

Towards a Corporate Approach to Wayfinding

Outline Report: Final – September 2013



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wayfinding information design

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Executive summary

This outline report was commissioned by the City of Edmonton to guide the development of a strategy for a citywide wayfinding system.

Wayfinding has become more than coordinated designs for direction and identity signs. Modern approaches are more strategic, recognising that wayfinding crosses communication media, integrates disparate areas and services, and can promote both tourism and wider transportation choices.

Increasingly, cities around the world from London to Vancouver and New York to Sidney, are investing in wayfinding strategies to help visitors and residents to get more from their cities.

This report is the first in a series of steps for Edmonton. It sets out the challenges and opportunities for a consistent, coordinated and manageable system of information. It recognizes the historic and future growth of the city, its desire to enable modal shift, its cultural programs and the value of its neighbourhoods.

The report describes how different agencies collaborating around central guidelines can produce information that helps people at every point along their whole journey. This user-first model provides confidence and presents the city as a place to explore rather than a collection of discrete destinations. It however relies on agreeing to a 'root and branch' look at how information is presented, coordinated and managed for the benefit of visitors.

A map-based approach is proposed, following the models of London and Vancouver. Map-based systems allow maximum information to be communicated with the least amount of signage and across traditional and new media. This approach has been shown elsewhere to particularly help cities appear more walkable and in turn to support transit use, parking management and local business viability.

The report closes with suggested next steps for developing the strategy using examples and potential projects. Illustrative budget costs are provided along with a governance model that will help marshal the collective efforts and needs of a partnership of agencies necessary to create and manage a system.

Brief

The brief for this study was to assist the City of Edmonton on a journey towards a corporate approach to wayfinding.

The City is investigating wayfinding as one action amongst many outlined in its 'Ways' strategy documents and in response to a number of specific issues. Information helping people find their way by unfamiliar modes of travel, for newcomers to the City and for business and leisure visitors all have their part in the project.

Wayfinding is also a topical item of conversation in the city as a result of to advocacy and projects improve use and navigation of the Pedway and River Valley Parks. The 'Make Something Edmonton' group are an example of grass-roots community interest that has raised the profile of wayfinding in the city.

The City believes that a first best step would be to provide central guidance that could coordinate its own wayfinding needs and through promotion, inform others.

Study aims

To agree on objectives and a scope of work for a walking-based wayfinding system that can integrate other interests and jurisdictions. The system would be multi-modal and multi-media, with the city leading a corporate standard.

Study tasks

- Research current city standards including an assessment of conditions and needs
- Advise on city legibility, wayfinding and examples to the City, partners and stakeholders
- Prepare a summary report setting out key insights, potential project scope, priorities and partners

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Section 1
Background observations





Background observations

This section provides a setting for the wayfinding project. The characteristics, trends and policies of the city have a bearing on why wayfinding information may be helpful and who could benefit from better information.

Wayfinding is a means to help people navigate and also to better understand and relate to a place. Directional signage is not enough to achieve all of this, so the background observations touch on the more fundamental legibility issues that the city creates for people and also the identity that could be conveyed.

Background observations

City vision

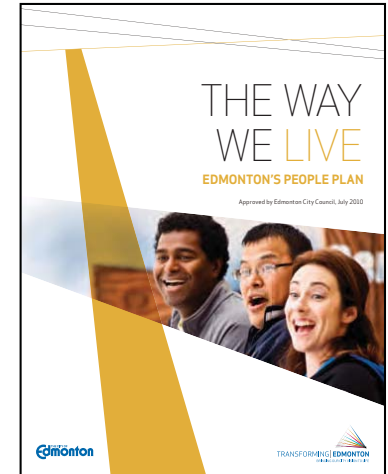
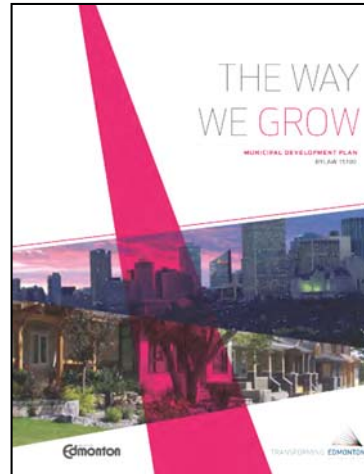
The City of Edmonton has published a suite of policy documents between 2008–2013 collectively known as ‘The Ways’, setting out strategic recommendations for improving the infrastructure, economics and sustainability of the City as a whole.

Throughout, there is a constant theme of sustainability and connectedness, not just in transport but in lifestyle choices, manufacturing, energy consumption and sense of community. Key to meeting these objectives is ensuring all initiatives work together to deliver the bigger picture.

