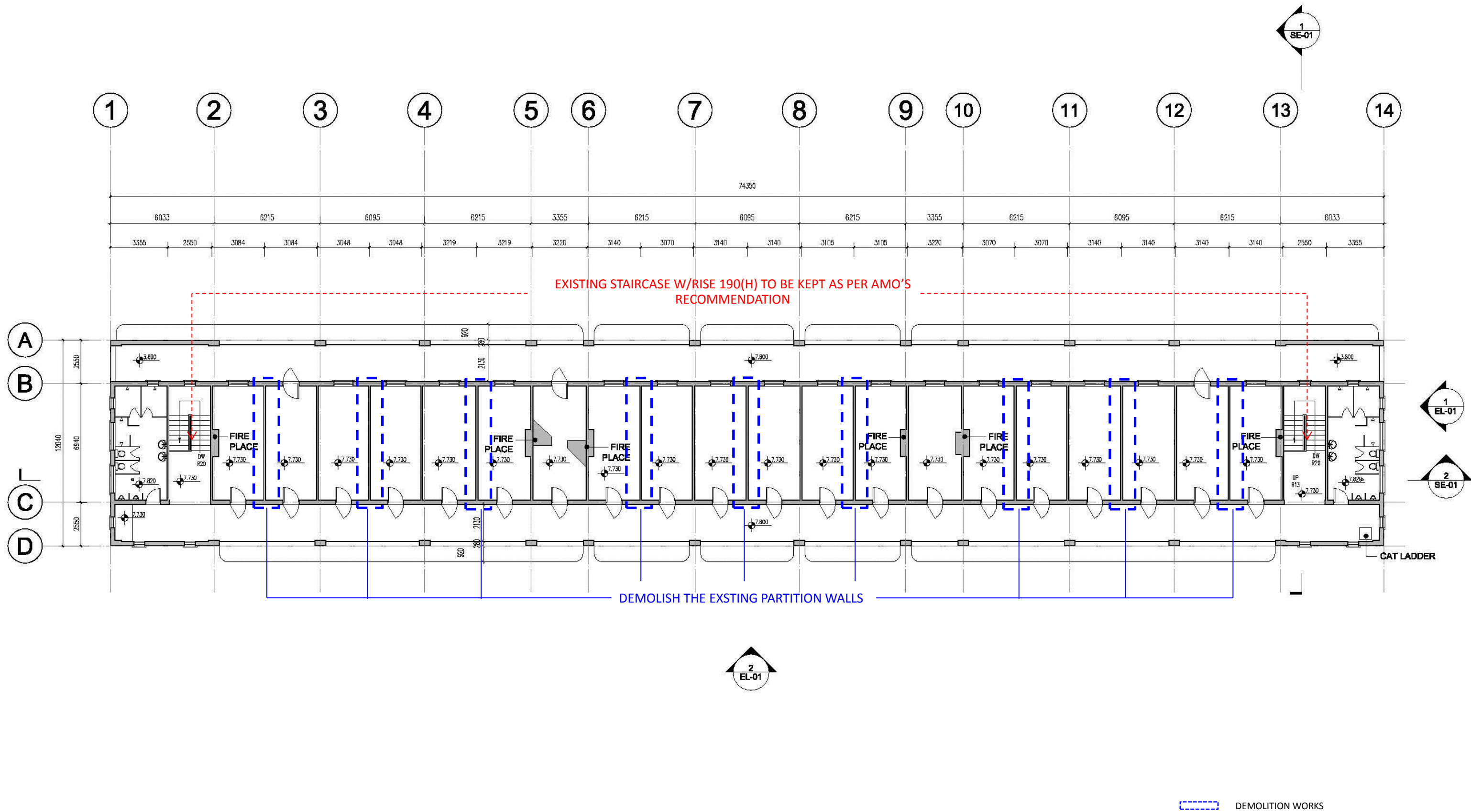


Figure 10: Existing layout plan of 2/F

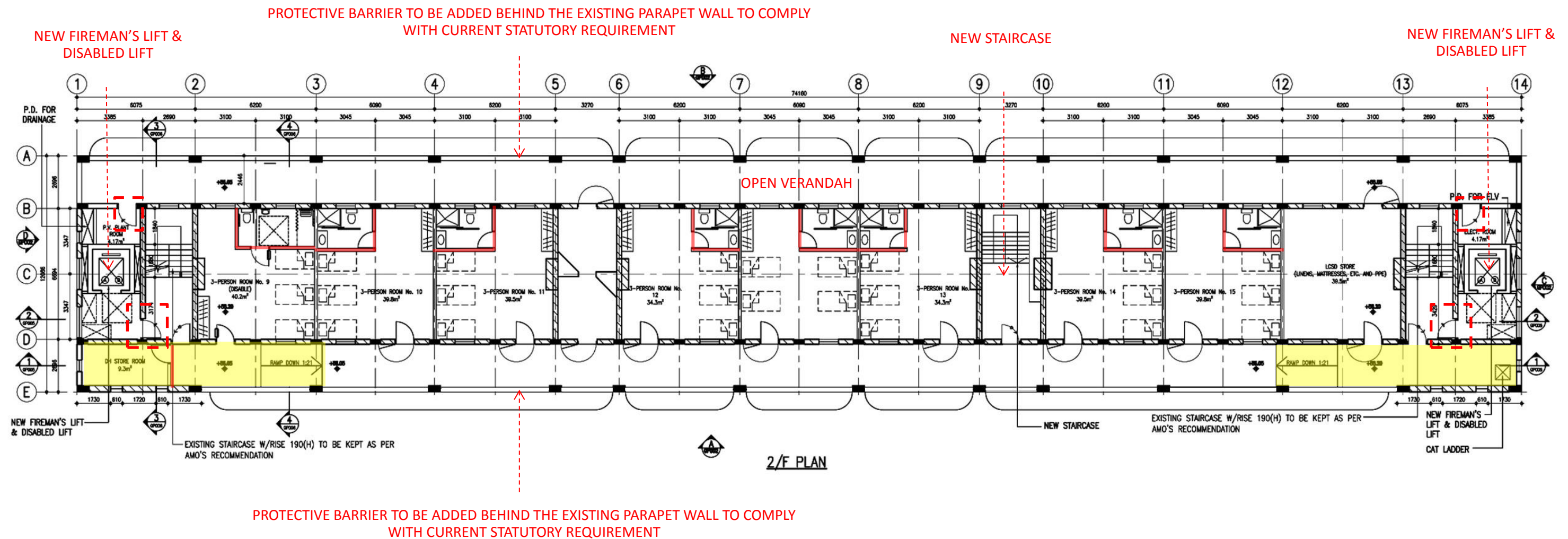



