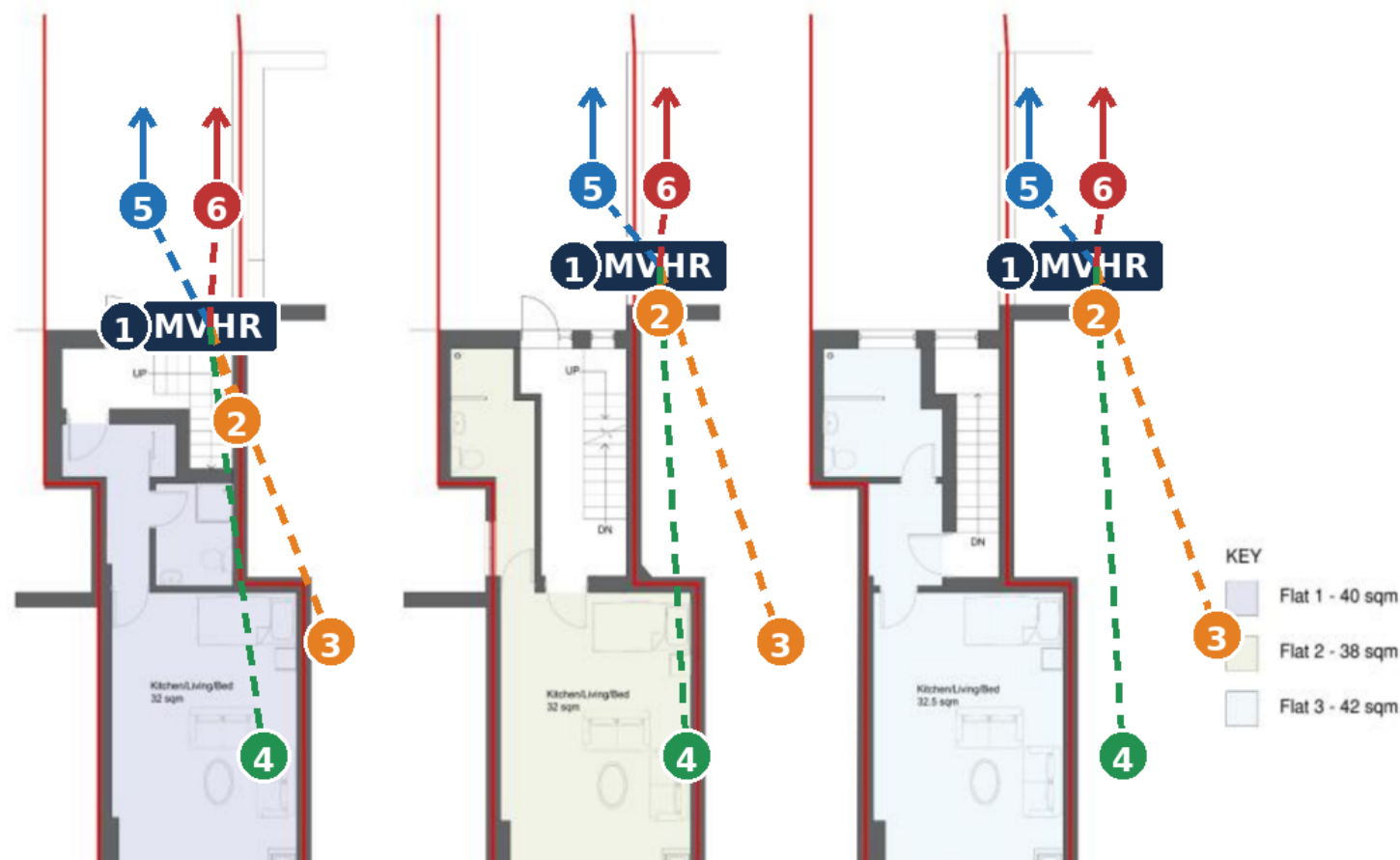


PROPOSED ACOUSTIC MITIGATION AND MVHR LAYOUT

7 King Street, Gravesend - planning reference 20260090



LEGEND

- 1 Titon HRV1.6 Q Plus TP409HMB MVHR unit within an accessible high-level service cupboard in the rear lobby/service zone.
- 2 High-level extract terminal in shower/WC.
- 3 High-level extract terminal serving the kitchen zone.
- 4 Supply terminal serving the studio living/sleeping area.
- 5 Fresh-air intake through rear elevation only.
- 6 Exhaust discharge through rear elevation only.

