

WHAT DO YOU THINK OF WHEN YOU HEAR THE WORD

## NEIGHBORHOOD?

## © 2016 MICROSOFT



EAST 4TH STREET, CLEVELAND, OHIO

## GATHERING PLACES

© 2016 HAZEL BORYS


CLEVELAND MUSEUM OF ART

## CIVIC AMENITIES

© 2016 HAZEL BORYS


GREAT LAKES BREWING COMPANY, CLEVELAND

## WORKPLACE ANCHORS

© 2016 HAZEL BORYS


WINNIPEG, MANITOBA

## CONNECTIONS

© 2015 HAZEL BORYS


## CONNECTIONS

IMAGE CREDIT: CITY OF EDMONTON



WINNIPEG, MANITOBA

## CONVIVIALITY

IMAGE CREDIT: ROBERT GALSTON, 2015


WINNIPEG, MANITOBA

## CONVIVIALITY

© 2015 HAZEL BORYS


## WELLNESS

FESTIVAL DU VOYAGEUR, WINNIPEG, MANITOBA

## CULTURE

© 2015 HAZEL BORYS


WINNIPEG ART GALLERY

## CULTURE

© 2015 STEPHEN BORYS


## COMPLETE

IMAGE CREDIT: RAW-ALMOND.COM, 2015


## COMPLETE

IMAGE CREDIT: STEVE MOUZON, @STEVEMOUZON


EVIDGHEDSFIORDEN, GREENLAND

## RESILIENT

WALK :: CYCLE :: SKI :: SKATE :: SLED
DESIGNING FOR ACTIVE LIFE




THE TRANSECT AND

## COMMUNITY

IMAGE CREDIT: TRANSECT.ORG


1. STAY ALIVE

DESIGNING FOR ACTIVE LIFE:

## STREET CHARACTER



CHARACTER: A REFLECTION OF PRIORITIES

## LINK OR PLACE?

ADAPTED FROM COMPLETE MOBILITY @DEWANMKARIM. FLICKRIMAGES: (L) COUNTRY LEMONADE; (R) LA CITTA VITA

LINK:
STREET AS MOVEMENT CORRIDOR

DESIGN PRIORITY:
SAVE TIME


PLACE:
STREET AS DESTINATION

DESIGN
PRIORITY:
SPEND TIME

SPEED \& PHYSICAL INJURY: LIKELIHOOD \& OUTCOMES

## AUTO-PEDESTRIAN COLLISIONS



2. RAISON D'ETRE

DESIGNING FOR ACTIVE LIFE:

THE USEFUL WALK


CONNECTED BLOCK STRUCTURE

## MIXTURE OF USES

IMAGE CREDIT: CITY OF SARASOTA, FLORIDA

Compliance with Allocation of Land Outside Pedes-
trian Sheds as set forth in Section 2.1.8

Transect Zones outside shed T1, T3

Compliance with Pedestrian Shed requirements as set forth in Section 23.2.b

Transect Zones within shed T3, T4, T5T1 - NATURAL ZONE
T3 - SUB-URBAN ZONE
TA - GENERAL URBAN ZONE
T5-URBAN CENTER ZONE
CS - CIVIC SPACE
CB - CIVIC BUILDING RESERVE
$1 / 4$ MILE PEDESTRIAN SHED

CONNECTED WINNIPEG

## MIXTURE OF USES

© 2010 HAZEL BORYS, WINNIPEG


3. SHELTER FROM THE ELEMENTS

DESIGNING FOR ACTIVE LIFE:

## FINE-GRAINED GRID

## FINE-GRAINED STREET GRID

## MAXIMUM BLOCK SIZE

## IMAGE CREDIT: CITY OF SARASOTA, FLORIDA

Compliance with Maximum Block Sizerequirements as set forth in Table 14 C

## Vaniance request

1. Block size exceeding by 3216 lineal feet for interior parking while maintaining attached green
2. Block size exceeding by 221.02 lineal feet 15 designation is anchoring an important termination.
3. Block size exceeding by 236.99 linealfeet. Block is outside of Pedestrian Shed.