Commitments include:

- Create a more walkable environment, a cycle-friendly city and an integrated network of multi-use trail facilities
- Make Downtown a high quality tourist destination
- Developing and implementing a strategy to connect neighbourhoods with a system of greenways, linking residential areas to commercial areas, parks, schools, transit and more
- Provide the foundations for creating a liveable, vibrant, engaged and welcoming city.

Citywide seamless wayfinding is a key component in improving walkability, creating a welcome and connecting the neighbourhoods, transit and attractions for visitors, and encouraging a shift to active transportation and improved quality of life for residents.



Background observations

Economic growth

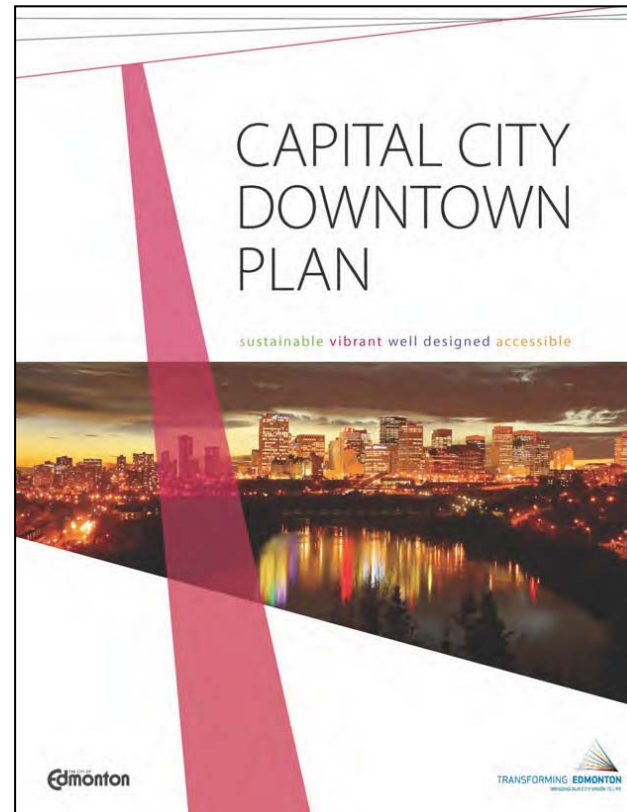
40–70% growth is predicted over the next 35 years with a pace of development that has made wayfinding hard to coordinate.

The City is investing \$3Bn in Downtown revitalization projects, to include a new Arena, hotels, offices, retail and recreation spaces. The Royal Alberta Museum is also relocating to a new building just north of Churchill Square and Edmonton Transit System is planning to expand the Light Rail Transit.

The influx of new residents to Downtown has prompted calls for better information and community initiatives have revitalized areas, such as 104th Street.

Beyond Downtown, Business Revitalization Zones are improving their streetscapes and starting to attract new business and visitors.

The increase in attractions, leisure and retail Downtown will make parking more of a premium, increasing the need to park further out and walk or use transit. Coupled with the desire to connect the neighbourhoods, wayfinding information will play an important role in supporting this growth.



Background observations

Visitor profiles

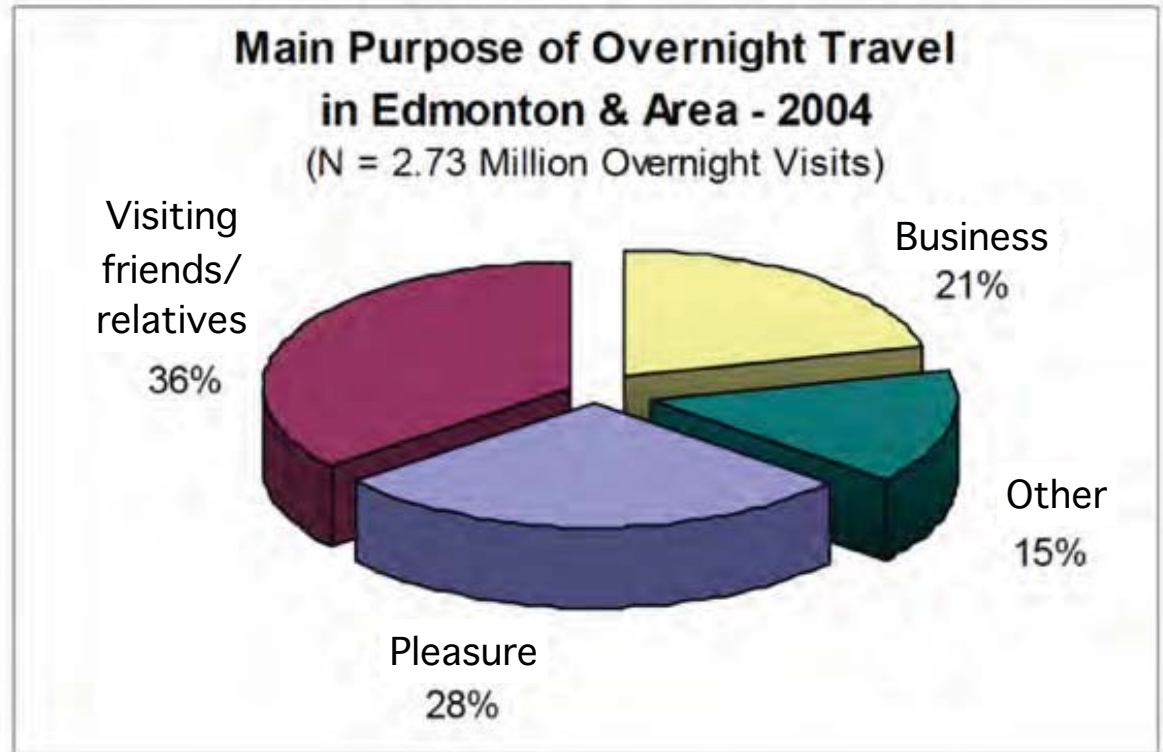
The majority of visitors to Edmonton are from within Alberta and Canada, with a small percentage (9% USA and 3% international) coming from elsewhere. Foreign visitors tend to stay three times longer than Canadians.

