

DCC Climate Action Plan Energy and Buildings Actions

Presentation to the Environment SPC
Ali Grehan Dublin City Architect 29th January 2020

CITY ARCHITECT DIVISION ACTIONS

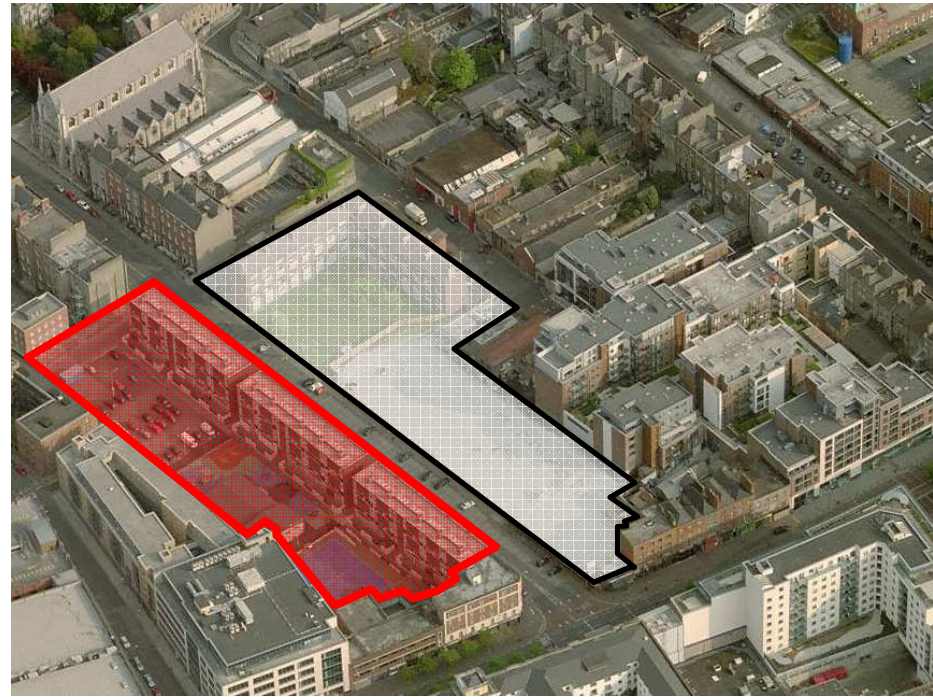
Summary update of City Architect actions in current CAP

NO	Action	Time Frame	Q4 2019 UPDATE
E17	Install PV panels on Dominick St, North King St, and Cornamona Ct	2019 onwards	Being installed at Teresa's Gardens (2020), O'Devaney Gardens (2021), Dominick St. (2021, Cornamona Ct (2021), and North King St. (2021)
E29	Flat complex regeneration programme	2022 onwards	10 complexes at Design Stage: St. Finbarr Court: Part 8 July 2020; Glin Court, Dorset Street, Emmet Road - DT appointment underway; St. Andrew's Court & Grand Canal Basin - DT competition underway; Constitution Hill, Matt Talbot Ct and Dunne St, Lissadel Rd DT tender pending. 18 complexes at Feasibility Stage: 7 complete Q1 2020 11 complete Q2 2020
E32	Irish Green Building Council (IGBC) BUILDUPON2 research on deep renovation strategies towards 2050. H2020 programme.	June 2019 to June 2021	BuildUpon2: DCC attended meetings June and December 2019. Project runs until February 2021. Also participating in 'TurnkeyRetrofit' with IGBC. Separately assisting TUD in 'DriveZero' about prefab house extensions.
E33	RIAI's Sustainability Task Force	Ongoing	City Architects currently chairing
E35	Research into Lifecycle Assessment of Traditional and New Construction Methods for Residential Projects	2020 onwards	TCD carbon study complete. Will inform City Architect specification. Sustainability Consultants and Architects appointed to complete Carbon Audit of development options for Dominick Street West. Feasibility Report to be completed end March 2020.
E36	Install Swift Bricks or similar	2020 onwards	Included in specification
E37	Develop maintenance and condition survey programmes for DCC historic monuments informed by climate change impacts.	2020	With Planning Department
E38	Develop case studies on retro-fitting/energy upgrading of traditional buildings to inform works to DCC & private properties.	Ongoing	With Planning Department

