An aerial photograph of a suburban residential development. The houses are arranged in neat, curved rows around a central green space. In the center, there is a large building, likely a school, surrounded by a parking lot and some trees. The overall layout is typical of a planned suburban neighborhood.

**Promoting physical
inactivity and car
dependence:
the case of Waterford
city's suburbs**

Dr. Elaine Mullan, WIT

Level of physical activity

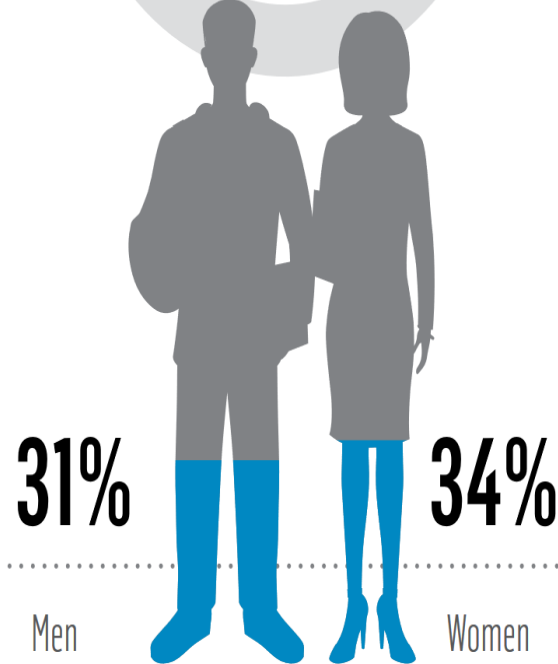
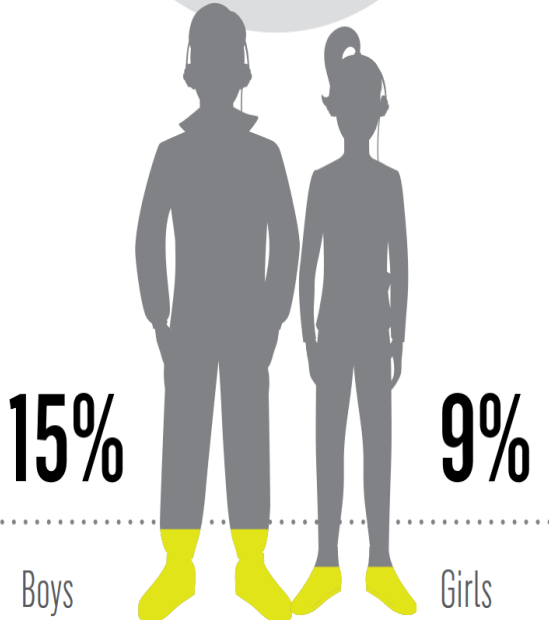
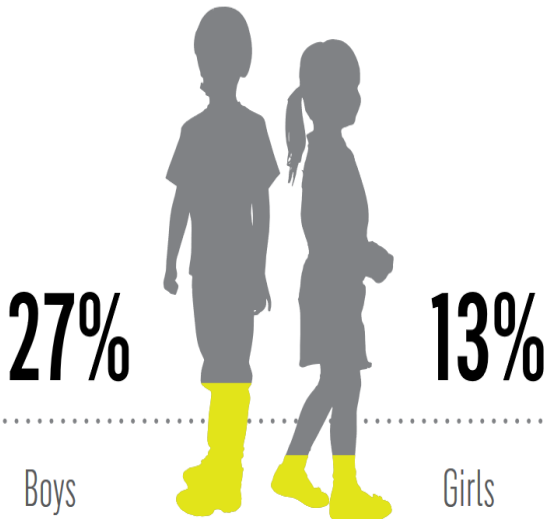
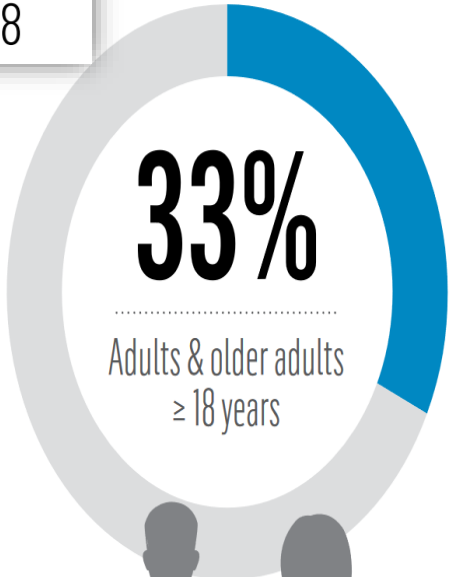
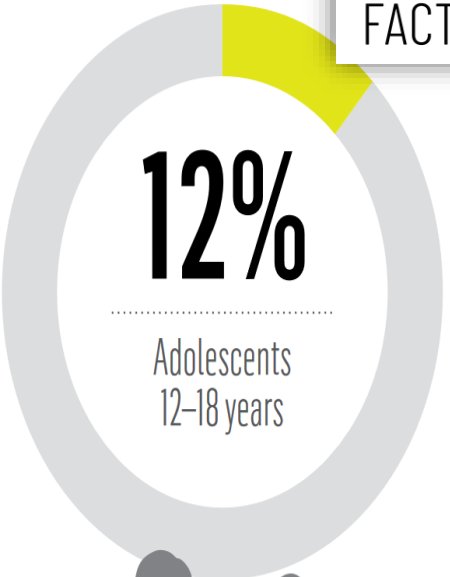
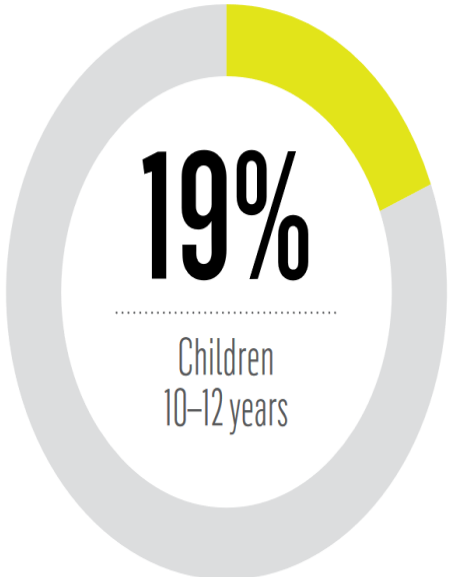
ESTIMATED PREVALENCE OF SUFFICIENT PHYSICAL ACTIVITY LEVELS