Visitors from within Canada are consistent year round, with peaks from United States and international visitors between April and September. The broad indication is that seasons do not significantly affect the overall visitor numbers.

Anecdotal evidence suggests that most internationals come for short term work or study.

Discussing visitor needs with staff at the EEDC Visitor Centre in Downtown, numbers are so low at weekends that the centre closes, only opening at weekends for Summer, and even then only averaging one or two visitors per day. This may have something to do with the visibility of the centre itself which has now moved to the Shaw Centre.

Popular visitor requests included how to get to the mountains or Elk Island using public transit. The main visitor centre is on Queen Elizabeth II highway and open Monday to Saturday year round, suggesting the importance of arrival by car.



Calendar Quarter of Overnight Visits in the Edmonton and Area Tourism Destination Region - 2009

	January - March (Quarter 1)	April - June (Quarter 2)	July - September (Quarter 3)	October - December (Quarter 4)
All Overnight	20%	24%	30%	26%

Background observations

Visitor impressions

A recent poll of Canadian's views on Alberta, carried out by the government of Alberta, indicated a less than favourable impression – smug, uncaring, arrogant. The impressions from Applied were quite different, but there is work to do to turn this around, as it adds to the already skewed perceptions of people who have never been – “It’s cowboy country isn’t it?”

There is clearly a difference between what the city centre has to offer in contrast to the prairies and a first time visitor may be surprised if they arrive in Strathcona, for example, having been told it’s ‘cowboy country’.

Explaining the offer and helping visitors connect the neighbourhoods will be a key part of changing perceptions.

“It’s cowboy country isn’t it?”

***“Lots of business travelers;
very political here”***

***“Downtown tourist office is shut
weekends. Even when we open we
only get 2 people on a Saturday”***

***“Most people want to get to Elk
Island and the mountains by transit,
but you need a car”***

***“International visitors, but mostly
business and weekdays”***

“West Mall killed Downtown”