Figure 11: Proposed layout plan of 2/F

- NEW WALLS
 NEW DOOR OPENING
 FILL UP WITH LIGHT WEIGHT CONCRETE FOR BFA PURPOSE

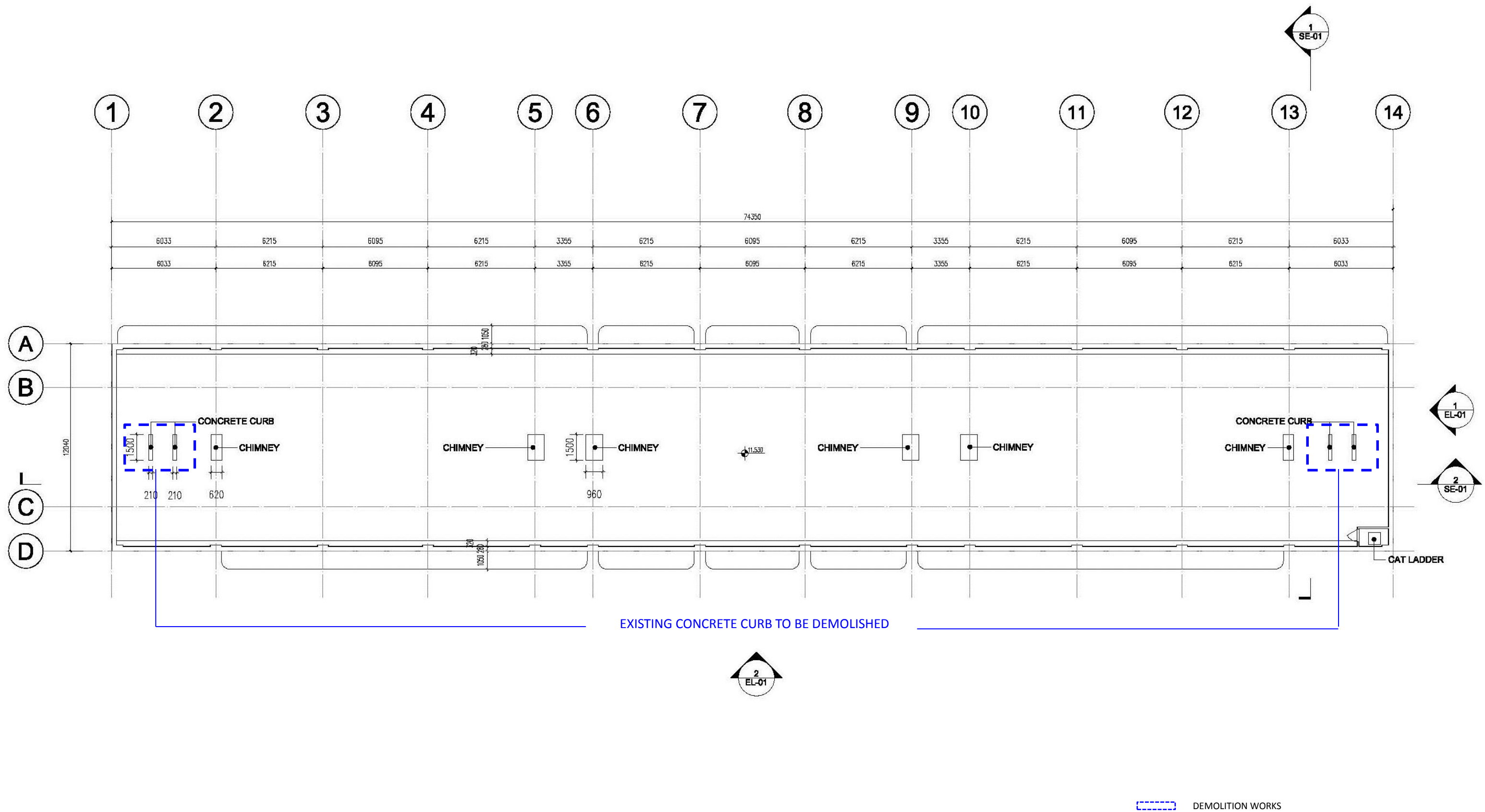


Figure 12: Existing layout plan of R/F