IRELAND

PHYSICAL ACTIVITY

FACTSHEET 2018



National Travel Survey 2016

How far did we travel?



26% of journeys were less than 2km

43% of journeys were 8km or more

Where did we go?



29% to work



22% went shopping

Who drives more?



Dublin



All excluding Dublin



Average Journey



Distance



Duration



Speed

How did we travel?



74%



15%



11%

When did we travel?



22% between 1pm & 4pm



24% between 4pm & 7pm



An Phríomh-Oifig Staidrimh
Central Statistics Office

OBJECTIVE 2:

CREATE ACTIVE ENVIRONMENTS

Five policy actions address the need to create supportive environments and places that promote and safeguard the rights of all people, of all ages and abilities, to have equitable access to safe places and spaces in their cities and communities in which they can engage in regular physical activity.



Design Manual for Urban Roads and Streets

“Road/street
design in Ireland
has not
prioritised the
needs of cyclists
and pedestrians &
the needs of
vehicles have
been over-
prioritised”

40yrs of
‘carchitecture’

Published 2013!!

Why is DMURS Needed?



Conventional approach

- Prioritisation of vehicle movement
- Minimise vehicle delays
- Overly large, complex junctions
- Under provision of pedestrian & cycling facilities



Why is DMURS Needed?



- Visual clutter
- Traffic dominance
- Unwelcoming environment
- Excessive barriers