FIXED DESIGN NOTES

- One independent MVHR system per flat; no shared residential air paths.
- 125 mm rigid or semi-rigid smooth-bore ductwork, insulated where outside the thermal envelope.
- No passive trickle ventilators and no front-elevation penetrations.
- Kitchen extract is via MVHR; any cooker hood is recirculating only.

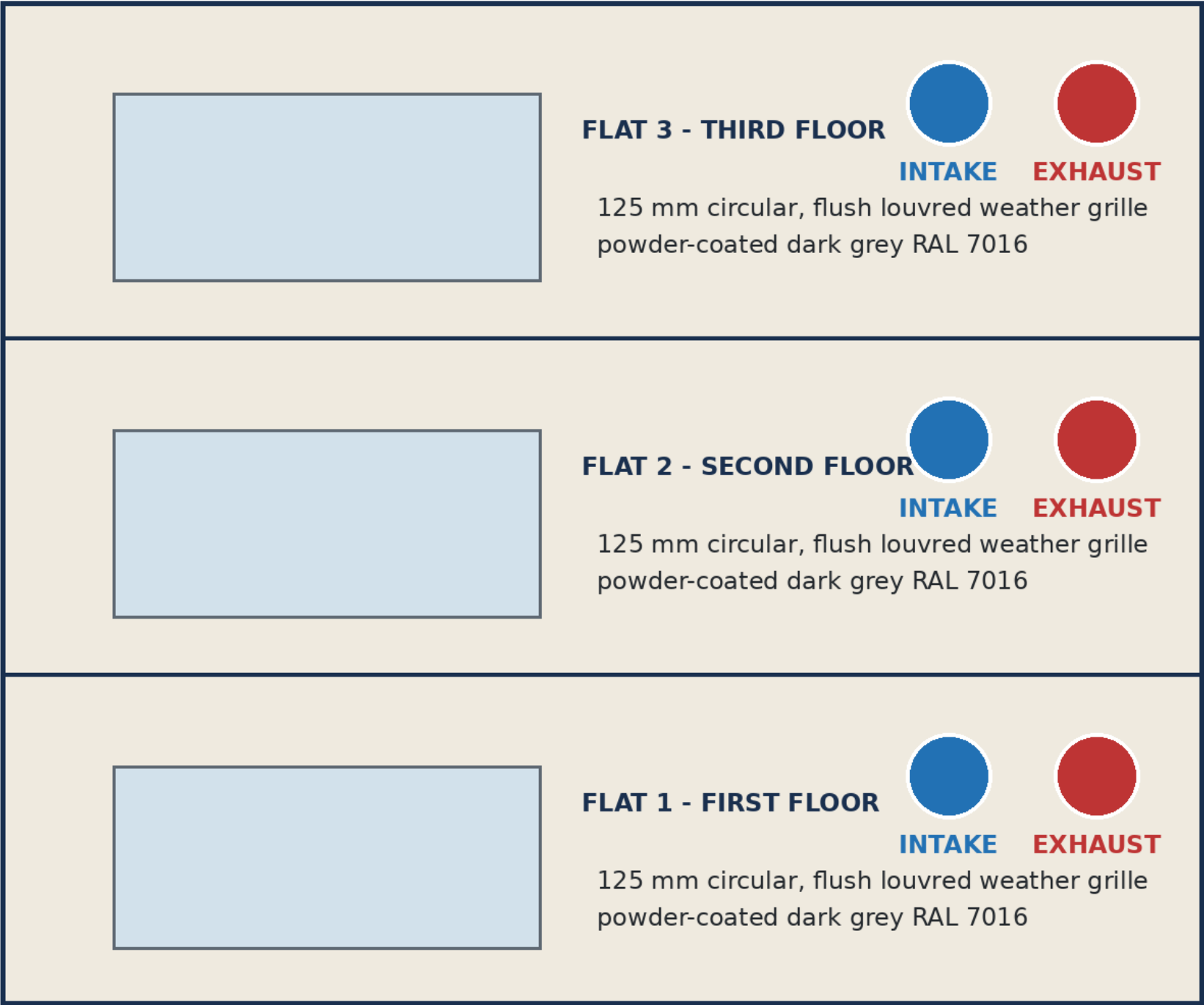
Base layout: Drawing 003A, Proposed Floor Plans, dated 21/01/2026. Service overlay is schematic and does not alter the approved room arrangement.