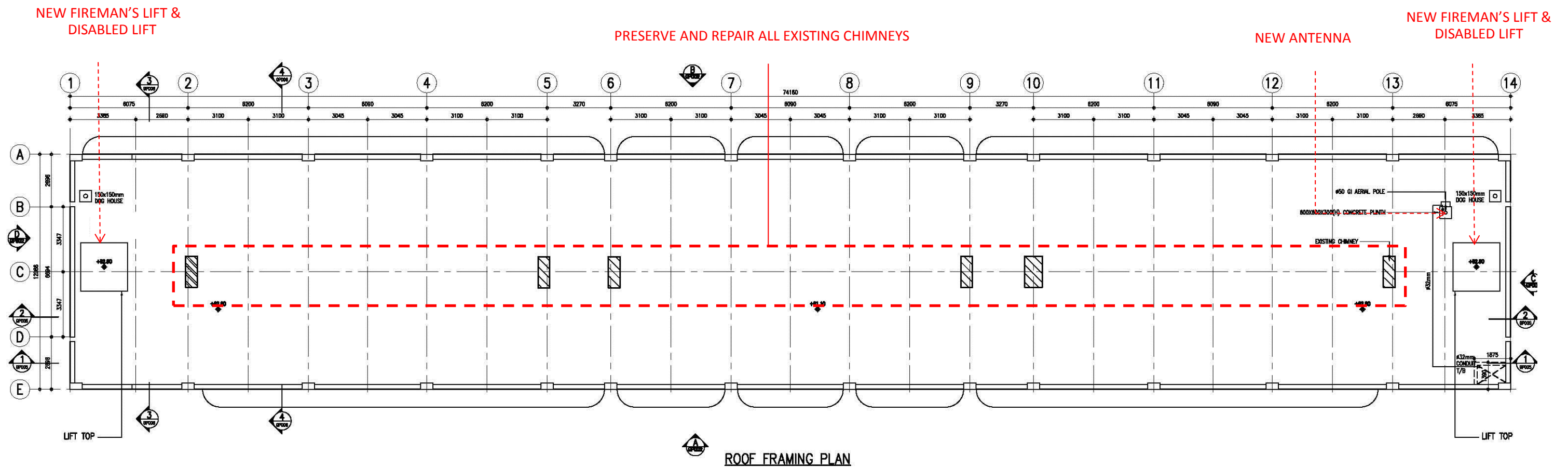


Figure 13: Proposed layout plan of R/F

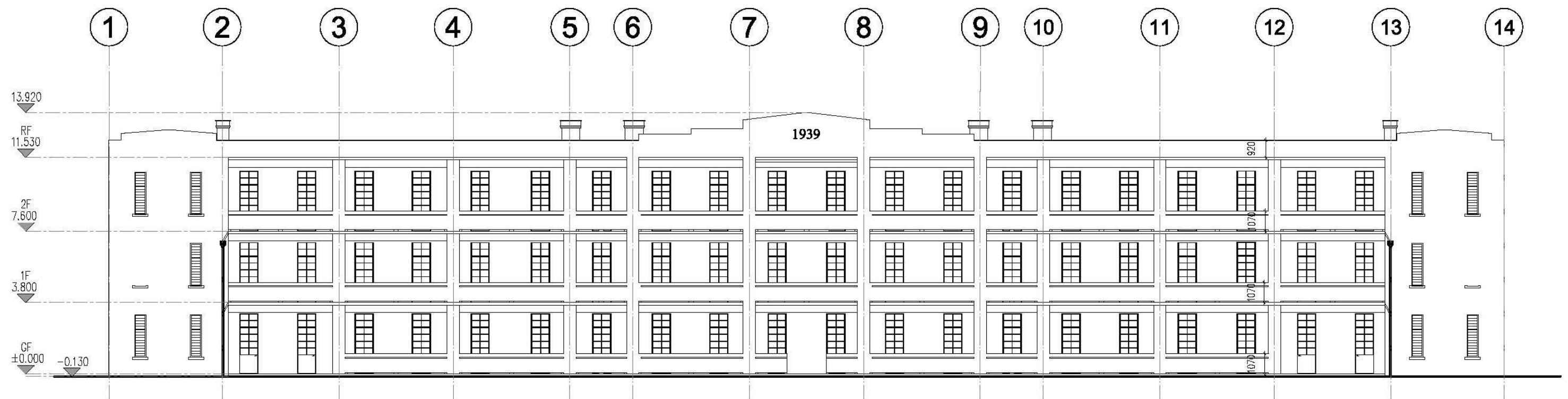