People's needs are secondary



Broad Street, Waterford, 1990

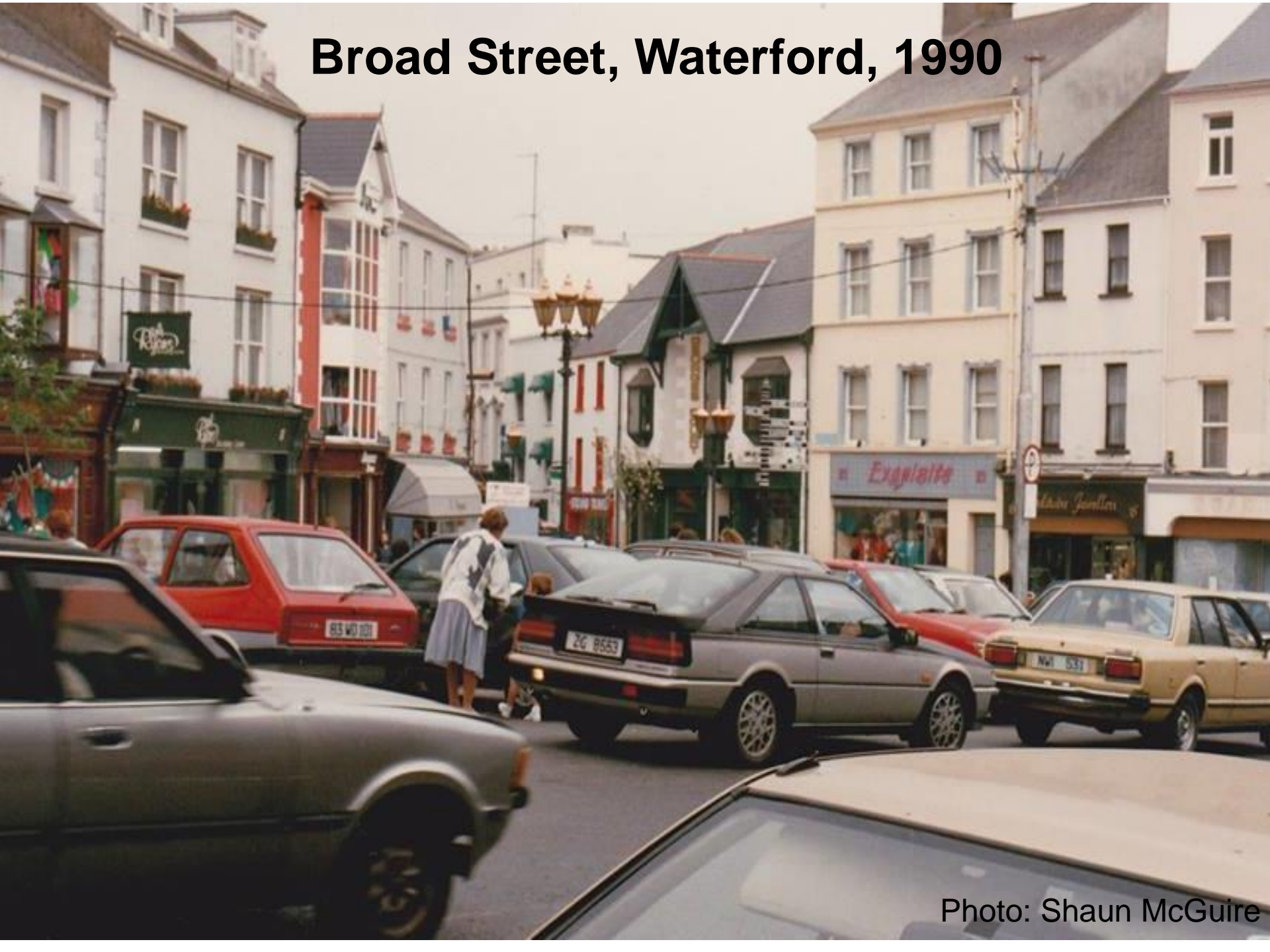


Photo: Shaun McGuire