4. NEIGHBOURHOOD ANCHORS

DESIGNING FOR ACTIVE LIFE:

## CIVIC AT HEART

NEIGHBOURHOOD ANCHORS

## CIVIC AT HEART

IMAGE CREDIT: CITY OF SARASOTA, FLORIDA



5. ALLEY-LOADED

DESIGNING FOR ACTIVE LIFE:

HUMAN SCALE


## HUMAN SCALE

## ALLEY LOADED

## IMAGE CREDIT: CITY OF SARASOTA, FLORIDA

Compliance with Allocation of Land Outside Pedes trian Sheds as set forth in Section 2.18

Transect Zones outside shed: T1, T3

Compliance with Pedestrian Shed requirements as set forth in Section 23.2.b

Transect Zones within shed: T3, T4, T5


T1 - NATURAL ZONE
T3 - SUB-URBAN ZONE
T4 - GENERAL URBAN ZONE
T5 - URBAN CENTER ZONE
CS - CIVIC SPACE
CB - CIVIC BUILDING RESERVE
$1 / 4$ MILE PEDESTRIAN SHED





DESIGNING FOR ACTIVE LIFE

- Street Character Link or Place
- The Useful Walk Mixture of Uses
- Fine-Grained Grid Shelter from Elements
- Civic at Heart
- Human Scale

Neighbourhood Anchors
Alley Loaded

QUEEN'S UNIVERSITY SCHOOL OF URBAN AND REGIONAL PLANNING

## A COUNTRY OF SUBURBS

IMAGE CREDIT: DR. DAVID GORDON, PROFESSOR; SOURCE: STATISTICS CANADA, 2011 AND 2006 CENSUS TRACT DATA


LEGEND
Active core Transit suburb Auto suburb Exurban TIM Unclassified

WINNIPEG

Active core: 12\% Transit suburb: 5\% Auto suburb: 75\% Exurban: 8\%


Classification: 2006 Census
Census tracts and population:
2011 Census

## $75 \%$ <br> AUTO 'BURB

12\%
ACTIVE CORE

MEASURING THE ACTIVE METROPOLIS

## GOT WALKABILITY?

## Walk sorere Winnipeg is Somewhat Walkable

Some errands can be accomplished on foot.





QUEEN'S UNIVERSITY SCHOOL OF URBAN AND REGIONAL PLANNING

## MONTREAL



## LEGEND

Active core
$\square$ Transit suburb Auto suburb Exurban ITM Undassified

## MONTREAL

Active core: 10.5\% Transit suburb: 13.5\% Auto suburb: 72\% Exurban: 4\%

AUTO 'BURB
72\%


Classification: 2006 Census Census tracts and population: 2011 Census
10.5\%

ACTIVE CORE

QUEEN'S UNIVERSITY SCHOOL OF URBAN AND REGIONAL PLANNING

## QUEBEC CITY

IMAGE CREDIT: DR. DAVID GORDON, PROFESSOR; SOURCE: STATISTICS CANADA, 2011 AND 2006 CENSUS TRACT DATA


LEGEND
Active core
$\square$ Transit suburb
$\square$ Auto suburb Exurban

QUEBEC CITY

Active core: 15\% Transit suburb: 6\% Auto suburb: 65\% Exurban: 14\%


Classification: 2006 Census Census tracts and population: 2011 Census
$65 \%$
AUTO 'BURB
$15 \%$
ACTIVE CORE

MEASURING THE ACTIVE METROPOLIS

## GOT WALKABILITY?

IMAGE CREDIT: WALKSCORE.COM

Walk Score
Get Scores
Find Apartments
My Favorites

## Living in Montréal



## 175 Saint Catherine Street West

Ville-Marie, Montréal, H2X 3X5
Commute to Downtown Westmount
(10) 8 min 20 min min 145 min View Routes

## Favorite

## Walk Score <br> 100

car.

100 lanes.