Drawing: DDD-C34-01 Scale: NTS Revision: P1 - For condition discharge

REAR ELEVATION - MVHR INTAKE AND EXHAUST TERMINALS

No ventilation grille or duct penetration is proposed on the King Street frontage.

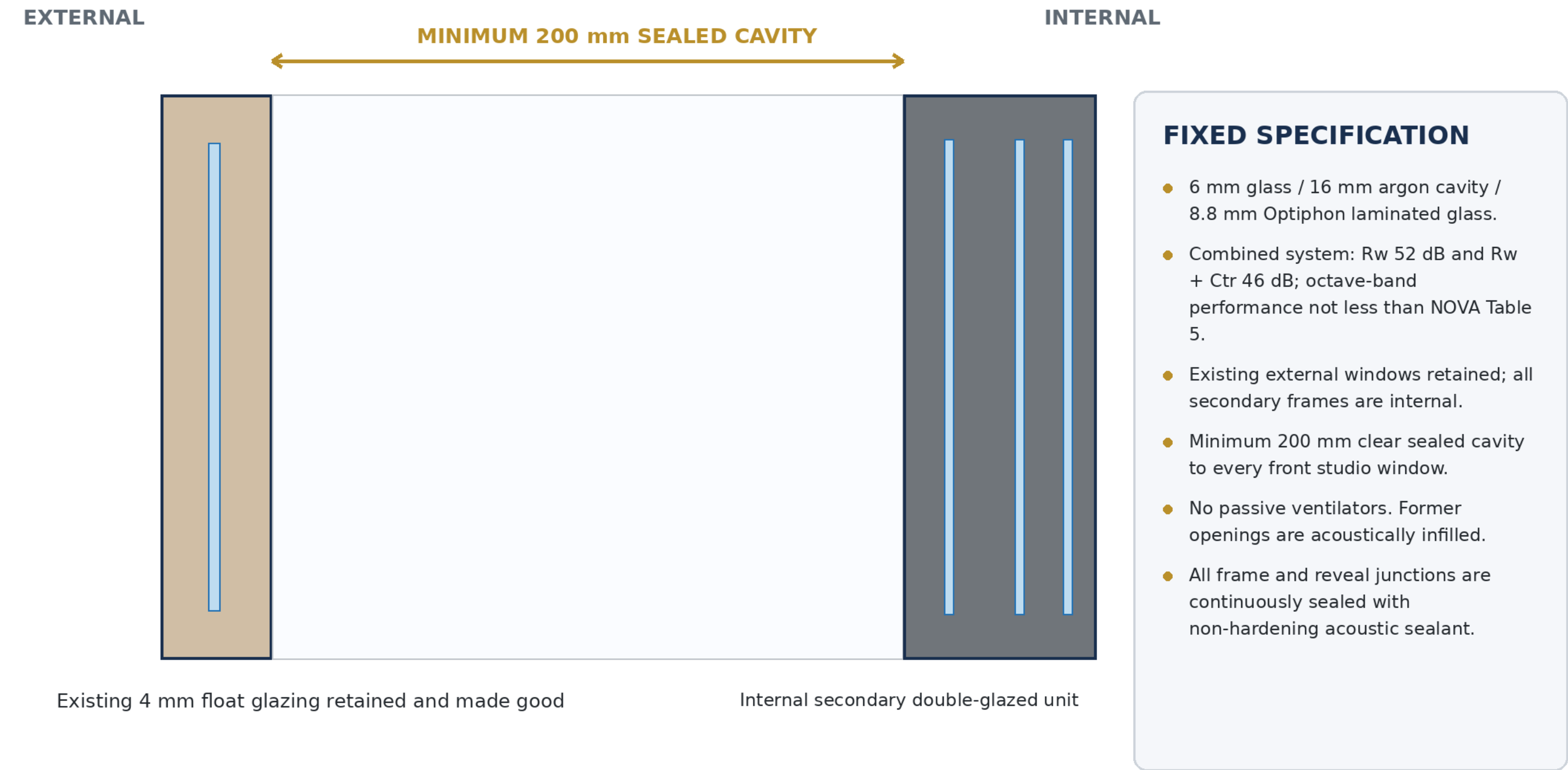
Minimum 1.0 m centre-to-centre or greater manufacturer requirement



