


**Minutes for Stage Gate 4 Review – PS00843 PEARL**

ESTATES

No	Item Comments	Action	By When	Category	# Docs	Links
<b>1</b>	<b>Welcomes, Introductions and Apologies</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
1.1	DS welcomed the Board and noted apologies.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>2</b>	<b>Previous Stage Gate Recommendations</b>				3	<a href="#">Edit</a> <a href="#">Docs</a>
2.1	AN confirmed that previous Stage Gate recommendations are captured later in the Aecom presentation.				4	<a href="#">Edit</a> <a href="#">Docs</a>
<b>3</b>	<b>Health &amp; Safety</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
3.1	The main focus on Health and Safety has been around Covid-19. The team have managed to continue working and maintain progression on site whilst complying with strict Government guidelines. A stock of PPE has been introduced to site and social distancing has been followed in accordance with Government restrictions to ensure that all staff and site team remain safe.				0	<a href="#">Edit</a> <a href="#">Docs</a>
3.1.1	TC highlighted that audits are carried out fortnightly as well as monthly checks undertaken by the Principle Designer, Orsa. TC confirmed that the Risk Register was last updated on May 6th 2020.				0	<a href="#">Edit</a> <a href="#">Docs</a>
3.1.3	TC to send updated PCI to MSac	: TC to send updated PCI to MSac.	28/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
3.1.4	MSa highlighted that the Project's Construction Phase Plan review, health and safety site inspection demonstrate a very good approach to health and safety management, including the latest Covid-19 controls.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4</b>	<b>Project Update - Volkerfitzpatrick:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.1</b>	<b>Architectural Update:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.1	NM from Bond Bryan talked the Board through the Architectural changes from Stage Gate 3 designs to Stage Gate 4 designs.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.2	The design changes on the ground floor layout include the fire exit door to the South East corner, the Sound Lab area, the racking layout, vehicle barriers and the external Fire Escape to the stairs. The design changes to the racking layout and external Fire Escape also apply to the first floor.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.3	NM highlighted that the larger Sound Lab alterations were instructed by the client team in May 2020, and confirmed the racking layout change has gone through multiple phases of approval with client team which was agreed by 24th April 2020.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.4	Design changes to the second floor include the plant deck door and the Fire Escape ladder locations; these amendments support access at ground floor level. There is also a change from a half door to single leaf door to improve the Fire Exit.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.5	The only architectural change to the roof is the extension of main roof; the flat roof to be removed and the main building roof extended to cover the stairs.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.6	DS queried whether the relevant AFM's have been liaised with regarding the cleaning store.				0	<a href="#">Edit</a> <a href="#">Docs</a>

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4.1.7	Action: JB to liaise with ACF to confirm that facilities have been engaged with regarding the cleaning store.	Action: JB to liaise with ACF to confirm that facilities have been engaged with regarding the cleani			0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.8	SC queried whether the revised external stairs meet the 1.8m fire protection rule.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.1.9	Action: NM to confirm the revised external stairs meet the 1.8m fire protection rule.	Action: NM to confirm the revised external stairs meet the 1.8m fire protection rule.			0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2	NE from Bond Bryan talked the Board through the design changes to landscape and external areas.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2	The finished floor level is raising from 11.9 to 12.2; all levels are now falling away from the building for drainage purposes on all elevations				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.1	Further changes include, external sloped fire escape, retaining walls added and removed, footpath amendment, bollard location rationalised, tactile paving studs, Sheffield cycle stands and the dog relief area.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.2	A sloped Fire Escape from the South East corner has been introduced in line with single leaf door change. A retaining wall has been added to the South East of the building along the foot path. NE highlighted that the addition of this retaining wall no longer provides direct access to footpath.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.3	The retaining wall is no longer needed behind the planter due to level changes and the retaining behind the bin and sub station enclosure is also no longer needed.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.4	The bollards were originally located within the planters. This has now been rationalised to be located next to the planters to better protect the building and the planters.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.5	The tactile paving studs specification has been altered to stop the paving blocks from cracking making it more structurally sound and will provide more longevity and ensures a. NM confirmed that Pip Jackson has been involved with decisions made on this and the dog relief area.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.6	BS queried whether there has been any reduction to areas of soft landscaping or ecology features. The team confirmed there had not				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.7	ACF questioned whether the sloped evacuation is accessible. The team confirmed that it is accessible and that the design follows current compliance standards.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.8	NE highlighted that the landscape specifications are still in progress and ensured that full sight and sign off from UCL will be upheld.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.9	SC queried whether the fire rating of the exterior cladding is A2.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.2.10	Action: NM to provide SC with a formal answer as to whether the fire rating of exterior cladding is A2.	Action: NM to provide SC with a formal answer as to whether the fire rating of exterior cladding is	01/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.3</b>	<b>Engineering Update:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.3.1	RP from Fairhurst confirmed the main civil changes are to reduce retaining wall to the north and to remove foul drain run under building and maintain gravity connection.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.3.2	Structurally, pile foundations are being changed to spread footings to improve on programme and reduce cost of groundworks. There are some steelwork changes since being brought into the steel fabricator's package.				0	<a href="#">Edit</a> <a href="#">Docs</a>

