

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

VOLUME III APPENDICES

Appendix 5-1 MCA Analysis



Cleeves Riverside Quarter

Multi-Criteria Analysis of Options

November 2021

1. Background

Limerick Twenty Thirty is developing proposals for the regeneration of the Cleeves factory site in central Limerick. To this end an architect-led integrated design team (AIDT) has developed five high-level masterplan options which involve different degrees of residential, commercial and alternative or mixed-use forms of development within the site.

To comply with the Public Spending Code, a Preliminary Business Case for the project is being prepared for submission to the Department of Housing, Local Government and Heritage. Amongst its functions is to determine a single preferred option for progression into more detailed design, planning and feasibility work.

In combination with detailed financial and economic appraisal, the principal method for determining the preferred option is a multi-criteria analysis (MCA), and to this end an expert panel was convened by Limerick Twenty Thirty in October/November 2021 to conduct the scoring of options within an appropriate multi-criteria framework¹.

2. Process and Results

The MCA framework identifies 9 performance criteria for the development options, as follows:

1. heritage fabric;
2. uses mix;
3. connected public realm;
4. character area open spaces;
5. innovative & sustainable;
6. density;
7. maximum use of existing buildings;
8. residential amenity; and
9. commercial viability.

A further 23 sub-criteria are identified below this level.

To inform the scoring, the expert panel were provided with background reports prepared by the AIDT on both the options and also in respect of each criterion.

¹ Membership of the panel is shown in Annex 1.

The panel were asked to score each option on a scale of 0-10, under each sub-criteria included in the MCA (with 10 to denote the highest quality/performance), and to record the rationale for the scoring provided.

The scoring took place at a meeting of the panel hosted by Limerick Twenty Thirty on November 16th, 2021.

The results are shown in the following table.

Criteria	Sub-Criteria		Option Scores (1-10)					Scoring Rationale
			Option 2A	Option 2B	Option 2 C	Option 3	Option 4	
HERITAGE FABRIC	1.1	Optimises the re-use and integration of the Industrial Heritage fabric, reinforcing the unique identity of the site	7	9	6	7	6	All of the options re-use and integrate the majority of the historic industrial buildings of heritage significance, including the primary Flaxmill building, the Chimney and Water Tank building, the Engine House and the Pump House buildings, as well as the reservoir (all of which are considered of high heritage significance). Option 2B is scored highest, as under that option the less significant structures which adjoin the Engine House are removed, opening up enhanced views and use of the more significant core structure behind it, also facilitating more unimpeded views of the historic chimney. Among the other options, 2C is deemed relatively inferior as a new building is developed over the pump house reducing its impact as a historic building, while Option 4 is also deemed relatively inferior, as it does not integrate the historic walls to the Cheese Plant/Dairy Store building.
	1.2	Optimises views of the protected Flaxmill and chimney	7	7	6	8	5	Options 3 and 4 involve the least dense development around the historic structures, allowing the best unimpeded views of the Flaxmill and Chimney. Option 3 scores highest for this reason, however under Option 4 the historic boundary wall to the site is retained, which would significantly impede ground level views. Option 2A, 2B, and 2C each result in similar views from Condell Road and Bishop's Quay, however the more dense buildings developed on the Shipyard site under Option 2C detract marginally more than the developments at that part of the site under Options 2A and 2B.
USES MIX	2.1	Offers diverse mix of uses promoting mutual synergies and social cohesion	8	8	7	5	4	All options incorporate residential, office/commercial and cultural/mixed use functions and spaces, albeit to different degrees and with different levels of cohesion. Options 2A, 2B, and 2C each combine these uses with a variety of engaging cultural, community, water-based, small retail, and creative workspaces, functions and uses, each serving and adjoining the public realm. Under Option 2C somewhat fewer of the