## Walker's Paradise

Daily errands do not require a

Biker's Paradise
Flat as a pancake, excellent bike


GETTING ACTIVE WITH DEVELOPMENT BY-LAWS
FORM-BASED CODE

IMAGE CREDIT: MARINA KHOURY @MARINARKHOURY

## Use \& Density

Permit Process

Form

Form
Permit Process
Use \&
Density

NEIGHBOURHOOD UNITS

## ZONES V. COMMUNITY

image Credit: LÉON KRIER, THE ARCHITECTURE OF COMMUNITY


TRANSIT-IMPERVIOUS PODS

## SUBURBAN V. SUSTAINABLE

IMAGE CREDIT: PRINCE'S FOUNDATION FOR THE BUILT ENVIRONMENT


## USE- <br> BASED

FORMBASED

## T3 SUB-URBAN: Kingsway at Oxford

Low density residential areas, adjacent to higher zones that contain some mixed use. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and roads irregular to accommodate natural conditions.


KINGSWAY \& OXFORD



PUBLIC FRONTAGE



PRIVATE FRONTAGE
\(\left.$$
\begin{array}{rl}\begin{array}{r}\text { Private Frontage } \\
\text { Type }\end{array} & \begin{array}{l}\text { Porch and fence } \\
\text { or common lawn }\end{array} \\
\hline \begin{array}{r}\text { Principal building } \\
\text { height }\end{array} & 2-3 \text { stories } \\
\hline \begin{array}{r}\text { Outbuilding } \\
\text { height }\end{array} & 1-11 / 2 \text { stories } \\
\hline \begin{array}{r}\text { Building } \\
\text { disposition }\end{array} & \text { Edge Yard } \\
\hline \begin{array}{rl}\text { Lot size }\end{array} & 68^{\prime} \times 150^{\prime} \\
& 20.7 \mathrm{~m} \times 45.7 \mathrm{~m} \\
\hline \text { Lot coverage } & 60 \% ~ \mathrm{max}^{2} \\
\hline \begin{array}{r}\text { Build out } \\
\text { percentage @ } \\
\text { sidewalk }\end{array}
$$ \& 60 \% <br>
\hline Front Setback \& 30^{\prime} \mathrm{min}, 50^{\prime} \mathrm{max} <br>

\& 9.1 \mathrm{~m}, 15.2 \mathrm{~m}\end{array}\right]\)| Side Setback | $3^{\prime}$ to $5^{\prime}$ or |
| ---: | :--- |
|  | 0.9 to 1.5 m |

Image credit: City of Winnipeg, Manitoba and PlaceMakers

## T4 GENERAL URBAN: Dorchester at Lilac

Mixed use, but primarily residential urban fabric. It may have a wide range of building types: singles, rowhouses, and apartment bullifings. Setbacks and landscaping are variable. Streets with curbs and sidewalks define medium-sized blocks.


DORCHESTER @ LIALIC

| Average Block <br> Dimension | $1,520^{\prime}$ perimeter |
| ---: | :--- |
| 463 m |  |$|$| Residential Units |
| ---: | :--- |
| per Acre | 24



PUBLIC FRONTAGE

| Public Frontage <br> Type |  |
| ---: | :--- |
| ROW Width $57^{\prime}$ or 17.4 m |  |
| Moving Lanes 2 |  |
| Parking Lanes 1 |  |
| Pavement Width $29^{\prime}$ or 8.8 m |  |
| Curb Type $6^{\prime \prime}$ raised |  |
|  | 15 cm raised |
| Curb Radius $16^{\prime} 8^{\prime \prime}$ or 5.1 m |  |
| Sidewalk $4^{\prime}$ or 1.2 m |  |
| Planter Type | Tree Lawn |
| Planter Width | episodic |
| Planting Pattern | episodic |