Figure 14: Existing Front Elevation

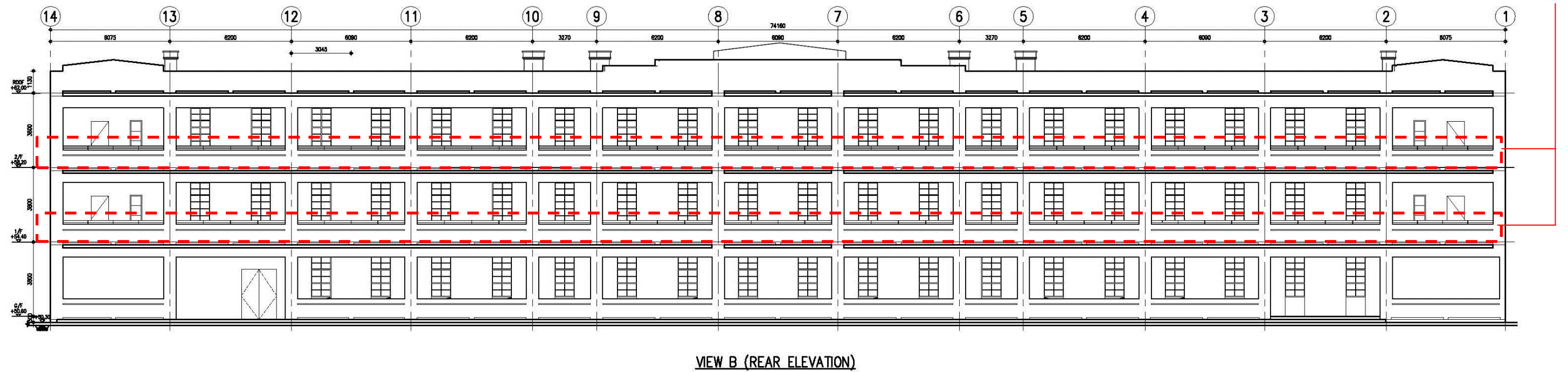
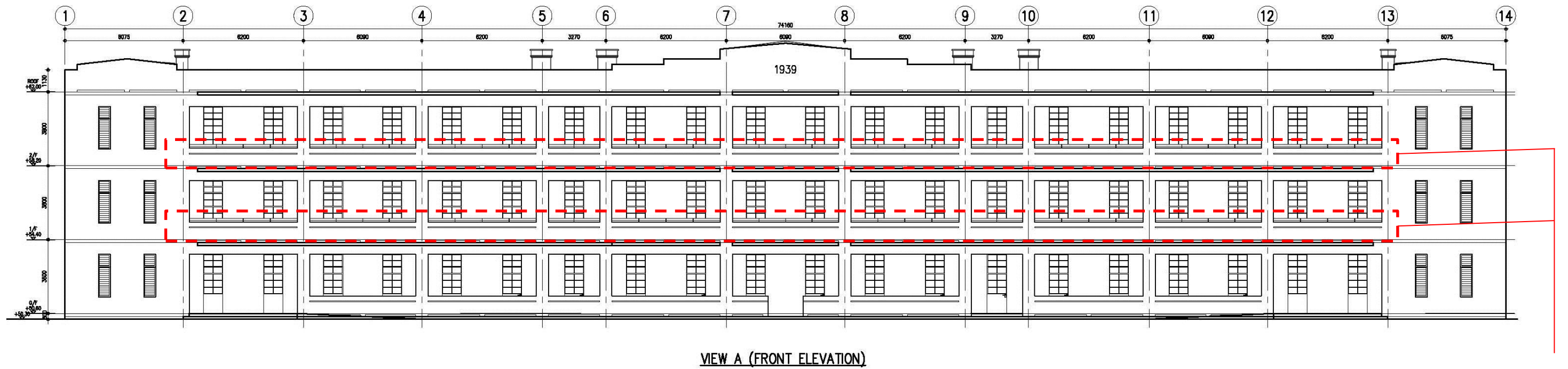


