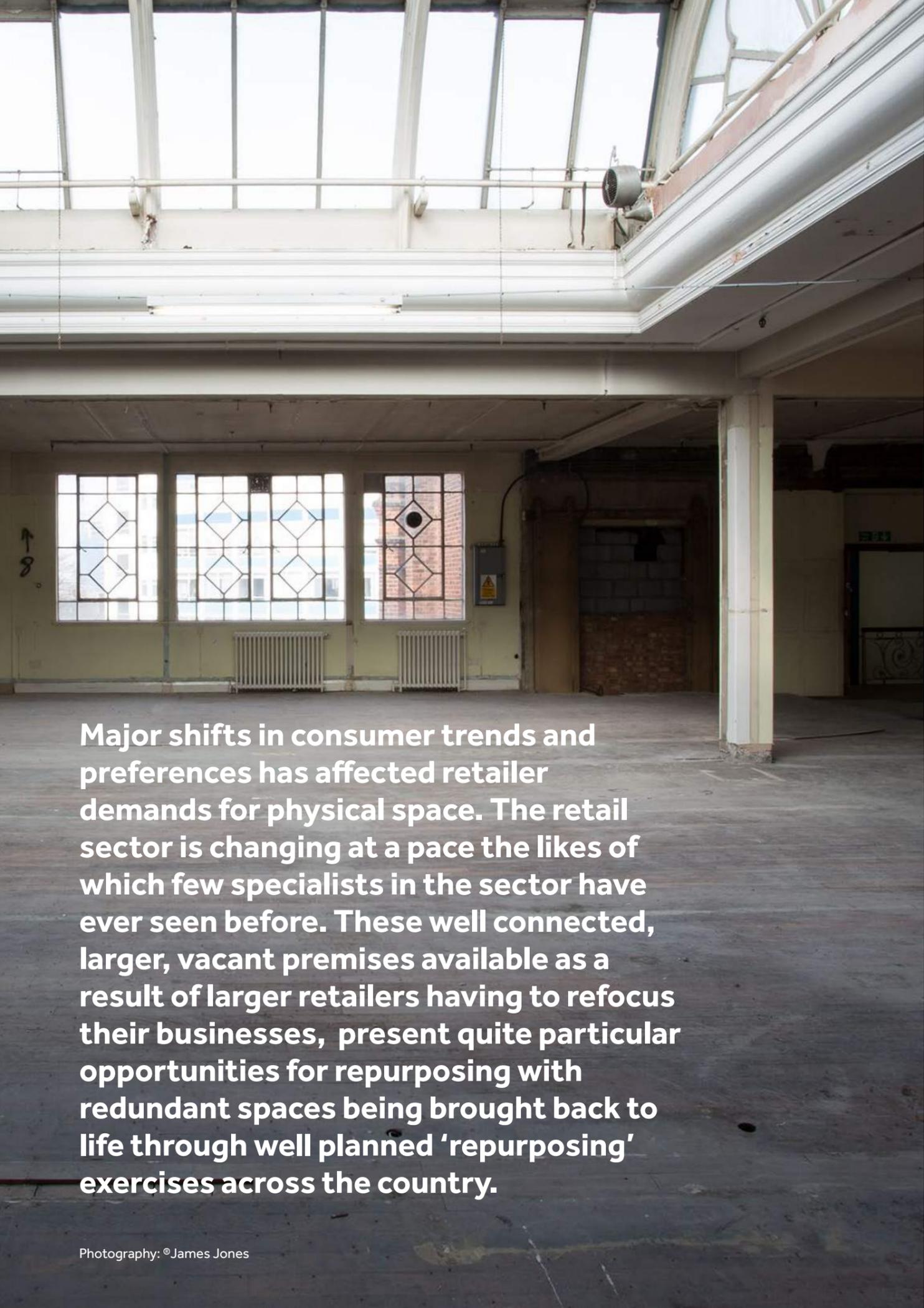


Revo

Retail. Property. Community.

**An insight into
repurposing:
breathing new life
into retail assets.**



Major shifts in consumer trends and preferences has affected retailer demands for physical space. The retail sector is changing at a pace the likes of which few specialists in the sector have ever seen before. These well connected, larger, vacant premises available as a result of larger retailers having to refocus their businesses, present quite particular opportunities for repurposing with redundant spaces being brought back to life through well planned 'repurposing' exercises across the country.