Barronstrand Street, Waterford, 1990's

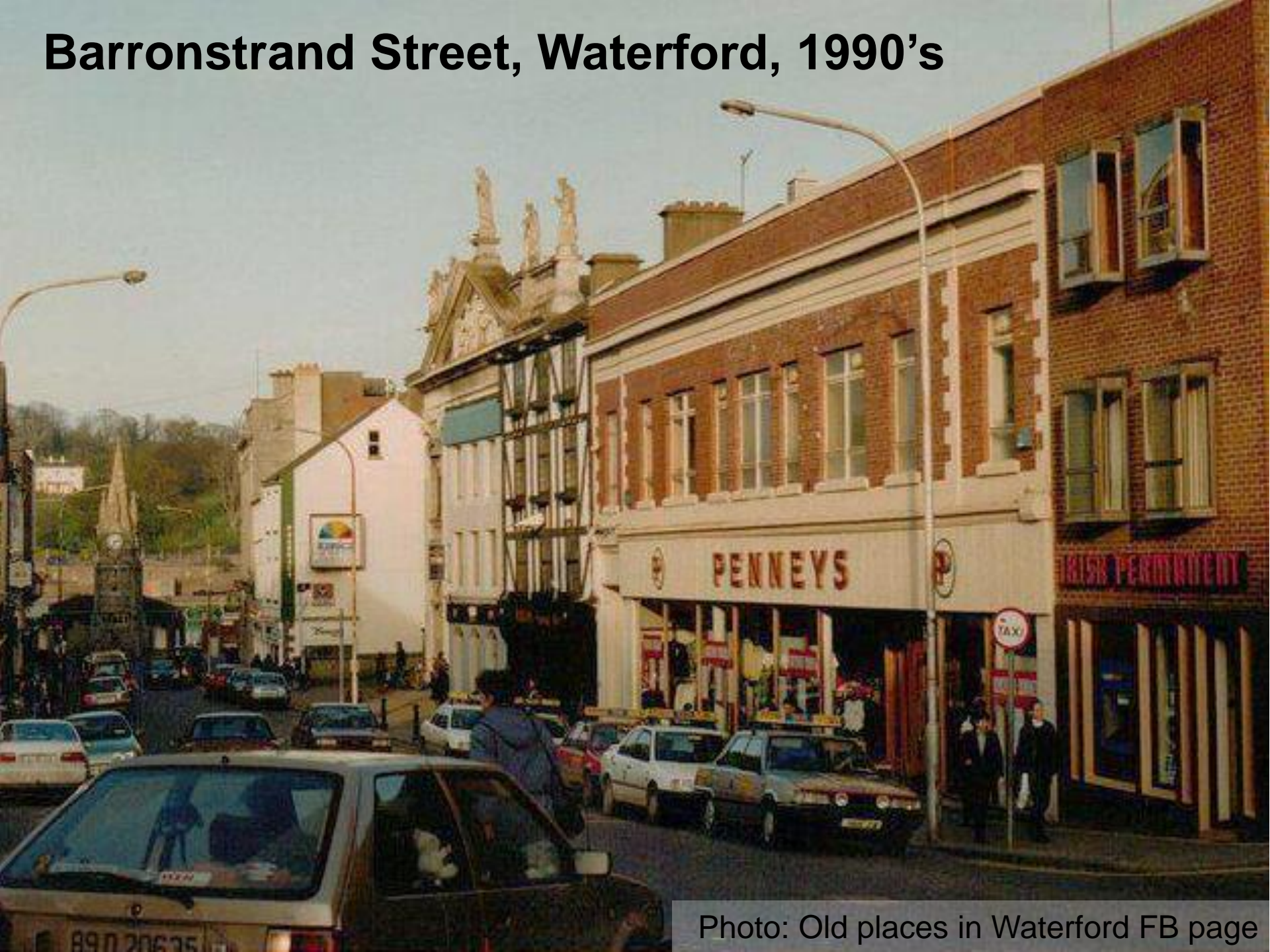


Photo: Old places in Waterford FB page