Background observations

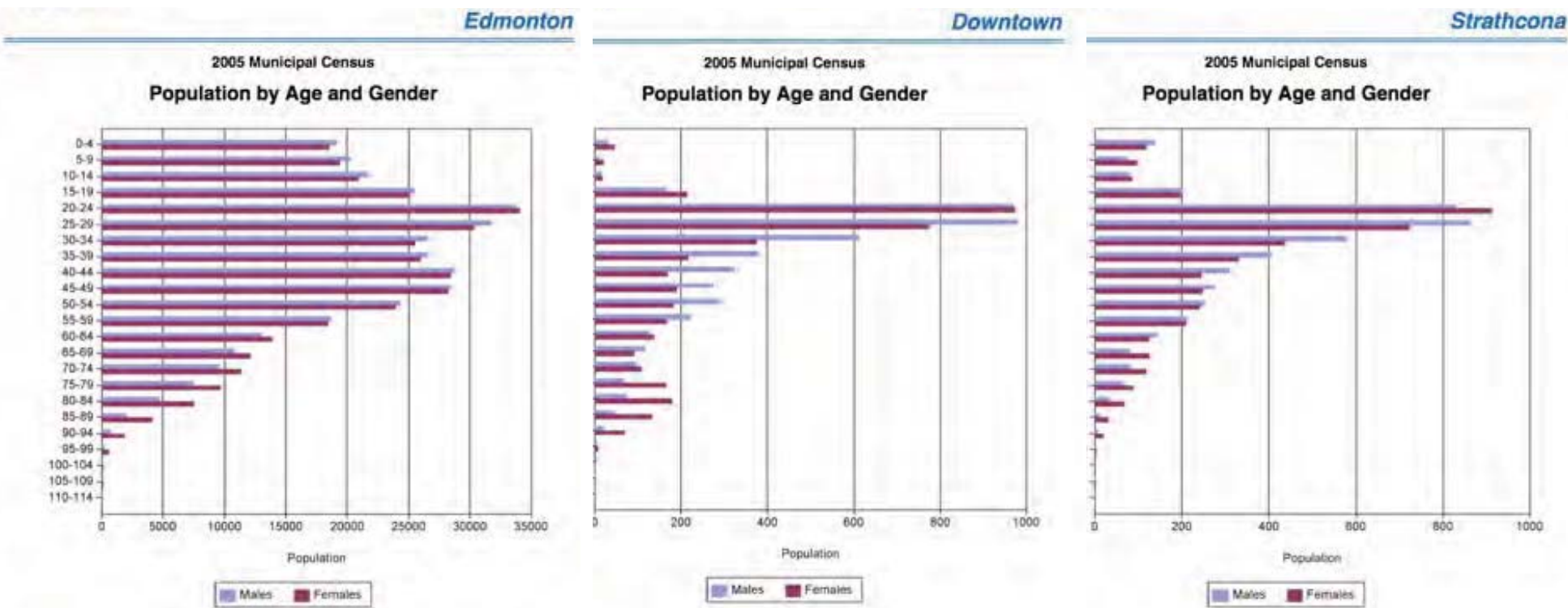
Demographics

Trends are pointing towards the ‘empty nester’ generation moving to downtowns across North America and Canada, so the peaks in 20–50 age groups in Edmonton Downtown and Strathcona are not unique. What is clear is that this trend is at the heart of a desire for more liveable cities, better walking environments and increased reliance on active and public transportation.

Anecdotally, the demographics may also point towards the fact that the kinds of people living in the city centre are mobile and able to take short-term contracts, such as jobs in the oil industry and research. A sense of place brought about by understanding the city, can help encourage them to stay.

“Generation Y are driving a trend to liveable cities by tending to prefer mixed-use, walkable neighborhoods and short commutes”

(Dr Richard Jackson, UCLA)



Background observations

Urban form

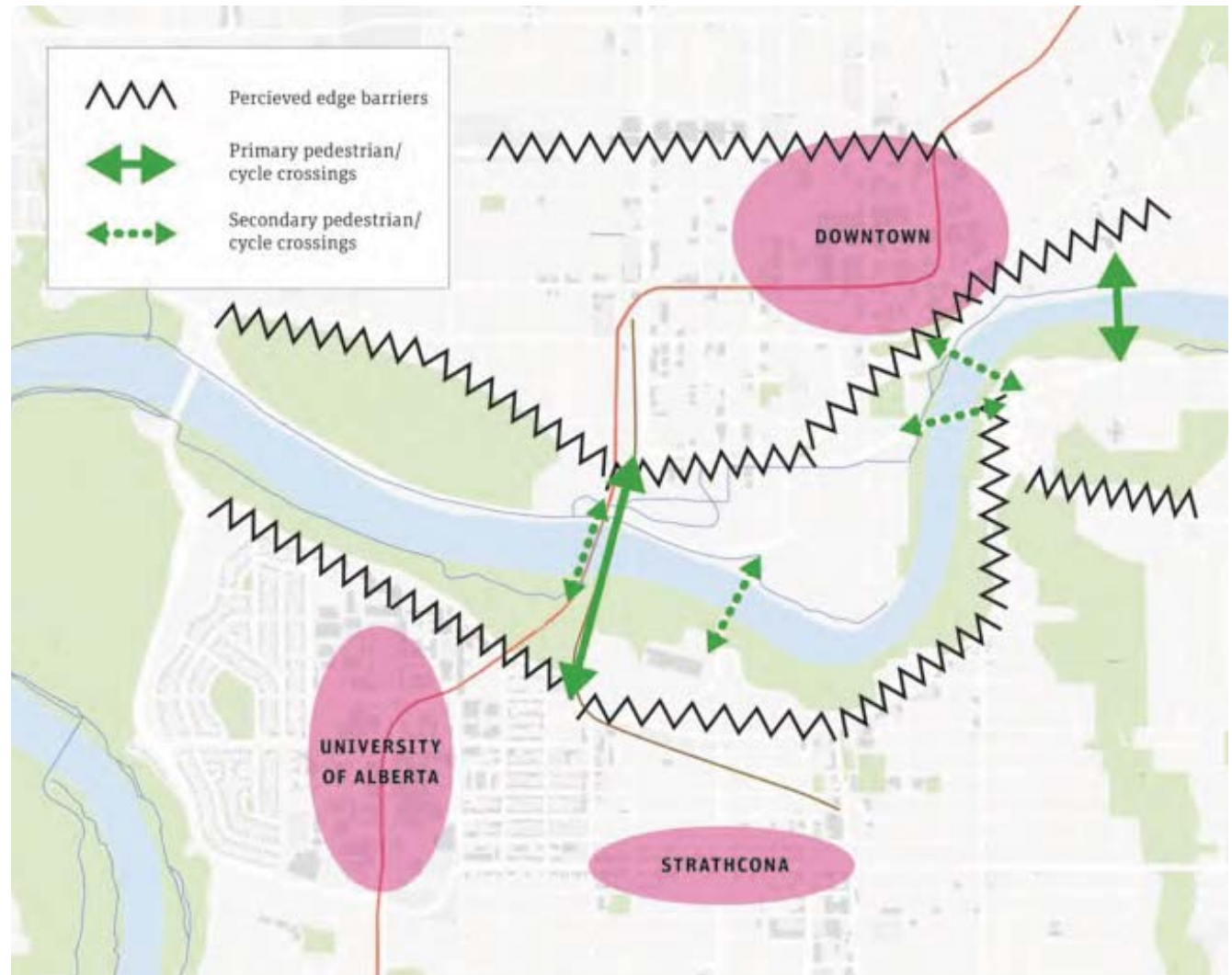
The topography of the River Valley is a huge contrast to the flat, ordered grid of the city. The original divide of the River Valley and historic independence of the two centres is still apparent in the fact that they feel like different places and are visually disconnected – Strathcona and University of Alberta do not have the obvious skyscrapers of Downtown so are hard to ‘see’ when looking across the River Valley into the trees and parks on the banks.