The opportunity

Repurposing projects are often found to present viable alternatives to demolition and rebuilding since the vacant shell can usually be proven to be cost effectively adapted to accommodate new, multiple uses.

Current trends include repurposing multi-level assets in to any combination of:

Workplace

Leisure

Market

Residential

Restaurant

Cinema

Serviced apartments

Retail

Health

Hotel

Food store

Capturing all challenges associated with the introduction of a variety of new use types within a repurposed retail asset can't be achieved within a single guidance note, however this insight paper provides advice, key considerations and recommendations for further consideration.

When considering the implications of repurposing a built asset, there may be no option but to admit that the vacant asset is no longer fit for purpose as a retail or leisure shell. Certain uses, such as residential, demand shallower formats and more variegated environments for people to live which cannot be economically delivered through a traditional retail shell. Whilst nearly anything can be delivered anywhere, returns may not support the change in terms of costs and viability and economics.

Some Local Authorities have identified this challenge and started taking ownership of the situation, buying distressed assets in the heart of their town centres from owners directly and looking at wholesale or partial demolition in order to enable a wider transformation of the heart of their community; creating places to live.

Refer to Revo technical note GN113 To demolish or to rebuild? – Existing asset evaluation for change: key considerations.

Repurposing considerations

In preparing for a repurposing project a number of baselines are essential for ratification prior to commencing works. The proposed use or uses for the repurposed asset should be clearly defined with shell specifications defining the requirements for the use type(s) proposed clearly set out to inform later viability appraisals.

Record information

Built assets vary in age and construction. Older buildings will very likely have been refurbished and altered several times over their lives and as; often-larger units will have been created out of other smaller units. As such, it is essential that as much research as possible is carried out into the property before committing to any scheme.

Record drawings maybe available, but they not be 'as-built' shopping centres may hold records of previous tenant fit outs and some cases, Building Control may hold records of the original design intent.

At some point it will be necessary to have an intrusive and measured survey carried out will full access to produce accurate information, a risk register for the property and potentially a full asbestos survey. The more accurate the surveys, the less overall risk there will be developing new proposals.

Tenant/lease requirements

At a particular time in the repurposing project, tenants and potential occupiers will be identified and normally these tenants will present their own particular heads of terms, which are often not particular and can assume a new build provision.

The design team will need to bridge the gap between the tenant and client to demonstrate what might be viable within the constraints presented by the as built asset.

Planning approvals

Any significant change from the primary use of the building will require approval through the planning process. Early discussions with local authorities are recommended through the pre-app process and usually these changes will be sympathetically received on the basis that they are helping to rejuvenate a distressed asset or area.

Building Regulations

Within a repurposing project, approaches to particular Building Regulations will need careful consideration to ensure both compliance and to ensure that there is flexibility to meet new tenant aspirations. Whilst compliance is required, certain regulations are best considered at an early stage due to their impact on viability of any scheme.

Part L

Approved Document Part L is the Building Regulation relating to conservation of fuel and power in new and existing buildings. Part L1 relates to dwellings, Part L2 relates to non-dwellings. In an existing building, to be refurbished, full compliance with the Building Regulations can be difficult since there are inherent constraints in working within an existing built fabric.

The Building Regulations acknowledge this point, however consequential improvements may need to be demonstrated with operational efficiencies to the building overall but these need to be demonstrably viable; financially and practically.

Energy Performance Certificate (EPC)

The production of an Energy Performance Certificate (EPC) is a legal requirement for presentation by a property owner to any third party renting or purchasing a space.

EPC's provide standardised energy performance ratings, graded from A (high performing) to F (low performing), the establishment of which is a by-product of the Part L analysis.

Many tenants and developers have minimum EPC standards to meet in line with their overarching corporate social responsibility charter. This requirement should be established as soon as possible in the briefing period.

Refer to Revo guidance note GN84 Energy Performance Certificates and visit <https://www.gov.uk/government/collections/energy-performance-certificates> for further information on the requirement for EPC's.