Broad St. (John Robert Sq.) 2017

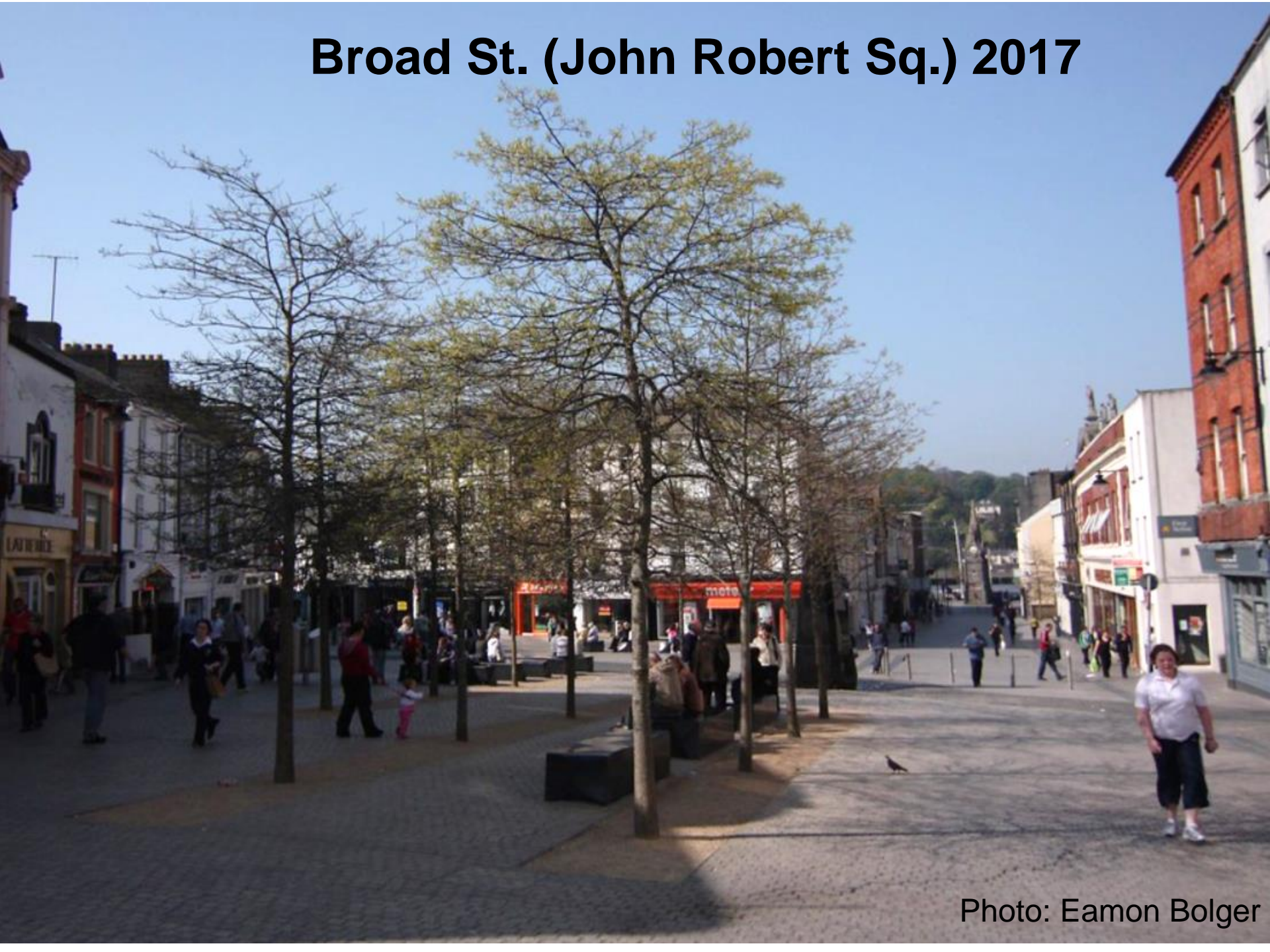


Photo: Eamon Bolger



Barronstand St., 2019

Broad Street, Waterford.