The North Saskatchewan River creates a disorienting relationship to the grid, particularly the main avenues, sometimes perpendicular to main routes such as Jasper Avenue, sometimes parallel.

Downtown feels fragmented as retail and attractions abruptly stop at 104th Avenue or bleed out to the east and west, reducing a sense of ‘centre’.

Capital Boulevard feels a long way from Churchill Square with little between them. Churchill Square seems a natural node for the visitor to gravitate towards, whereas Capital Boulevard does not. The lack of an obvious path between them means there isn’t a natural connection.

BRZ’s are improving certain neighbourhoods such as Stony Plain Road and Alberta Avenue, but do not have strong visual or transit connections to the main centres of Downtown, Strathcona and University of Alberta, meaning the visitor has to work hard to discover them.



Background observations

Urban form



Capital Boulevard is not close enough to Churchill Square to feel connected
Civic and Arts District has shifted some focus from the Capital Boulevard



The river runs both parallel & perpendicular to Jasper Avenue having a disorientating effect

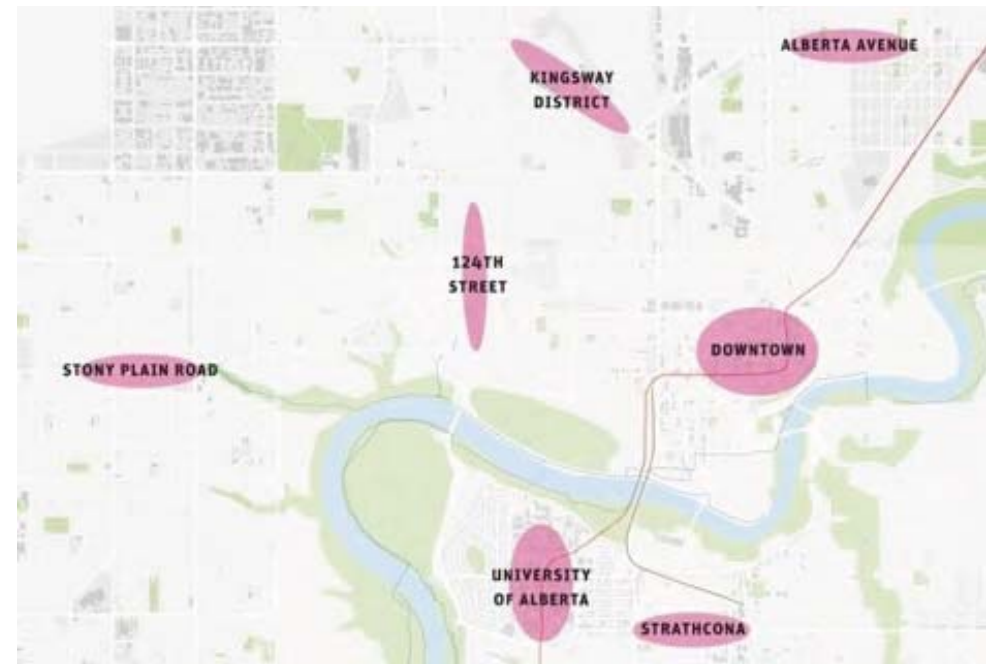
Background observations

Urban form



104th Avenue poses a significant boundary to the north, creating the feeling of an edge to the Downtown area