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4.3.3	PH highlighted that the air source heat pump units have changed from 4-pipe to 2-pipe due to there being little opportunity to take heat from an area that is cooling. The team confirmed that stakeholder shave been engaged however the change from 4-pipe to 2-pipe VRF needs verification submitted.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.3.3	Retaining wall geometry changed as a bi-product of raising the external FFL and the floor space is being extended in order to provide minimum staircase width.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.4</b>	<b>Mechanical and Electrical Update:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.1	PH from Volkerfitzpatrick confirmed that they are in the final stages of co-ordination and regular meetings with UCL Stakeholders have occurred.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.2	The reception area FCU's have been relocated to above the CLT to improve maintenance access. The quantity of AHU's has been reduced from 13 to 11 and the amount of jet diffusers and VAV boxes has been increased to reduce noise levels.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.4	Action: Verification to be evidenced to EM&I and Sustainability for comments regarding the change from 4-pipe to 2-pipe.	Action: Verification to be evidenced to EM&I and Sustainability for comments regarding the change fr	01/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.5	Air conditioning has been added to the stage lighting equipment room to take care of the equipment heat gains.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.6	The mechanical services in the Sound Lab area are currently being revised to suit the new layout. NT questioned the ventilation and lighting in the Sound Lab. The team confirmed that a Fan Core unit is being installed.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.7	Data layouts have been developed in conjunction with UCL; Stage Gate 3 designs had data cables running back to comms rooms, UCL (ISD) have since requested a change to have local data cabinets.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.8	Lighting in the Groove has been re-oriented to suspend a continuous system. MF confirmed P&P are happy with the new lighting designs as they still work architecturally.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.9	The AV boxes at Cat Walk level have been revised to incorporate 16A commando sockets in place of standard 13A double sockets. This change was made to accommodate ARUP's requirements.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.4.10	PH then highlighted some potential future M&E changes.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.5</b>	<b>Fire Strategy:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.5.1	Structurally, pile foundations are being changed to spread footings to improve on programme and reduce cost of groundworks. There are some steelwork changes since being brought into the steel fabricator's package. Retaining wall geometry changed as a bi-product of raising the external FFL and the floor space is being extended in order to provide minimum staircase width.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.5.1	Structurally, pile foundations are being changed to spread footings to improve on programme and reduce cost of groundworks. There are some steelwork changes since being brought into the steel fabricator's package. Retaining wall geometry changed as a bi-product of raising the external FFL and the floor space is being extended in order to provide minimum staircase width.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.5.2	SC questioned whether Pearl PV works will require significant power supply highlighting designs ned to be in line with safety.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.5.3	Action: PA to share Fire Strategy with UCL Stakeholders.	Action: PA to share Fire Strategy with UCL Stakeholders.	01/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.6</b>	<b>BREEAM Update: David Barnes</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>