PRIVATE FRONTAGE
Type Porch and Fence

| Principal building <br> height | 3 |
| ---: | :--- |
| Outbuilding <br> height | 1.5 |
| First floor above <br> grade | $0-24^{\prime \prime}$ |
| $0-0.6 \mathrm{~m}$ |  |\(\left|\begin{array}{rr}Building \& \begin{array}{l}Edgeyard, <br>

disposition <br>
Sideyard, <br>
Rearyard\end{array} <br>
\hline $$
\begin{array}{r}\text { Build out }\end{array}
$$ \& 75 \% min <br>
percentage @ <br>
sidewalk\end{array}\right|\)
$8^{\prime}$ or 24 max

Image credit: City of Winnipeg, Manitoba and PlaceMakers

## T5 URBAN CENTER McDermot at Albert

Higher density mixed-use buldings that accommodate retail, offices, multi-family residential. It has a tight network of streets, with wide sidewalks, regular street tree planting and buildings set close to the sidewalks.


Image credit: City of Winnipeg, Manitoba and PlaceMakers

EXISTING
provides an area for a central pedestrianoriented concentration of retailing, personal services, public uses, and office uses.


EXISTING SPECIAL DISTRICT provide for commercial areas to be located on highways and major thoroughfares; primarily retail trade or service establishments


LOT
Central Business (CB)


Highway Commercial

EXISTING
SPECIAL DISTRICT The reacetrack commerical district features the same bulk regulations as the CBD but with specific controls on Uses to support the performance of racetrack functions, and provide for its efficient operation, continuation, and expansion.

Racetrack
Commercial (RC)


PLACEMENT
Edgeyard
Sideyard Rearyard

HEIGHT Principal Building Accessory Building

EXISTING SPECIAL DISTRICT Primarily for manufacturing and processing industries, and their accessory uses, supporting storage transportation and distribution activities and the supporting activities needed for the convenience of employees

| Industrial District (I) |
| :---: |
| Landscape Buffer* |
| $150 \mathrm{ft} .-180 \mathrm{ft}$. |
| 125 ft. |
| - |
| 0 ft. |
| $0 \mathrm{ft}$. |
| 10 ft. |
| $10 \mathrm{ft}$. |
| permitted |
| permitted |
| permitted |
|  |
| $50 \mathrm{ft}$. |

EXISTING

## COMMUNITY UNIT

MUX uses + more)
Provide for the location of shops, services, small worksplaces, and civic buildings central to a neighborhood within walking distance to residential dwellings.


| by Building Type* |
| :---: |
| $5-20 \mathrm{ft}$. min |
| $5-30 \mathrm{ft} . \mathrm{min}$. |
| $5-30 \mathrm{ft} . \mathrm{min}$. |
| $15-30 \mathrm{ft}$. min. |
|  |
| permitted |
| permitted |
| permitted |

EXISTING

## COMMUNITY UNIT

(MUX + NCX Uses +
more)
Serves a large market but not regional;
employment, industrial parks, mixture of housing types; community buildings and stores/offices/ workplaces


| permitted |
| :---: |
| permitted |
| permitted |

2 ft . min. 12 ft . max.
0 ft . min. 24 ft max.
$3 \mathrm{ft} . \mathrm{min}$.
PROPOSED


Image credit: Provo, Utah and PlaceMakers


Image credit:
City of Las Cruces, NM and PlaceMakers

## Form-Based

Illustrative plan tests out market based urban design ideas


## Article 5

Subdivision \& Zoning
Subdivision \& Zoning

4 TABLE 16. T2O LOT STRUCTURE


Principal Building The main building on a Lo
Outbuilding A secondary building usually located toward the rear of the same Lot as a Outbuildings Principal Building such as a garage, carport, or workshop and may include an LOT LAYERS Accessory Unit. Lots exceeding 150' in depth may have a second outbuilding. First Layer $\begin{aligned} & \text { The area of a Lot from the the Frontage Line to the Facade of the Principal } \\ & \text { Building. }\end{aligned}$ Second Layer $\frac{\text { The area of a Lot set behind the 1st Layer to a depth of } 20 \text { feet. }}{\text { The }}$ The area of a Lot set behind the 2nd Layer and extending to the rear Lot Line or to a depth of $150^{\prime}$. Lots in excess of 150' deep have a fourth layer. This area is usually used for Fourth Layer agriculture, and agricultural uses may be limited to this layer. See Subsection 5.7.4.
LOT SIZE Lot Depth Flag lots are permitted in T2O. Standard lot depts may be interspersed with