KEY PROGRAMMES



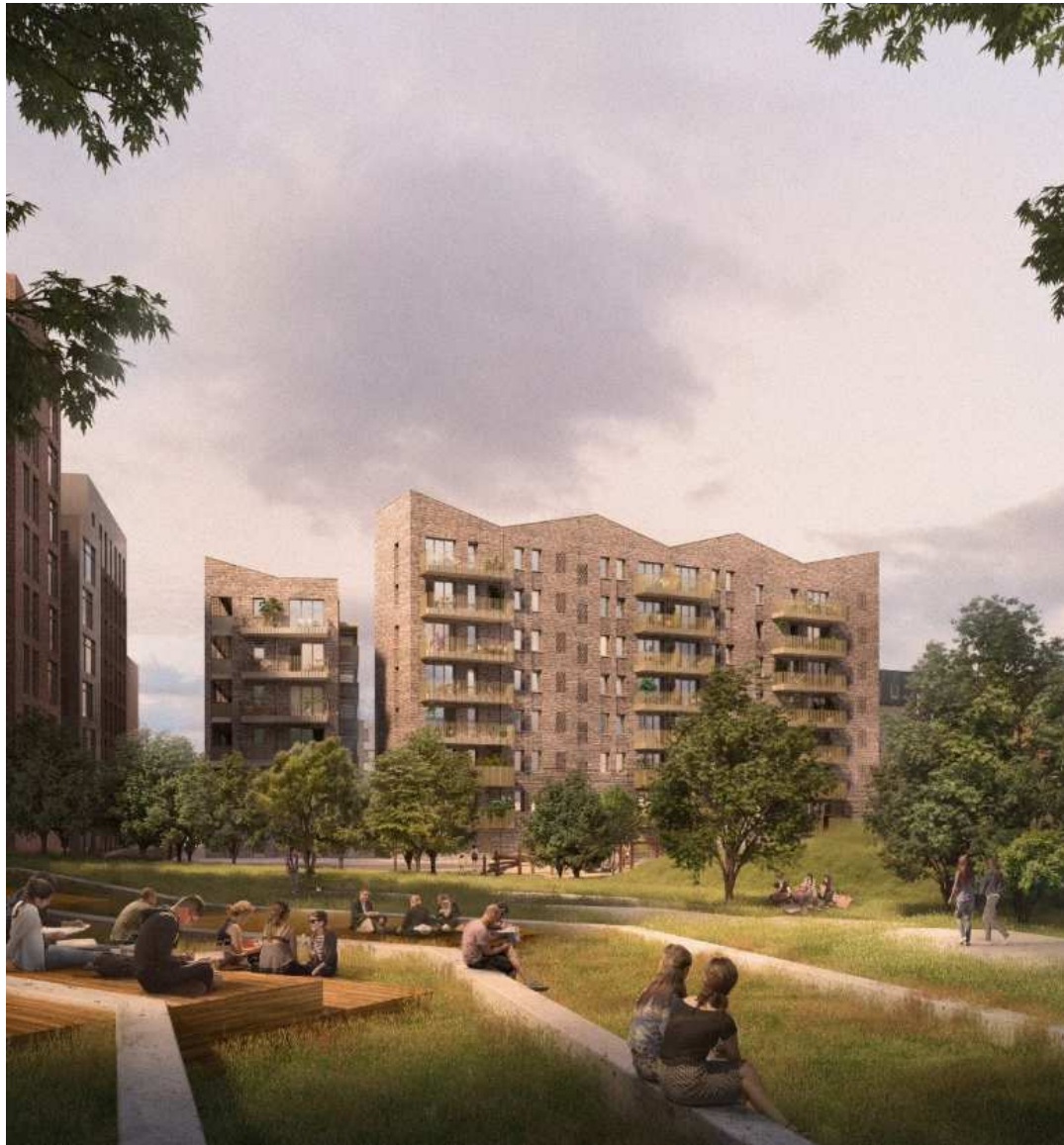
Dominick St East, D1 (above). Site under construction. Dominick St Aerial (top right). LCA study site in red, Dominick St site under construction in white



Dominick St. D1 Pilot Life Cycle Assessment (LCA) Study

Feasibility study examining development options (demolition & new build, retrofit & new build) complete March 2020.

Analysis to include: Existing typical block; Retrofit of existing block; LCA of Dominick St. East; Timber frame alternative to Dominick St. East.



Bonham Street, D8 57 homes (above). Maxwell Road, D6 9 homes (top right)



Home Performance Index (HPI)

Holistic certification process for new build residential developments managed by IGBC

Pilot HPI: Maxwell Road, D6, 2016
first to be certified in Ireland.

@2800 homes across 28 projects on current HPI schedule. Half of these at design or construction stage.



Dolphin House Phase 1. Elevation to Grand Canal and view of internal courtyard (above). Masterplan sketch of proposed (top right)

Dolphin House D8

700-800 homes overall. Phase 1 100 homes complete 2018. Phase 1b 30 homes at Part 8. Masterplan for remaining phases to go to ABP 2020.