Fire Strategy

These significant changes to the building will almost certainly impact on the fire strategy and smoke control for the building and this is unlikely to just be dealt with under building regulations approvals and will require consultation with the local fire brigade who will expect to see an updated strategy document prepared.

Traditionally shopping centres and department stores would have been built according to, BS 5588-10:1991 "Fire precautions in the design, construction and use of buildings" and whilst the current approach to fire design, is compliance with Part B of the building regulations – Buildings other than dwellings. BS 9999 provides more flexibility in terms of design as it is less prescriptive than Part B in that it allows for calculations based on a buildings specific risk profile. BS 9999 also deals specifically with Shopping Complexes as an entity in their own right whereas part B is more limited.

The impact of the new fire strategy on any scheme should not be underestimated as it can define the viability of any new layout or occupancy.

Existing fabric, structural capacity and flexibility

Early determination of heights across all levels is important to enable repurposing viability studies to be realistic.

Understanding what constraints are presented by an existing shell is critical in supporting considerations around repurposing options. Restrictive heights, floor loadings, etc. may influence decisions around potential tenure.

As a very general rule of thumb, typical clear heights required for uses may be as follows:

Use	Clear height (to underside of structure)		Typical Super imposed loading allowance
	Minimum	Preferable	
Retail	3.5m	5.5m	4+1kN/m ²
Leisure	Varies	5-6.0m	5kN/m ²
Hotel	2.9m	3.5m	2-4kN/m ²
Office	3.5m	Varies	3kN/m ²
Residential	2.9m	Varies	1.5kN/m ²

In relation to the structural loadings we would note that it is both the imposed (in use loading) and the finishes loadings that need to be considered as a whole situation including additional acoustic or specific floor build-up requirements that are specifically necessary.

Building services

Repurposing projects can present quite particular building services challenges as a single occupation/tenancy multi-storey asset will most likely have a set of single service intakes and a unitary plant/distribution strategy.

Any intensification of uses will likely result in a new servicing strategy being required and a new plant strategy to be developed. The quantity of mixed uses, requirements of tenancy agreements and the degree of intensification will impact on the servicing of the built asset in varying degrees.

A useful reference guide is the Revo guidance note Servicing Food and Beverage which highlights the implications of introducing A3 uses in previously A1 environments.

The building services strategy will need to respond to the demands of multi-tenancy/tenure and consider strategic services related items including: and any particular requirements of the following headline strategic documents:

- Planning benchmarks
- Building regulations
- Development targets
- Agreement for leases
- Standard tenant specifications
- Local development standards and policies

A careful assessment of the above drivers will influence a series of strategic services related items, including:

- Incoming services strategy
- Metering strategies
- Plant accommodation strategy
- Vertical connectivity (risers)
- Air paths strategy
- Cross contamination
- Vertical transportation
- Fire strategy
- Acoustic mitigation strategy
- Airborne noise management
- Vibration
- Plant selection/specification
- Air quality
- Energy performance
- Renewable applications
- Fire strategy
- Sprinkler provision

Drainage

As a general recommendation, the opportunity to retain and reuse all foul and surface water connections at ground/slab level should be established as early as possible.

Significant adjustments to existing below ground/slab drainage connections may be restrictive and expensive.

Where a common foul/surface water trunk sewer has previously existed, a local drainage authority may seek the opportunity to introduce separate foul and surface discharge locations externally to the development property as part of an application for connections from a repurposing project.

Foul and Rainwater drainage

Depending upon the nature of the repurposing project, there may be an increased demand for foul drainage provision with multiple vertical stacks and horizontal transfers to be accommodated within an existing structure. Dependent upon the scale of a repurposing project, a local authority may also seek to introduce restrictions on rainwater and surface water run off rates.

Rainwater

Dependent upon the scale of a repurposing project, a local authority may introduce restrictions on rainwater and surface water run off rates. Methods for controlling flows from existing assets are limited. The design team should establish acceptable discharge rates at the earliest opportunity as part of the benchmark setting exercise. Extensive attenuation and storage solutions should be resisted as much as possible with liaisons with the local authority flood officers commencing as soon as possible.