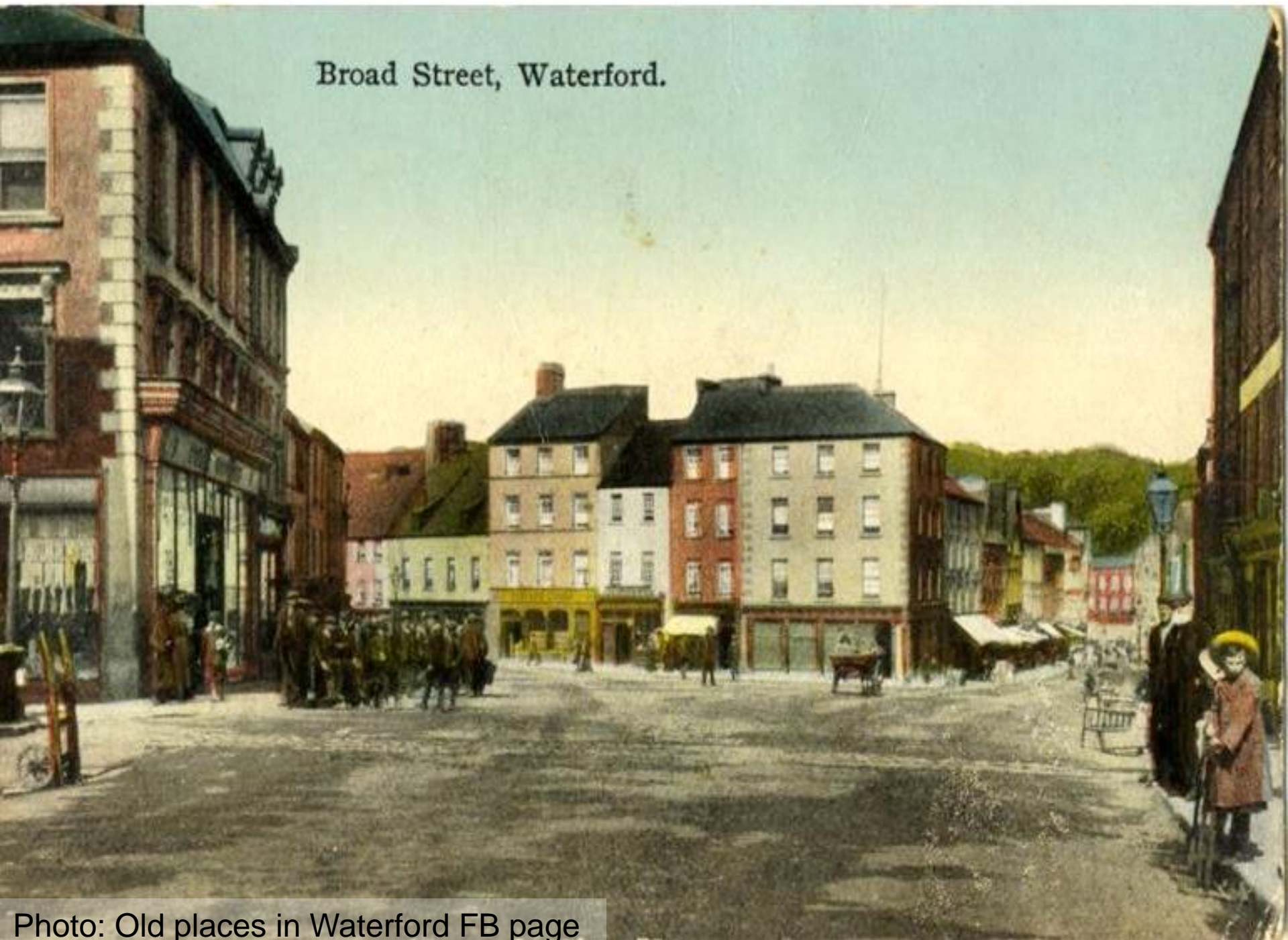


Photo: Old places in Waterford FB page

Barronstrand Street



Photo: Old places in Waterford





The suburbs:
a DMURS-
free zone!

Why is DMURS Needed?

Car dependence is now built-in to **SUB**urban areas as the norm

- Children being driven short distances
- Elderly people losing travel independence
- People driving unnecessarily
- People driving to walk/run/cycle
- Lack of street play