Lot Depth lots in excess of 150 ' that shall be primarily used for agricultural purposes.
TABLE 17. FRONTAGES \& ELEVATIONS


TABLE 6. PRIVATE FRONTAGES

tasle X (tSmedump bulk stindaros - Ts - neoun







| BUILING FRONTAGE |  |  |  |
| :---: | :---: | :---: | :---: |
| Requireo frontage setack twpes |  |  |  |
| Pusemian Srest | matow, utan $\alpha$ p posestion forecort |  |  |
| Access steet |  |  |  |
| Aastonal Requiament | comme | yard pemmad lor sind | Sbemat cody |
| Reoured specinc frontage trpes |  |  |  |
| Pesestun sreet | common entry, shopfiont arcase, galery, lerrace, stoop, or porch (access is ground floor pesifental uses only) |  |  |
| Accoss Stuet |  ground focor revisental ines only) |  |  |
| access restractions |  |  |  |
| Pestersion Street | 1 access way for lees up to 150 in of toreage. 1 access per 752 . for libe ceve 150 ? |  |  |
| Access Steet |  |  |  |
| emame ouzing |  | andient standards |  |
| Guoud Fibor: | 755 | Lottent | 2temax |
| Second fior | 455 | Noise 12 mm 5 Tam | 6088a |
| Usow focor | 30\% | Nouse Tan to romm | Tsota |
|  |  | Nosee 100m to 12 mm | 0080 |
| Ex(ts meorm | Kemo | оrum |  |



Image: City of Phoenix, AZ, DPZ, and PlaceMakers












## LEGALIZING THE ACTIVE METROPOLIS

## CODESSTUDY.ORG



Codes Study: SmartCodes and Other Form-Based Codes



Form-Based Codes Adopted 1981-2015 + In Process 2016


[^0]


PAYBACKS TO PEOPLE, PLANET, PROFIT

## THE NURTURING METROPOLIS

WALKABLE PLACES ARE EQUITABLE PLACES

## EQUITY



## FOOT <br> TRAFFIC AHEAD

Walkable Urbanism \& Social Equity of the 30 Largest U.S. Metros:


BOWLING ALONE?
EVERY 10 MINUTES OF COMMUTING REDUCES SOCIAL CAPITAL BY 10\%

WALKABLE NEIGHBORHOODS ARE RESILIENT

## ECONOMY



HOME PRICE PREMIUM AND WALKSCORE

## 1 POINT = \$3,000 HOME VALUE

REDFIN, HOW MUCH IS A POINT OF WALK SCORE WORTH? 2016


HOME PRICE PREMIUM OF WALKSCORE
WALK SCORE: 60->80: \$100,000
REDFIN, HOW MUCH IS A POINT OF WALK SCORE WORTH? 2016
Home Price Premiums for Increases in Walk Score from 60 to 80


## SAVINGS ON DENSE INFRASTRUCTURE 38 \%



Building Better Budgets, Smart Growth America, 2013

WALKABLE NEIGHBORHOODS ARE RESILIENT

## CALGARY SAVES 33\% OF COSTS

2009 CITY OF CALGARY

Compact development estimated to save Calgary $\$ 11$ billion over 60 years:

Roads :: Transit :: Water ::
Recreation :: Fire :: Schools

POLICE, AMBULANCE, FIRE

## SAVINGS ON DENSE SERVICES 10\%



Building Better Budgets, Smart Growth America, 2013 Smart Growth America

SMART GROWTH DEVELOPMENT

## 10X MORE TAX REVENUE PER ACRE



## TAX REVENUE PER ACRE

## © 2016 HAZEL BORYS



## TAX REVENUE PER ACRE

© 2016 HAZEL BORYS


WOODSTOCK, GEORGIA

## 39X MORE REVENUE PER ACRE



## 4X MORE JOBS PER ACRE

© 2016 HAZEL BORYS


Super WalMart Outlet Mall New Main St

| Land Consumed | 30 | 49 | 0.65 |
| :--- | :--- | :--- | :--- |


| Property Tax / Acre $\$$ | 5,706 | $\$ 8,886$ | $\$ 223,575$ |
| :--- | :---: | :---: | :---: | ---: |
| Residents / Acre | - | - | 103 |
| Jobs / Acre | 10 | 20 | 40 |

## LESS CAR COSTS \& LESS CARBON

## ABOGO.COM

## transportation costs made transparent

What is Abogo?
Abogo is a tool that lets you discover how transportation impacts the affordability and sustainability of where you live.

Sign up for Updates
Blog
\$4,155: Gas Bill for the Typical American Household

An Associated Press article found that the typical American household pays $\$ 4,155$ a year to fill their gas tanks-or 8.4 percent of median family income. Research by the Center for Neighborhood Technology has found that living in location efficient places-walkable communities with access to amenities and transit-helps people keep transportation costs low compared with people [...]

Santa and his Bright Red

Enter an address to find out what a typical household would spend on transportation.

```
Current Address: woodstock, ga
Search
```



Transportation Cost 3 for an average household
\$951/month

Transportation $\mathrm{CO}_{2}$ Impact ?
for an average household
0.77 metric tons/month ?

## CNT



What is Abogo?
How it Works
Lower Your Costs
FAQ
CNT Resources
Blog

How to spend less:

MINNEAPOLIS, MINNESOTA

## FORM DRIVES RETURNS

© 2016 HAZEL BORYS


## DOWNTOWN DRIVES VALUE

SOURCE: WALKSCORE.COM

| Walk Score ${ }^{\circ} \mathrm{O}$ Get Scores | Find Apartments | My Favorites |
| :---: | :---: | :---: |
| (3) Type an address, neighborhood | city Go |  |

## Living in Grand Forks

40 Grand Forks is a Car-Dependent city Most errands require a car.


Demers Ave \& N 3rd St Grand Forks, North Dakota, 58203 Commute to Downtown Grand Forks
© $1 \mathrm{~min}=2 \mathrm{~min}$ ab 1 min i 4 min vew roctes



## DOWNTOWN CASH COW

IMAGE CREDIT: JOE MINNICOZZI


NASHVILLE, TENNESSEE

## 1,150X INCOME PER ACRE

© 2013 BUILDING BETTER BUDGETS, SMART GROWTH AMERICA


## PROPERTY VALUES UP 3.5X REGION

2013, RICHARD BERNHARDT, PLANNING DIRECTOR, CITY OF NASHVILLE

Area

## 2005 Appraisal \$Million

2009 Appraisal<br>\$Million

2013 Appraisal \$Million

Form
Based
Code
$\$ 918$
$\$ 1,553$
\$1,977
115\%

-     + \$9 / Square Foot Annual Office Rents
-     + \$7 / Square Foot Annual Retail Rents
-     + \$300 / Month Apartment Rents
-     + \$82 / Square Foot Home Value

HOMES IN WALKABLE NEIGHBOURHOODS

## <1/2 DECLINE OF RECESSION

BROOKINGS INSTITUTION, 2011. IMAGE CREDIT: HAZEL BORYS, 2015, QUEBEC CITY.


WALKING BURNS LESS CARBON
ENVIRONMENT

LOSS OF RURAL LAND TO SPRAWL

## 40 ACRES PER HOUR

## 41 MILLION ACRES 1982 TO 2007



NYC VERSUS THE AVERAGE AMERICAN NEW YORKERS EMIT 66\% LESS GHG THAN AVERAGE AMERICAN



[^0]:    Source: Codes Study, Hazel Borys and Emily Talen, as of March 2016, Creative Commons NonCommercial ShareAlike License