Utility infrastructure

Utility infrastructure demands will vary depending upon the nature of the repurposing project and as such the suitability of the incoming services arrangements should be tested at the earliest opportunity.

Do not assume that existing arrangements for utility assets will be suitable for retention as the arrangement of existing utility services within an existing asset may no longer meet current policies or standards and they may be party to serving adjacent/neighbouring buildings.

It should be ensured that any increases in ground floor or basement footprints do not impact existing utility infrastructure in or around the demise and any requirement for diversions should be established at the earliest opportunity. Utility arrangements should also be inspected to see that they are not party to serving adjacent/neighbouring buildings, for example, electrical substations or water intake manifolds. Leases may be attached to larger utility provisions serving on and off-site loads.



Legal searches

It is worth noting that whilst utility searches should identify where infrastructure has been installed, a separate legal search may be required to identify legally binding wayleaves/easement agreements associated with utility infrastructures. The proliferation of mobile phone operator's equipment attached to private buildings can be a particular impairment to repurposing an asset, with the telecoms regulator presenting quite stringent rules around the termination of telecommunications leases.

Vertical Transportation

Converting multi-level assets into multiple other uses and tenures or smaller retail footprints can give rise to greater vertical transportation intensities. Refer to Revo guidance note GN74 : Lifts in the Retail Environment.

Opportunity to conjoin vertical transportation strategies presents a significant benefit, structural and operationally. Common service delivery provisions can assist in reducing the vertical impact of introducing goods lifts and the like.