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								spaces within core areas at the public realm serve public, social, community and cultural functions. Option 3 is deemed inferior as it provides for much less commercial/office uses, while under Option 4 the industrial/Distillery function of the Flaxmill detracts from the ability of the main central plaza to be the meeting point and interface for numerous mixed and vibrant uses.
	2.2	Offers a mix of residential typologies to support a diverse community	8	8	7	6	5	All options provide for townhouse, duplex and apartment residential forms on the site. Under Options 2A and 2B each is of a significant scale within the overall residential mix, and clearly defined within that mix. Under Option 2C this balance is marginally weaker, as the number of duplexes in the Stonetown Terrace/Upper Reservoir area is fewer in favour of an additional apartment building. Under Option 3 there is less interfacing of different residential forms around the reservoir area, and under Option 4, even less such again, while neither of Option 3 or 4 provide residential uses towards the river front.
	2.3	Offers diverse mix of workspace typologies, facilitating flexible tenancies	7	7	7	2	3	Options 2A, 2B, and 2C each provide commercial/office buildings which provide a mix of floorplates of different sizes and scope for single or multiple large or small commercial tenants. Commercial spaces on the Shipyard site under Option 4 only provide small floorplates, albeit of a scale which offers some adaptability, however this is less so under Option 3 given the single, small and uniform commercial block provided.

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	2.4	Offers diverse range of venues and offerings to attract short-term visitors and public users, contributing to cultural life of city	9	8	7	5	4	The Flaxmill and chimney, and their adjoining historic buildings which together open onto the public realm, provide the focal point for attractive public amenities and spaces at the centre of the entire site. Their capacities to offer a mix of attractive and diverse venues and spaces for public, civic and cultural uses depend on their core functions and the proposals for their linking and adjoining structures, and how these may relate to the open square and public realm. At the centre of this cluster is the engine house, which sits between the Flaxmill and chimney. Option 2A would see its potential re-use as a c. 260 seat theatre/cultural venue, with a new adjoining cafe/kitchen opening to the public plaza. This provides a vibrant central cultural and public space with a rich mix of indoor and outdoor amenities at the heart of the historic site. Option 2B has a smaller single structure adjoining the engine house and linking it to the Flaxmill, while Option 2C has smaller adjoining spaces, limiting the scope for a variety of cultural and public functions within the Flaxmill. Under Options 3 and 4 the mix and variety of cultural and public functions possible is constrained by the dominance of community and industrial (distillery) functions within the Flaxmill, with the Distillery more severely undermining the scope for wide-ranging cultural venues and attractions within the public realm.
CONNECTED PUBLIC REALM	3.1	Provides connections with the local and city context accessible to users of all ages and abilities, prioritizing pedestrian & cycle connectivity	8	8	8	8	4	All of the options provide similar levels of connectivity between the site and the wider city via the Condell Road, the North Circular Road, O'Callaghan Strand and Stonetown Terrace, with strong emphasis on pedestrian and cycling mobility. Option 4 scores significantly lower than all other options as its retention of the historic site wall fronting to the river would constrain pedestrian and cycling connectivity from the central square.

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	3.2	Optimises the quantum, mix and flexibility of day and nighttime open and sheltered spaces to support a vibrant public realm throughout the year	6	4	7	5	2	With the exception of Option 4, all options provide for energy collecting canopies over public mobility spaces, routes and hubs, as well as sheltered pedestrian routes. Options 2A, 2B, and 2C also provide sheltered community space. Scores reflect how extensive the network of such sheltered routes and spaces offered under each option.
	3.3	Optimises permeability within the new Riverside Quarter to enhance the sense of cohesion and legibility	4	3	6	5	1	All options provide numerous routes and access points for internal permeability, including across the Shipyard, central square, Salesians, and Stonetown Terrace zones, although none have high quality cycling or vehicular permeability fronting toe the river. With the retention of the historic site boundary wall, Option 4 disallows a pedestrian permeability route from the main square to the river front. Option 2C provides the most extensive network and extends beyond those of other options particularly with cycling routes across the Shipyard zone, as well as to the river front. Option 3 and 2A provide public stairs/lift adjacent to St Michael's rowing club, offering a further mobility route to those provided under Option 2B.
	3.4	Provides required quantum of car parking without becoming car dominated	7	6	8	7	6	The options are ranked on a scale of 0-10 for both residential car park spaces per residential unit, and non residential GIA per non-residential car park space, with 10 allocated to the option with the lowest level of car parking in each category and other options scored proportionately thereafter. The MCA scores represent the average of both the residential and non-residential score achieved under each option.