Retail stores, bars and restaurants continue along Jasper into Oliver, but 109th Street effectively creates a barrier edge from Downtown



Downtown – Capital Boulevard feels a long way from Churchill Square with little between them

Citywide – reasons to visit other key centres such as Alberta Avenue, Stony Plain Road, Kingsway and 124th Street aren't clear to the first time visitor. A reliance on buses to visit them also reduces their attractiveness

Background observations

Urban form

The grid

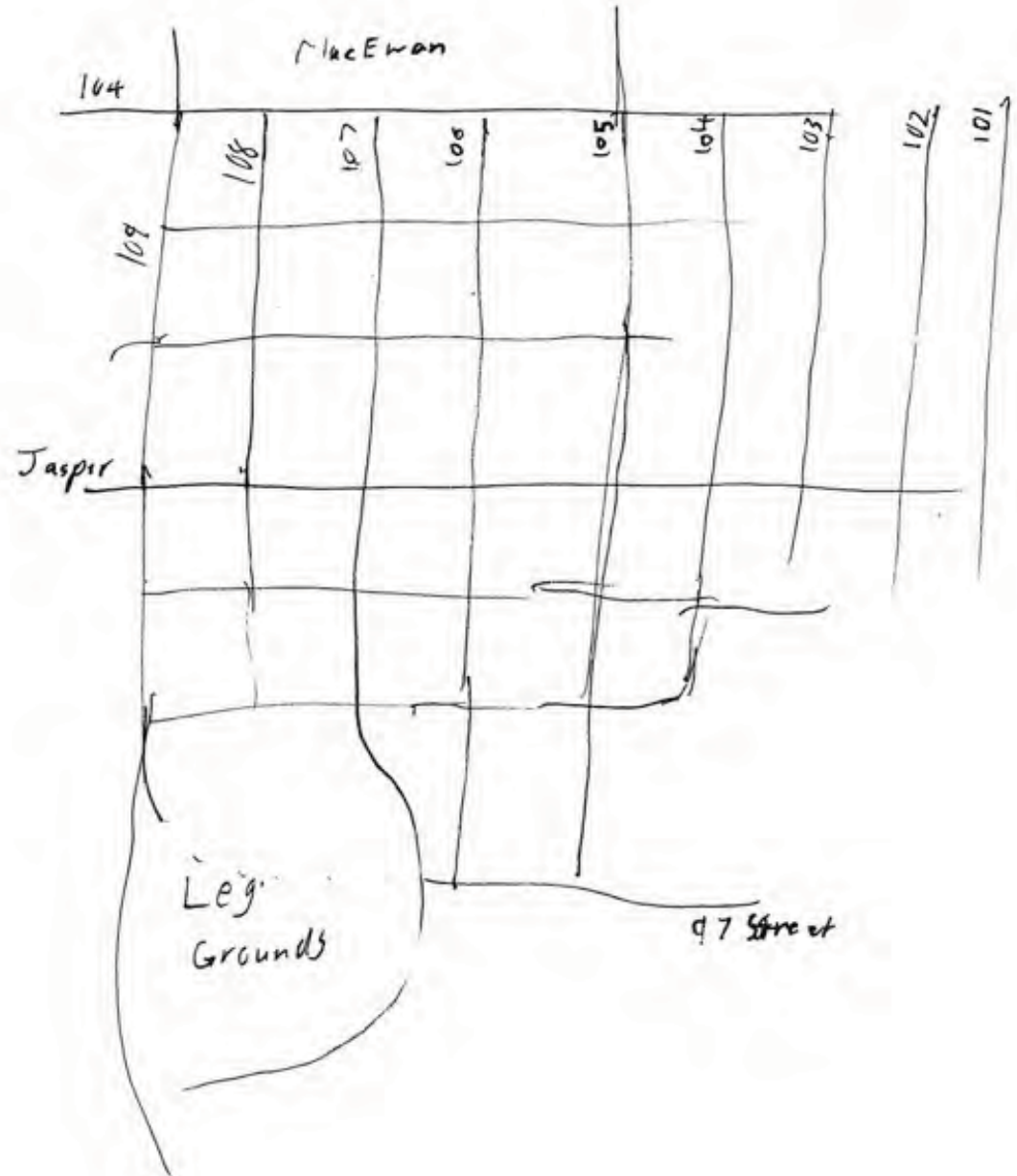
The grid, once learned, is easy to use and successful for the most part – although there are some streets that still get used in tiny cul-de-sacs 10 miles out of the city centre (118th Street in Rutherford, South West Edmonton for example).