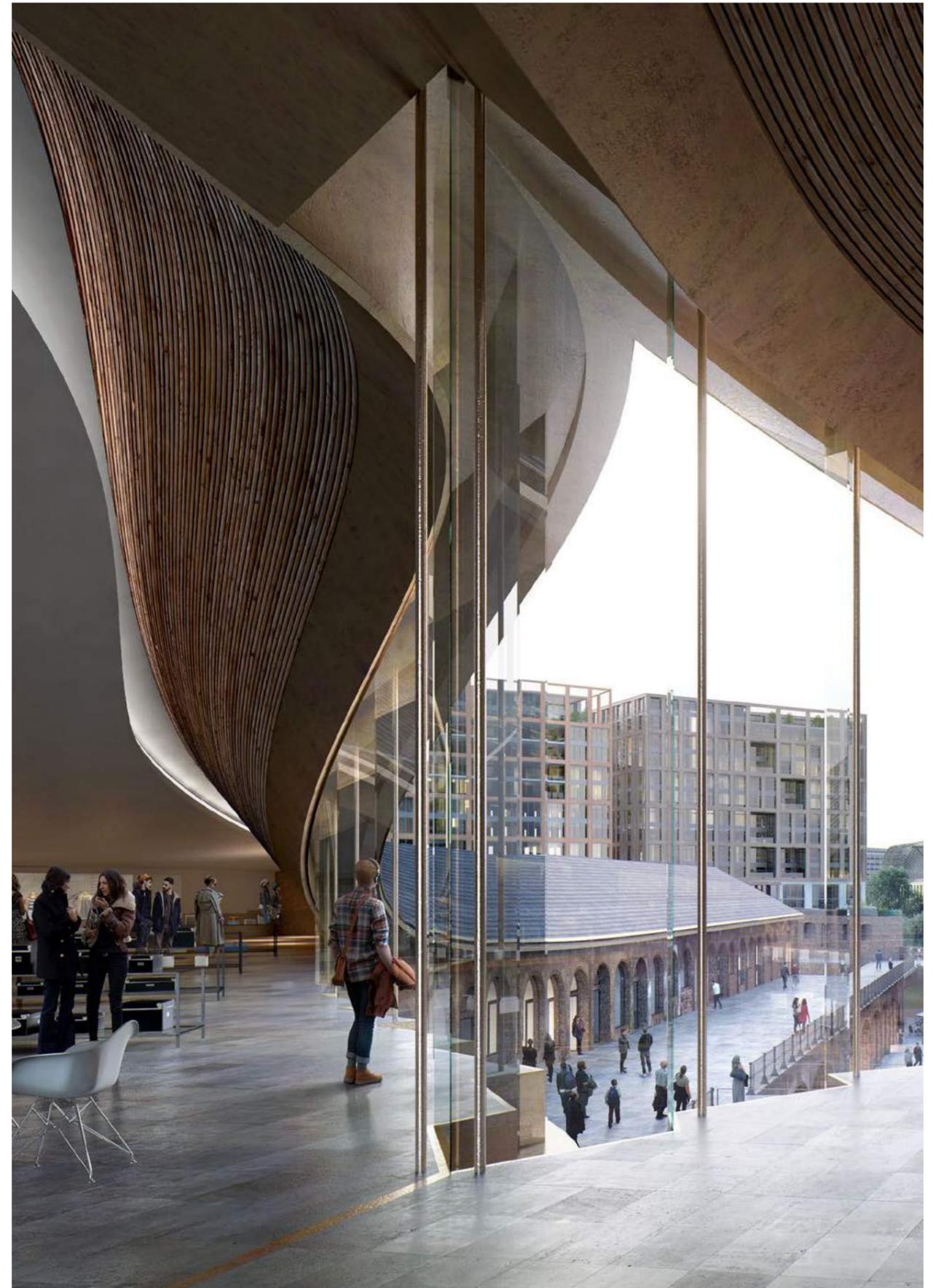
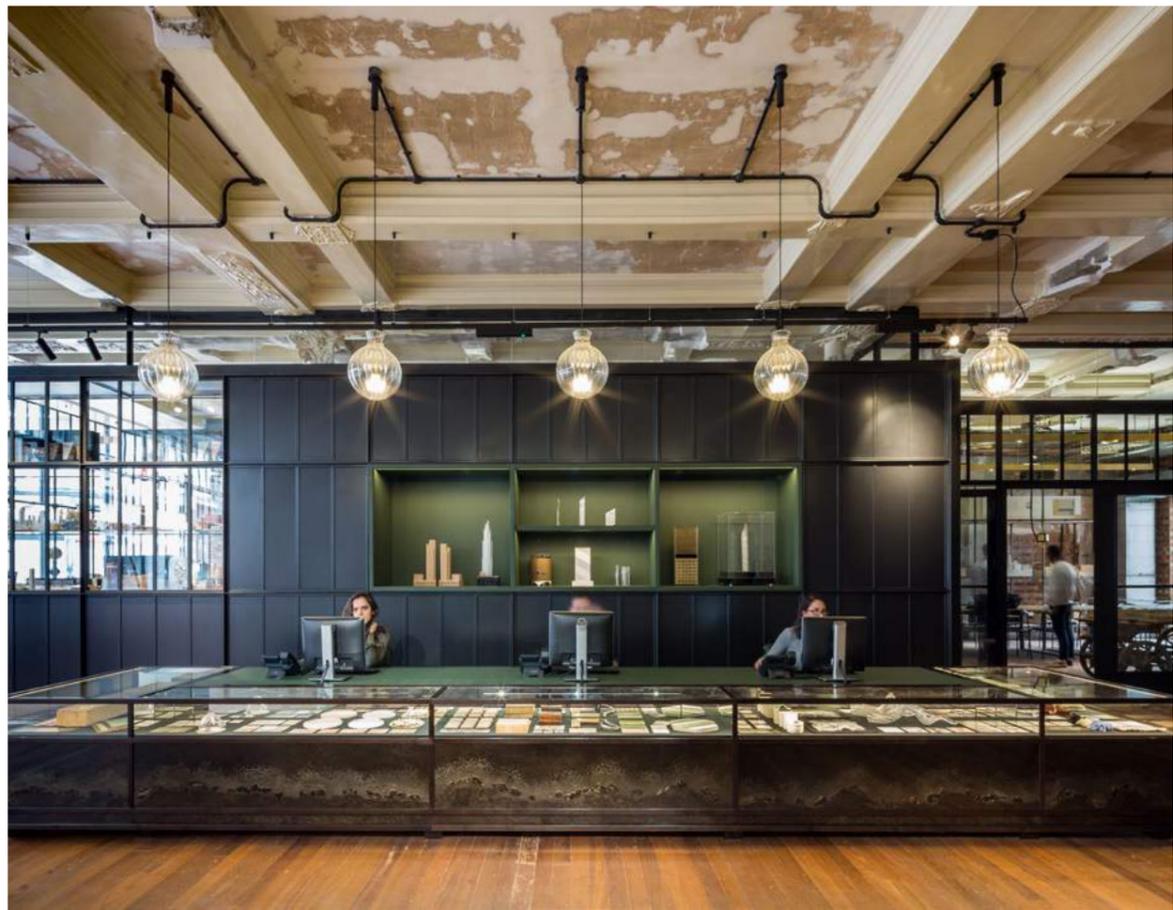
Structural coordination of ground slab and above ground slab penetrations should be carefully considered. The impact of escalator and lift pits upon headroom and structure will need to be reviewed by a specialist team.