Figure 15: Proposed Front and Rear Elevations

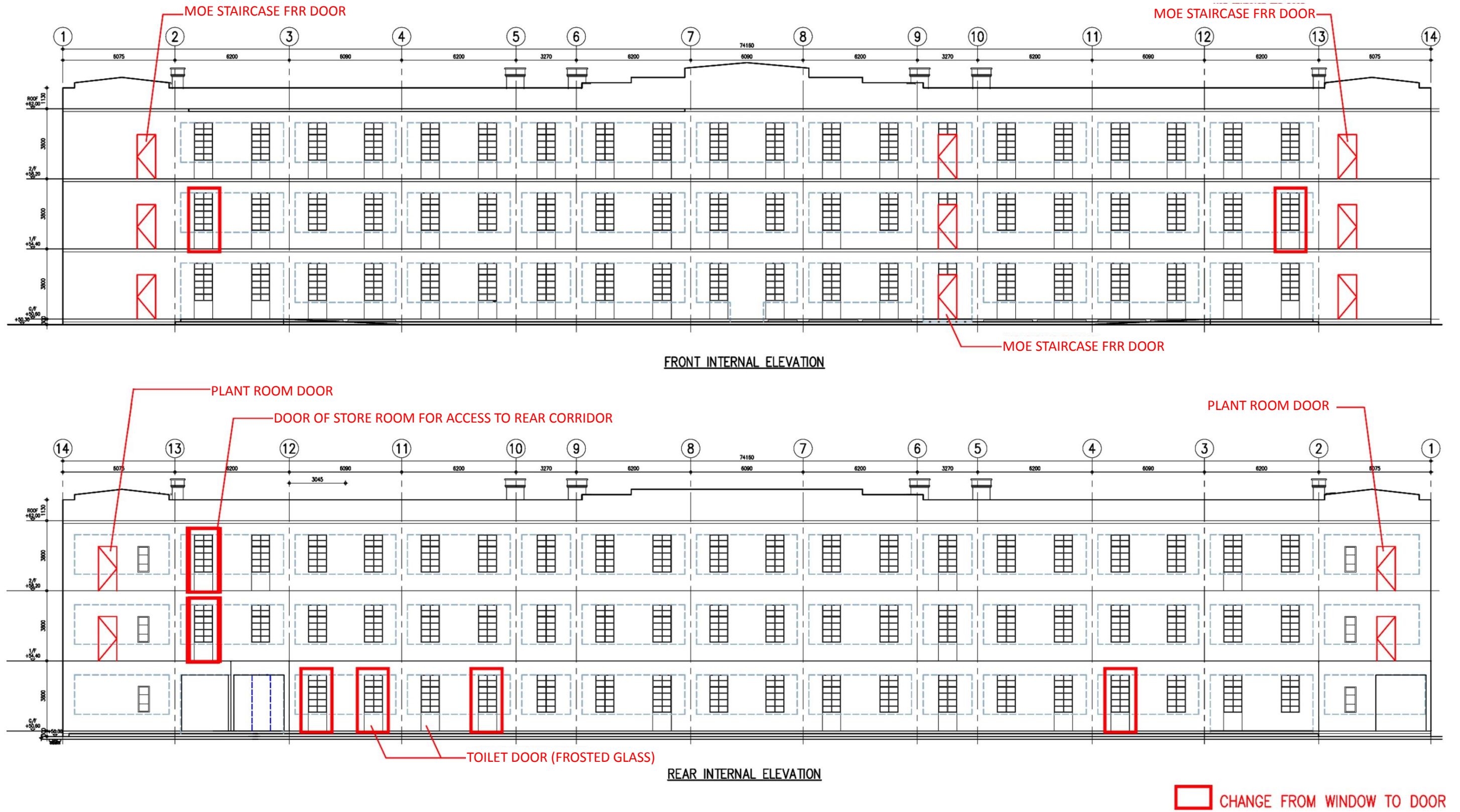


Figure 16: Diagrammatic Internal Elevations Showing the Changes of Window / Door Openings