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4.6.1	DB from Volkerfitzpatrick confirmed that UCL PEARL is currently achieving excellent at 71.6% and the building is now carbon negative.				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.6.2	DB recommended obtaining additional credits to ensure this status is maintained. BS praised the current status however agreed that there is still work on improving the margin. BS also highlighted that energy modelling would be needed to feed in to post strategy work.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>4.7</b>	<b>Construction update:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
4.7.1	TC confirmed the programme is on week 20 of 53 with practical completion date targeted for January 2021. The Next key date is 8th June when Cladding Installation commences to West elevation and roof.				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>5</b>	<b>Project Update – Aecom:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.1	AN highlighted that despite the impacts of Covid-19, PEARL remains on programme for completion of the Facility in April 2021. The team have re-sequenced works whilst adhering to strict Government guidelines. Key packages have been issued and engagement is continuous with UCL Stakeholders and design teams				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.1.1	Planning application was submitted in August 2019, approved at committee in November 2019 and decision notice was issued in March 2020. UCL are finalising land deal which Megan Putt has involvement with.				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.1.2	AN confirmed that monthly board meetings continue with updates provided on health & safety, progress, approvals required and cost reporting and shared the Stakeholder Engagement during Stage Gate 4 process. The next meeting is booked for Wednesday 20th May.				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.1.3	Action: Soft landings tracker to be shared with DS and team for review.	Action: Soft landings tracker to be shared with DS and team for review.	05/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
5.1.4	The main project risk is associated with Covid-19. Other risks include integration of specialist packages into the design, discharge of planning conditions and delays in the design information submissions impact on construction				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>5.2</b>	<b>Response to Stage Gate 3 Recommendations:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.2.1	AN shared the design team response to all SG3 recommendations (see presentation, slides 7-8).				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.2.2	ME raised concern regarding the budget; NT confirmed he is working with Simon Lockhart regarding these costs. The £300k gross in the Business Case may be insufficient for going to tender.				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.2.3	Action: Visibility of cost estimates to be shared with ME and EM&I. NT/JB	Action: Visibility of cost estimates to be shared with ME and EM&I.	05/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>5.3</b>	<b>Post Stage Gate 4 – Items For Development:</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.3.1	Items for development include Babcock dolly design and integration, Plane/train details, AV Design, FFE Package, Workshop Equipment and Post Completion PPM/FM.				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.3.2	The AV design is currently being updated. FFE package is also having updated proposals for review. It was also highlighted that there are discussions around the double height space in 'The Rise' over whether this could be a temporary exhibition space.				0	<a href="#">Edit</a> <a href="#">Docs</a>
5.4	Cost update:				0	<a href="#">Edit</a> <a href="#">Docs</a>
<b>6</b>	<b>A.O.B</b>				0	<a href="#">Edit</a> <a href="#">Docs</a>

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6.1	ME highlighted that SG4a given in December 2019 was for demolition only. Construction has already started and therefore this SG4b approval is retrospective and cannot provide the governance/assurance for the period from construction start to formal SG4b approval.				0	<a href="#">Edit</a> <a href="#">Docs</a>
6.1.1	JB highlighted there may have been a derogation however the 4a approval should have only covered up until the end of derogation.				0	<a href="#">Edit</a> <a href="#">Docs</a>
6.1.2	Action: Written approval to start construction works to be evidenced				0	<a href="#">Edit</a> <a href="#">Docs</a>
6.2	Action: Project team to engage with Lesley May and all soft services to comply with the soft landings process and for them to confirm they are satisfied.	Action: Project team to engage with Lesley May and all soft services to comply with the soft landing	01/05/2020		0	<a href="#">Edit</a> <a href="#">Docs</a>
7.1	7.1 DS granted Stage Gate 4 approval on the following conditions: - Confirmation that facilities have been engaged with regarding the cleaning store - Confirmation the revised external stairs meet the 1.8m fire protection rule - Update Soft Landings Tracker and complete meeting - Understand landscaping designs - Confirmation fire rating of exterior cladding is A2 - Evidence air source from 4-pipe to 2-pipe to M&E for review and sign off - Confirmation of Maintenance cost estimates to be shared with Martin Earlam - Fire strategy provided to relevant Stakeholders - Asset plant list to be provided - PV Fire Safety strategy to be confirmed - Confirmation all Stage Gate documents have been submitted, reviewed and approved - Written approval to start construction works to be evidenced				0	<a href="#">Edit</a> <a href="#">Docs</a>
7.1.2	DS noted that this is a retrospective approval as construction has started.				0	<a href="#">Edit</a> <a href="#">Docs</a>