Phase 1 mixture of deep retrofit of 3 existing blocks (63 homes) to A3 energy standard and 37 new build homes to A2 standard

Phase 1 won overall KPMG Property Industry Excellence Awards 2019 and 'Best Community' project. Also won Irish Building and Design Awards 2019 best 'Social Housing Project'



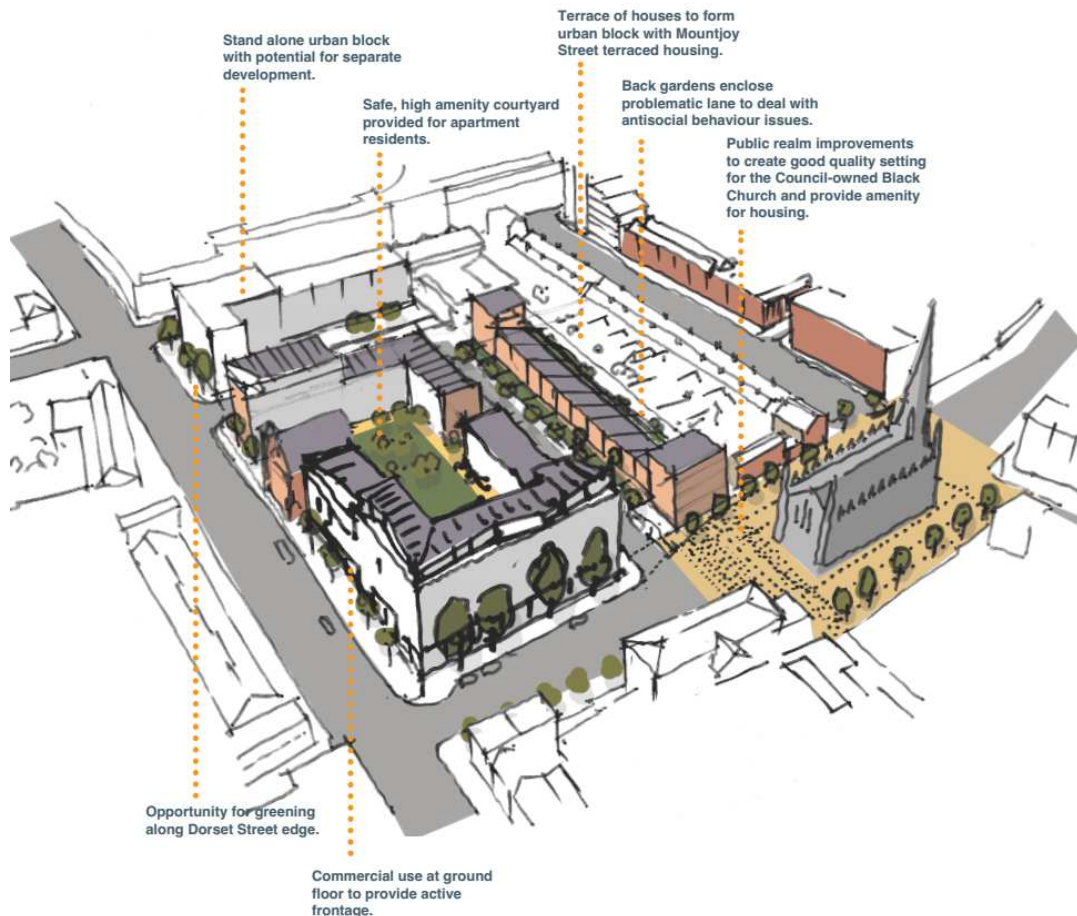
St Bricins D7, Block 2

Part of DCC's bedsit amalgamation programme, 140 homes back into use.

Block 2 11 homes. Complete May 2019. Part funded by the SEAI. Achieves exceptional A3 energy standard and 'Enerphit Certification' through very high construction standards and use of a heat pump for the provision of heating, ventilation and hot water in one integrated system.

Project won the 'Retrofitting and Renovation Project of the Year' award at Irish Building and Design Awards 2019.





Dorset St D1. 137 homes (existing) 158 homes (proposed).
Demolition and new build. Design team appointed January 2020.