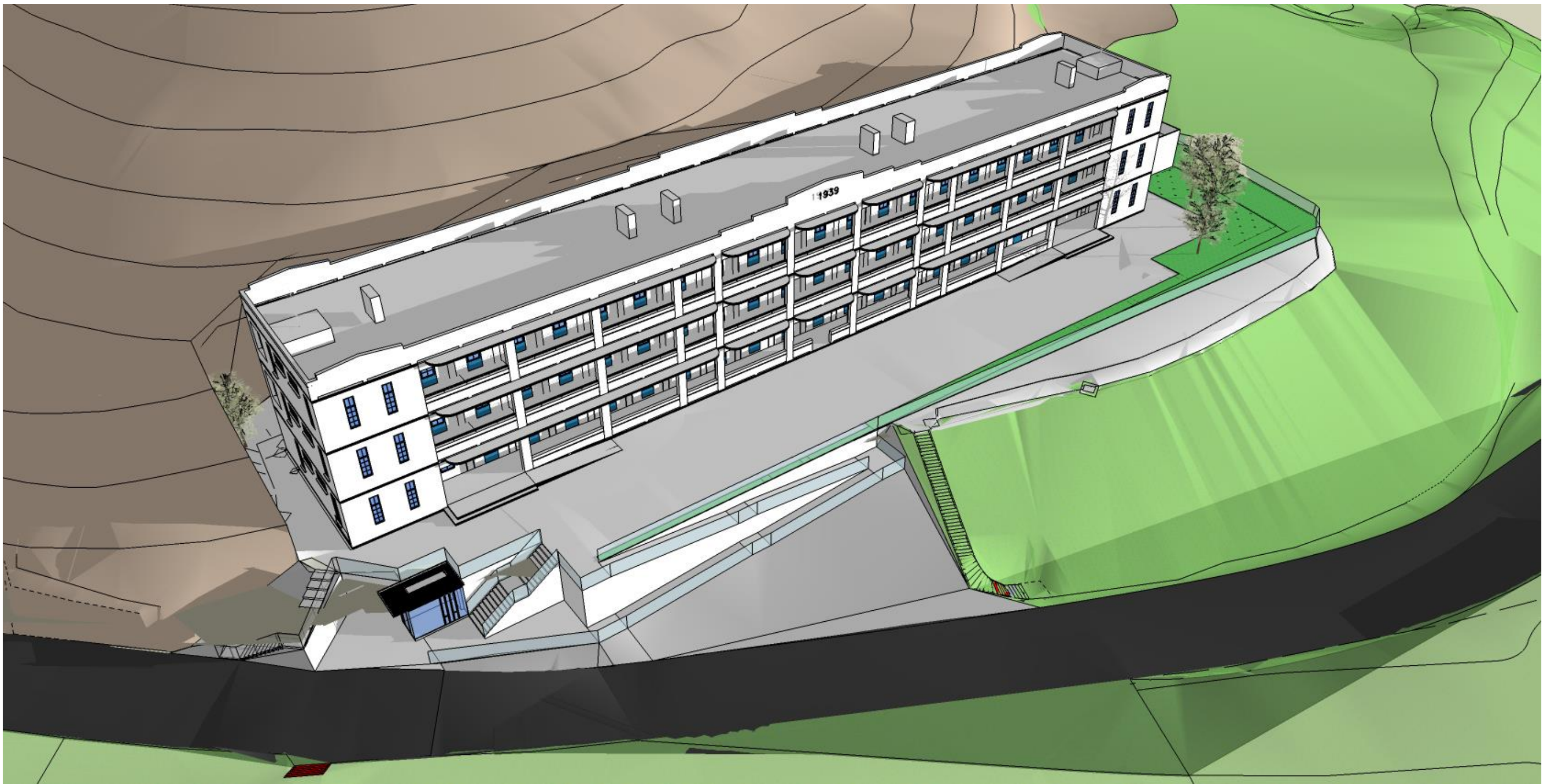


Figure 17: Perspective 1 of Block 3



Figure 18: Perspective 2 of Block 3