There are a few places where the naming seems arbitrary and potentially confusing to the visitor, particularly with the use of the suffix 'a', 'b', and in some cases changing name abruptly, such as 104th Avenue becoming 103a Avenue.

Addressing is slightly harder to figure out, but again once the system is learned it makes sense.

Many intersections look similar increasing the reliance on street name signs.

Few mid-block crossings coupled with the wide streets, particularly downtown, force the pedestrian to stick to the grid edges which limits strolling.



Background observations

Urban form

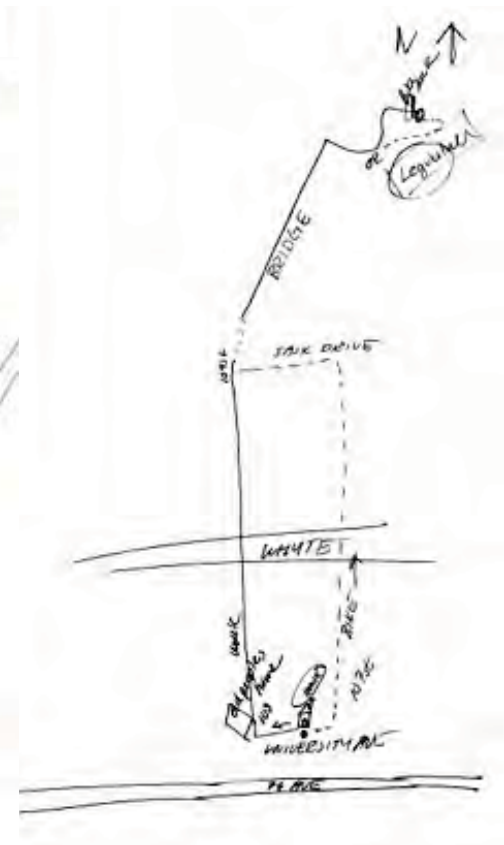
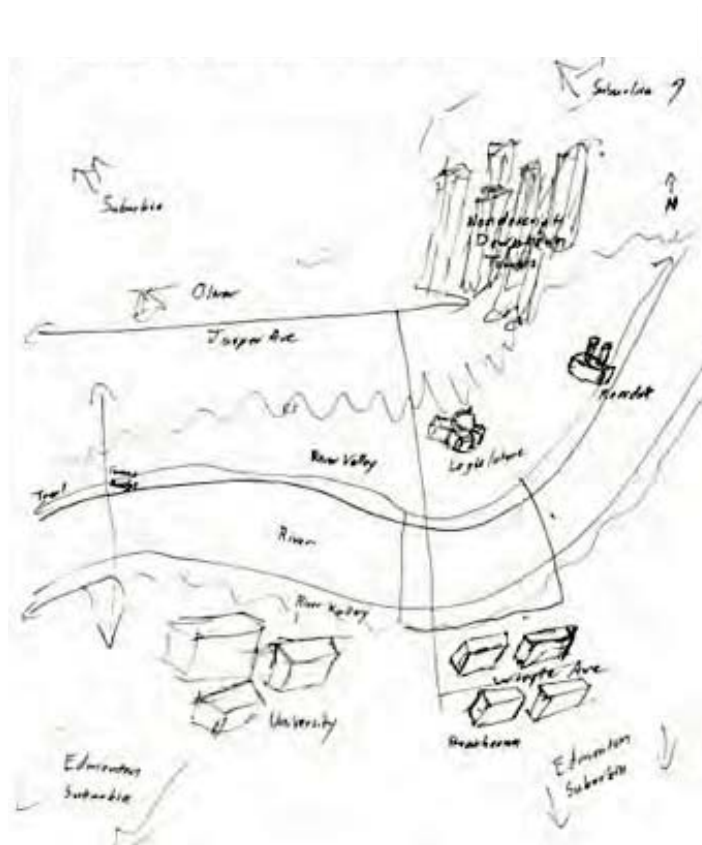
Mental maps

Mental maps vary as much as the population so shouldn't be given too much scientific weight. Bias can also come from how confident the person is at drawing and how good they are at translating spatial references into a 2D drawing. For this reason however they often take on a simplistic form, elevating important references to the fore, such as key landmarks and memorable routes.

The maps collected on the initial visit raised the following observations:

- Focus on safe, linear routes
- The River Valley didn't feature that prominently
- The grid, key avenues and clustered centres / landmarks featured prominently
- One or two maps simply described a linear route between home and work with nothing else linked into that route

These results confirmed the observations on urban form, particularly the lack of clear nodes or dominant paths and the reliance on the grid.