Cellbridge: **1.8 km** Vs **0.16km**



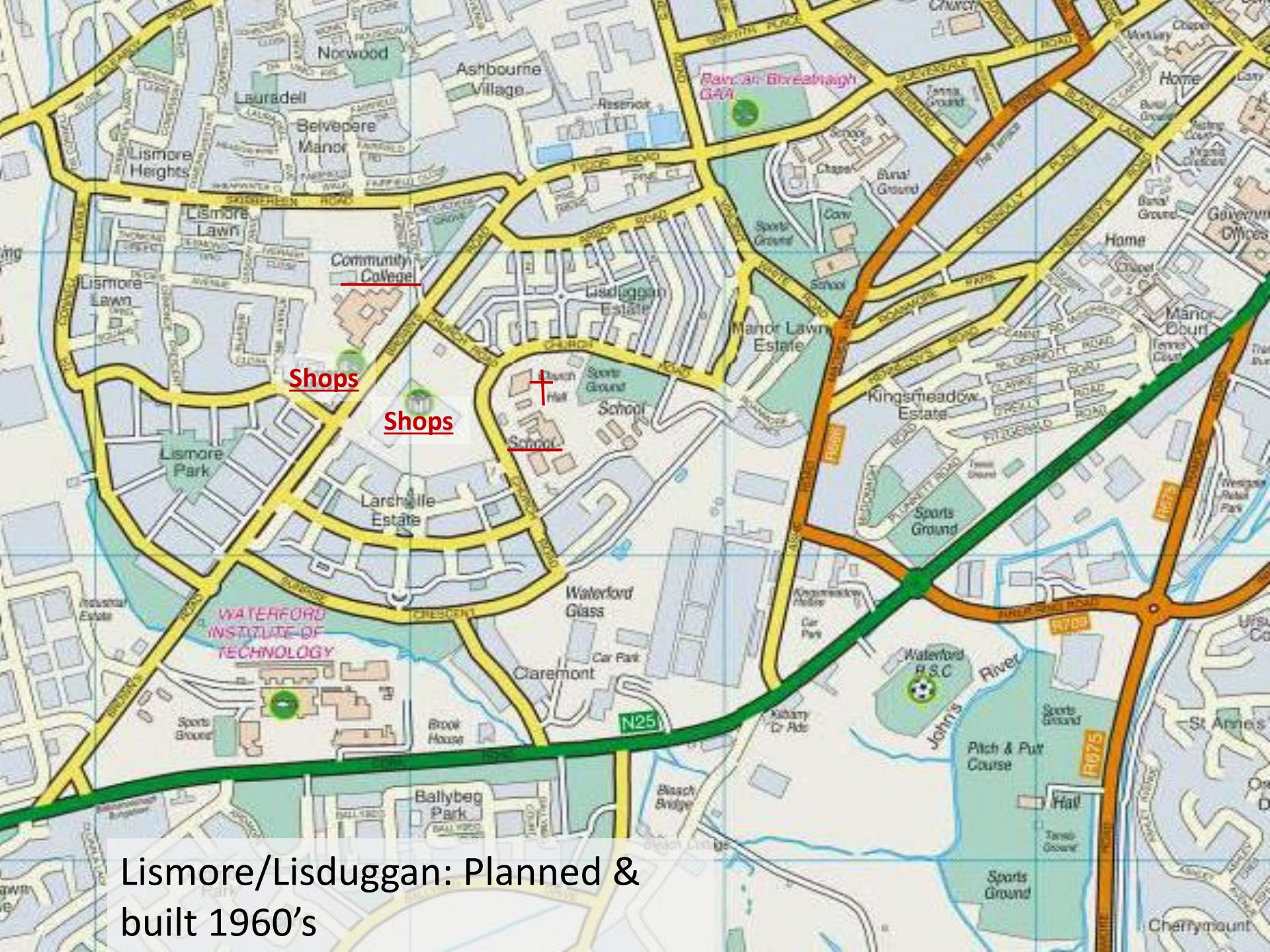
Dunmore Rd. at Glenville
Easter hols, 2019, ±1pm

Photo: E. Mullan

We have systematically designed physical activity out of our suburban areas....

....because mobility, social connectivity and housing have not been planned together.





Shops

Shops

Lismore/Lisduggan: Planned & built 1960's



Dunmore Rd./Williamstown Rd.:
Planned (?) & built from 1980's



Carchitecture



Figure 2.4: Example of a residential community designed according to the keynote principles of segregated street networks. 1) Distributor roads are designed to facilitate free flowing traffic and provide access to 2) neighbourhood cells. Movement through the cell enforced via a dendritic street layout of 3) cul-de-sacs that spread out like the branches of a tree (base image source: Google Maps).