EXTERNAL APPEARANCE

- Six grille faces in total: one intake and one exhaust per flat.
- Pairs aligned vertically to minimise visual clutter on the rear elevation.
- No exposed external ductwork; all ducts remain within the building.
- Terminals set at high level. Penetrations are sleeved, weather sealed and made good in matching masonry/render.
- Intake and exhaust are separated and arranged to prevent recirculation; exhaust is positioned downwind where practicable.
- Grilles are non-reflective dark grey and subordinate to the Conservation Area building.

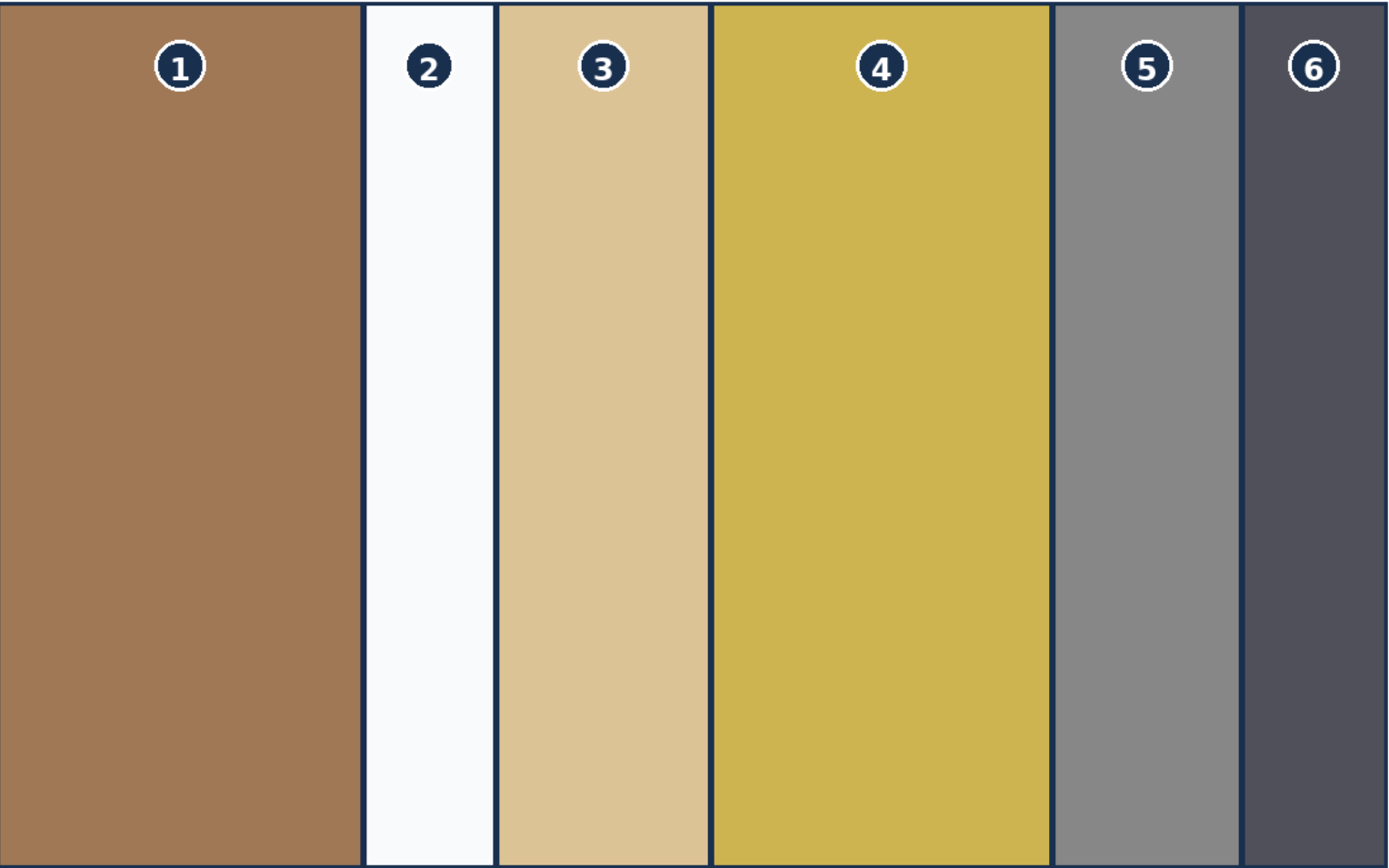
SECONDARY GLAZING - ACOUSTIC AND HERITAGE DETAIL



Drawing: DDD-C34-03 Scale: NTS Revision: P1 - For condition discharge

SEPARATING WALL UPGRADE - SPORTS BAR INTERFACE

Independent acoustic lining to the full extent of the wall adjoining the sports bar.



PERFORMANCE / INSTALLATION

- Design target: 76 dB DnT,w under the NOVA worst-case music-bar model.
- Studwork and boards are fully independent of existing masonry; no rigid bridge is permitted across the 50 mm cavity.
- Board joints staggered. All perimeters, service penetrations and junctions sealed with flexible acoustic mastic.
- Sockets are not back-to-back and are avoided on this wall where practicable.
- Any common joists, beams or steelwork identified during opening-up are independently encased following review by the acoustic consultant.

- | | |
|---|--|
| 1 Existing 250-300 mm masonry wall | 4 140 mm full-fill acoustic mineral wool, minimum 60 kg/m3 |
| 2 Minimum 50 mm clear air gap | 5 2 x 22 mm cement particle board, minimum 1300 kg/m3 |
| 3 Independent minimum 90 mm timber stud | 6 19 mm iKoustic MuteBoard 2 or equal |

Drawing: DDD-C34-04 Scale: NTS Revision: P1 - For condition discharge

SEPARATING FLOOR AND FLOATING FLOOR UPGRADE