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CHARACTER AREA OPEN SPACES	4.1	Offers active urban spaces, 'spaces in between' with activated edges	9	9	7	6	2	Options 2A and 2B each provide the greatest quantity of public space between character areas as well as the most scope for its activation as mixed forms of public amenities (cultural, creative, community, functions within or at plazas, forecourts, seasonal venues, the river edge, etc.). Option 2C encloses the civic plaza slightly more so, limiting such options marginally more, while Option 3 offers less activation of the reservoir edge and quarry area. The civic plaza area is far more limited in scale and scope under Option 4.
	4.2	Optimises views within and from the site eg. of the River Shannon to the east and wetlands to the west	9	9	7	8	3	All of the options provide ground level views from the central plaza across and up the river, however the retention of the boundary wall impairs this significantly under Option 4. Views to the south-west towards the wetlands are least impaired under Options 2A, 2B and 3, but slightly more so under Option 2C given the form of the shipyard buildings.
INNOVATIVE & SUSTAINABLE	5.1	Optimizes bio-diversity linkages and blue-green infrastructure	8	8	9	8	8	All options provide blue infrastructure and interfaces both at the river front and at the reservoir. Scores reflect this along with the scale of green roof areas generated capable of supporting vegetation and biodiversity. No assessment has been made of the impact of options on the SAC.

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	5.2	Optimizes flood-responsive design solutions	3	4	2	1	1	A Preliminary Flood Risk Assessment has been completed with flood zones identified within the development boundary. Further detailed flood risk analysis will be completed once the Preferred Option is identified and the designs are developed. Scores reflect the likely positive impacts of raising the level of the North Circular Road, as well as potential risks arising from displacement effects across the options.
	5.3	Optimizes massing strategy with consideration for daylight provision and minimizing of overshadowing	7	7	6	8	8	Scores reflect the lower height of buildings under Options 3 and 4 and their lower level of overshadowing. Options 2A and 2B present marginally increased overshadowing over the central plaza reflecting the form and orientation of buildings on its boundary with the North Circular Road.
	5.4	Offers incremental phasing strategy	7	7	8	7	7	All options lend themselves to strategic phasing across both zones and functions. Option 2C is deemed marginally superior as there is more scope for varied phasing within the development of commercial space within the shipyard zone.
DENSITY	6.1	Achieves maximum residential density in support of NPF objective of compact growth within cities	8	9	10	6	5	Scores reflect how options compare with respect to the total number of residential units developed on the site with the option developing most units scored 10.

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	6.2	Achieves maximum commercial density in support of NPF objective of compact growth within cities	7	10	8	1	3	Scores reflect how options compare with respect to the total commercial floorspace generated on the site with the option developing most scored 10.
MAXIMUM USE OF EXISTING BUILDINGS	7.1	Maximises the use and re-use of existing buildings and structures	9	8	9	8	10	Scores reflect how options compare with respect to the total space within existing buildings retained, with the option retaining the highest amount of space scoring 10.
RESIDENTIAL AMENITY	8.1	Provides optimum scope for high quality residential amenities including private and public open space, natural landscapes, sport and recreation space, childplay space, space for community congregation, privacy and separation, ease of access, etc.	8	7	6	5	5	Option 2A is deemed to have the best-configured residential amenity space with the inclusion of an L-shaped block overlooking the reservoir, providing an enclosed public and residents' park area combined with passive/natural surveillance over the public domain. Options 2B and 2C also offer comparably strong residential amenity within the Salesians zone, although without this feature. Options 3 and 4 provide smaller courtyards within the main residential buildings on the Salesians site.

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COMMERCIAL VIABILITY	9.1	Provides clear phased deliverability to align with expected absorption rates in Limerick City for Commercial Office space.	6	5	4	2	3	Options are scored in relation to the extent of commercial development and its scope for strategic phased delivery within each option.
	9.2	Provides clear phased deliverability to align with expected absorption rates in Limerick City for residential developments.	6	6	6	6	6	All options are deemed to have the same scope for phasing within the residential facilities and zones.
	9.3	Provides a commercial return on investment	9	10	8	2	6	Options are scored on a scale ranking the commercial space in proportion to the total developed floorspace, as commercial facilities are likely to be the most viable form of development.

Annex 1: Membership of Expert Panel

- Sean O’Laoire, Director, MOLA Architecture
- David Browne, Director, RKD
- Maria Woods, Senior Planner, Limerick City and County Council
- Aidan Gavin, Country Leader Ireland, Cushman and Wakefield
- Tom Phillips, Managing Director, Tom Phillips & Associates