Welcome to
Mulligans Pharmacy

order+
collect

Arkeen Shopping Centre,
Drive-Thru Pharmacy
Ardkeen Village to rear



Arkeen Shopping Centre,
Ardkeen Village to rear





Williamstown Rd.

Photo: E. Mullan

500m-1k to exit on to Williamstown Rd

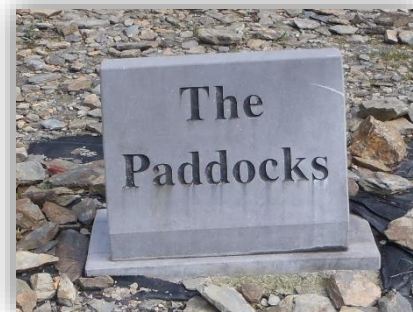
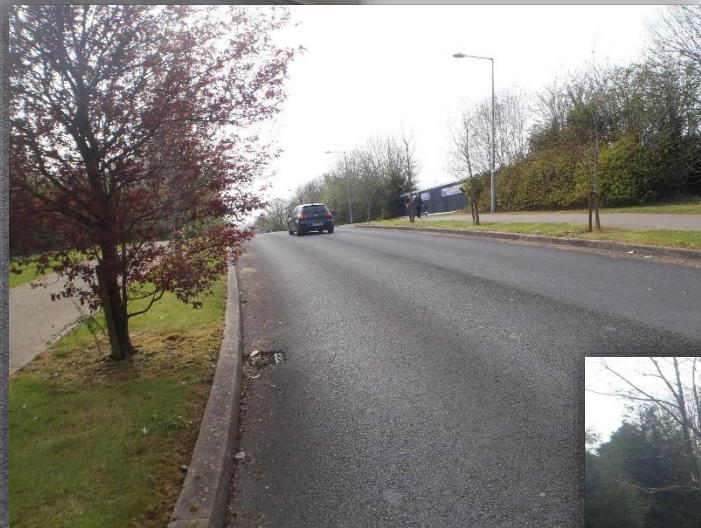




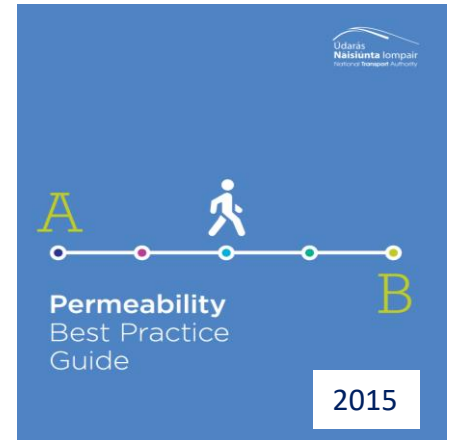
Photo: E. Mullan



Photo: E. Mullan



Barriers to permeability



- Boundary walls
 - Cul-de-sacs
 - Poorly designed connections
- = Much longer travel distances
- = Easier to drive!





Such designs effectively prevent walking and cycling because destinations (friends' houses, schools, shops, workplaces) are too far away, and the surrounding roads are full of traffic



E ORCHARD

R709

R709

R709

R680

R675

R708

SuperValu Kilbarry

Ursuline Convent Sports Ground

Shop

Waterford Regional Sports Centre

KILCOHAN INDUSTRIAL COMPLEX

KEN ROAD BUSINESS PARK

Waterford Nature Park 🌿

John's River

Ashley Ave

Ashley Ct

Ashley Dr

Old Trammore Road

German Rd
Crystal Ct

Páirc Eoin

ST JOHN'S PARK

SPAR etc.

STORE ALL INDUSTRIAL COMPLEX

Azzurri Sport

Killure Grove

Páirc Eoin

AVONDALE

Clodagh Rd

Avoca Dr

Shannon Dr

BRACKEN GROVE

Birch Dr

R708

R675

OLD TRAMMORE ROAD

KILL ST LAWRENCE

GREENFIELDS

R710

Tesco's etc. →

Bracken Court Accessed from Old Tramore Rd.



Kill St. Lawrence Accessed from John's Pk. /Airport Rd.



We have prioritised cars over people in Irish suburbs



Can't expect people to be active when inactivity is so strongly reinforced by their environment & thus the prevailing social norms