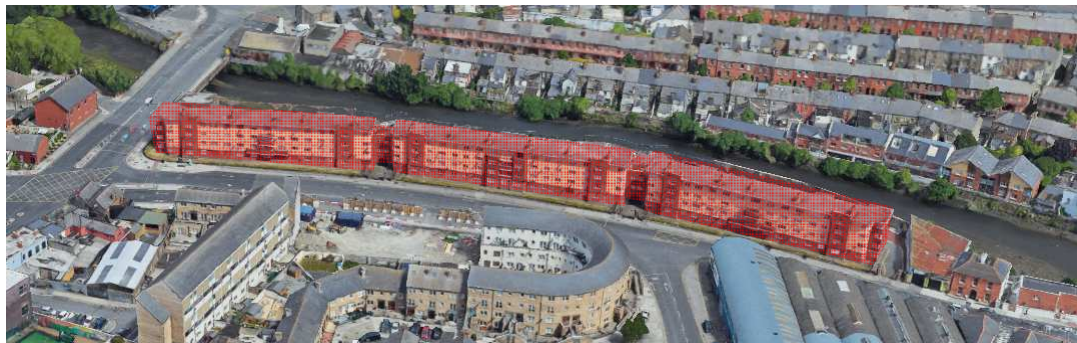
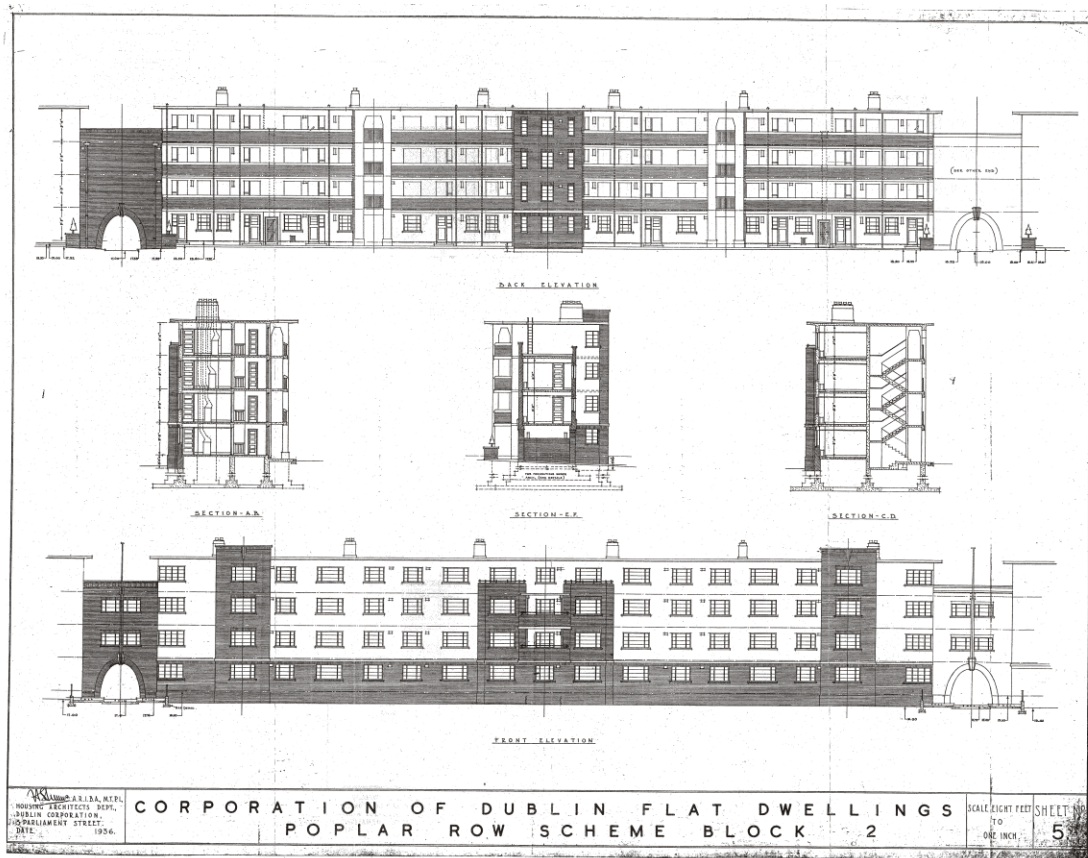
Flat Complex Renewal

6,000 of 10,000 flats are over 40 years old and in need of renewal.
Existing BER ratings E - G

Initial programme of 10 estates (1300 homes) in preparation. Mix of deep retrofit or demolition & new build.

In both cases, apartments will meet 2050 Zero Carbon (operational) standards.

Feasibility studies underway for 18 estates.



Deep Retrofitting Protected Structures: Ballybough House Pilot

@1000 homes in complexes which are Protected Structure (PS) or are of historic interest.

Ballybough House PS built in 1938. 111 homes. Considered one of H.G. Simms' successful large scale urban developments.

Pilot: Amalgamation 2 flats into 1 and deep retrofit as precedent for improving accommodation while respecting fabric and recognising embodied carbon.

Works will include: Internal walls insulated with cork-based lime plaster. PVC glazing replaced with historically appropriate aluminium glazing. Heat pump will replace the gas boiler. Achieve B1 BER.

THANK YOU AND Q+A