Applied over the ground-floor retail unit; floating floor principle continued through the residential floors to control low-frequency vibration.



LAYER SCHEDULE

- 1 Final floor finish (by others)
- 2 20 mm flooring particle board
- 3 DECKfon 26T resilient floating floor
- 4 4 mm mass-loaded vinyl - iKoustic MuteBarrier or equal
- 5 Existing approx. 200 mm timber joists with 150 mm mineral wool, minimum 45 kg/m3
- 6 Isolation clips and furring channels
- 7 2 x 15 mm Gyproc SoundBloc plasterboard, minimum 12.6 kg/m2 per board

INSTALLATION AND VERIFICATION

Mineral wool is tightly and evenly fitted. Board joints are overlapped and staggered. Flexible acoustic mastic is applied continuously at all perimeters. No rigid connection is permitted across the resilient floor or suspended ceiling. The target separating-floor performance is at least 55 dB DnT,w + Ctr, subject to post-completion testing by a UKAS-accredited sound-insulation testing organisation.

Drawing: DDD-C34-05 Scale: NTS Revision: P1 - For condition discharge

MVHR UNIT, SERVICE CUPBOARD AND AIRFLOW SCHEDULE

One independent system per studio flat.



DESIGN AND COMMISSIONING SCHEDULE

Mode	Kitchen extract	Shower/WC extract	Studio supply
Background	7 l/s	6 l/s	13 l/s
Boost	13 l/s	8 l/s	21 l/s

Purge / summer: highest available balanced rate with summer bypass; openable windows retained for short-duration purge.

ACOUSTIC / DUCT CRITERIA

- Background system noise: not more than 30 dB LAeq,T / NR25 in the studio sleeping area.
- Daytime living-area system noise: not more than 35 dB LAeq,T / NR30.
- Maximum duct velocities for NR25 duty: main 3.0 m/s, branch 2.5 m/s, final runout below 2.0 m/s.
- 125 mm rigid smooth-bore ducts; proprietary attenuators fitted on room-side supply and extract branches where required.
- Condensate drain trapped and insulated; access retained for filters, fans, controls and commissioning points.