Structural

The implications for change and adapting the existing structure is an overall economic evaluation exercise of programme, buildability and relevance to the proposed use. For all adaptation and alteration works the primary consideration structurally is the aim to balance the existing load capacities against the proposals so that any structural strengthening or enhancement works are kept to a minimum. It is not just the vertical loads and foundation capacities that need evaluating but also the horizontal loadings and any impact on the stability elements.

The servicing strategy for the building will need to be considered particularly where a large unit is being subdivided and individual units will require separate service bays and access to service lifts etc. some tenants require dedicated service access which may require new lift provisions. Another key issue is the state of the flooring or more particularly the existing screed and if it will be capable of taking a new floor finish without being removed and if in doubt its worth considering getting a floor expert in to test the state of the screed or tiling to see if they can be overlaid or have to be replaced. Screeds can often be remediated and cracks repaired, which will likely be much cheaper than a wholesale replacement of the screed. Another factor that should not be overlooked is that when combining different units into a larger space the two screeds maybe at differing levels even if the structural slab is at the same level.

The Department Store, Brixton by Squire and Partners. Top: exterior, Bottom: reception area
Photography: © James Jones



Coal Drop Yard, Kings Cross by Hoare Lea



Illustrative example

By way of example, the following notes illustrate the key considerations required around the repurposing of a single, multi-storey asset. The example references the repurposing of a single occupancy multi-storey department store to accommodate a hotel, some co-working and multiple retail at street level.

Single Occupation (Vacant Department Store)

Multiple Occupation (Repurposed Asset)

Considerations

Architectural:

Single use for planning purposes.
No common areas, fully tenanted building

Planning permission change of uses required.
Shared occupancy requires separate servicing strategy.
Elevational changes required including signage.
Increased core provision
Shared Plant location strategy
Separate entrance provision
Level differences, Existing finishes
Impact of previous alterations

Façade

Single performance criteria

Introduction of façade air paths
Façade performance upgrades for use type changes (acoustic, thermal, solar)
Elevational changes to meet daylight considerations and subdivision into hotel bedrooms

Structural

Single tenants brief and flexibility requirements to work to

Varying clear height requirements creating non-optimum solutions.
Varying tenants' requirements for imposed and super dead requirements.
Introduction of new riser and servicing requirements across the floor plate.
Infilling of large voids/atriums

Fire

Single fire strategy for the whole building

Multiple occupancy will require new approach and may require common escape routes and fire engineered solution.

Engineering Services

Unitary plant strategy
Single, common installations to a common tenure
Beneficial efficiencies in plant space area
Minimal vertical connectivity/risers

Multiple tenants plant accommodation at roof level
Higher intensity/density of plant to include catering and leisure uses
Multiple vertical risers
Cross contamination of air paths
Third party installer access
Increased drainage intensities
Increased quantity of service and transfer zones
Significant increase in vertical drainage to accommodate hotel
Acoustic considerations with night time occupancy

Vertical Transportation

Single passenger strategy, including escalators
Single goods strategy

Requirements for independent vertical transportation
Multiple passenger and goods transportation
Additional cores requiring consideration around motor rooms, pits, vibration and noise

Phil Grew, Hoare Lea, Julian Monaghan, DLG Architects and Karen Telling, Waterman Group have prepared this insight paper on behalf of the Revo Technical Affairs Committee.

Guidance notes prepared and issued by Revo are intended as aide memoires to good practice in the design, construction and management of shopping places. They do not replace the need for specific and individual research.

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