Background observations

Weather

Temperatures can vary dramatically from anything between -30°C to over +30°C, but rarely last long at these extremes and the weather does not deter Edmontonians from moving about the city. However winter is clearly an important issue since it has its own strategy report.

Published in 2012/13, it proposes ideas for practical solutions to make the cold months easier and more enjoyable.

One key theme is about co-ordinating management of services, such as ensuring snow clearance for vehicles does not affect other modes such as cycling and walking.

The implication for wayfinding is the need for routes and systems that are accessible year round.

The seasonal variations do mean that any permanent wayfinding information needs to be relevant and robust for year round use, leaving more dynamic information, such as digital and print media to be used for transient information needs such as for festivals and events.



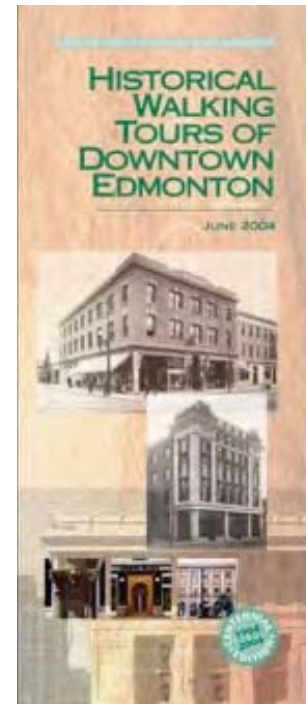
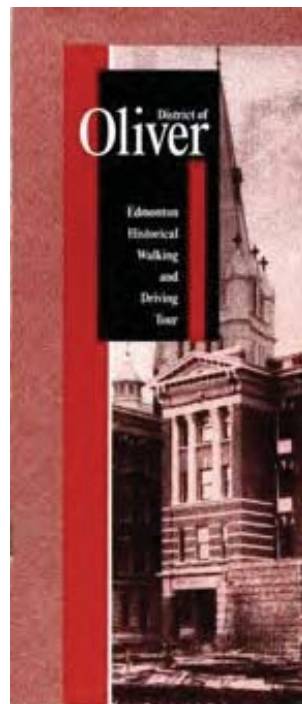
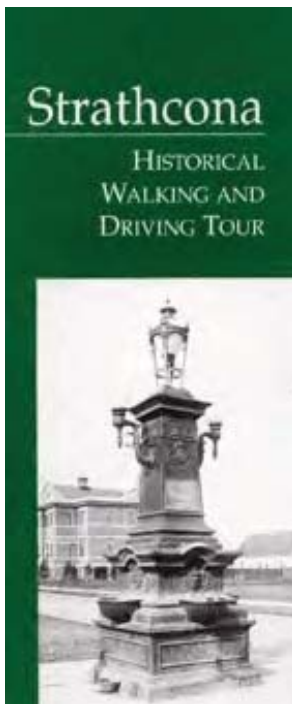
Background observations

Pictures of the city

Heritage

A rich history, but a little hard to find unless you know where to look.

Excellent guides are now out of print, leaving a range of plaques and interpretive boards to be discovered.



Background observations

Pictures of the City

Streetlife

Downtown Edmonton appears quiet after the working day and may discourage visitors from going out. By contrast, they might catch the 104th Street market on Jasper Avenue which draws thousands each Saturday.

With more residents to draw upon, Strathcona offers a bustling nightlife and is the focus for younger Edmontonians at the weekend. Similarly the old neighbourhood of 124th Street provides an eclectic mix of dining, bars and street markets that would be attractive to many visitors - if they could find it.



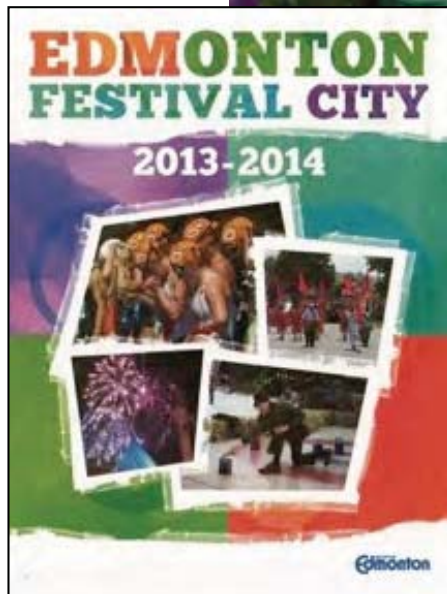
Background observations

Pictures of the City

Festival City

Edmonton has over 30 major festivals each year, including the largest and oldest Fringe festival in North America, making it an important centre not just for Alberta but for Canada.

Wayfinding for visitors will need to support a diverse audience and themes but most importantly sit as a solid reference point and work with temporary wayfinding information and marketing. There is also opportunity to create a suite of printed and digital themed maps that tie into the permanent scheme.



Background observations

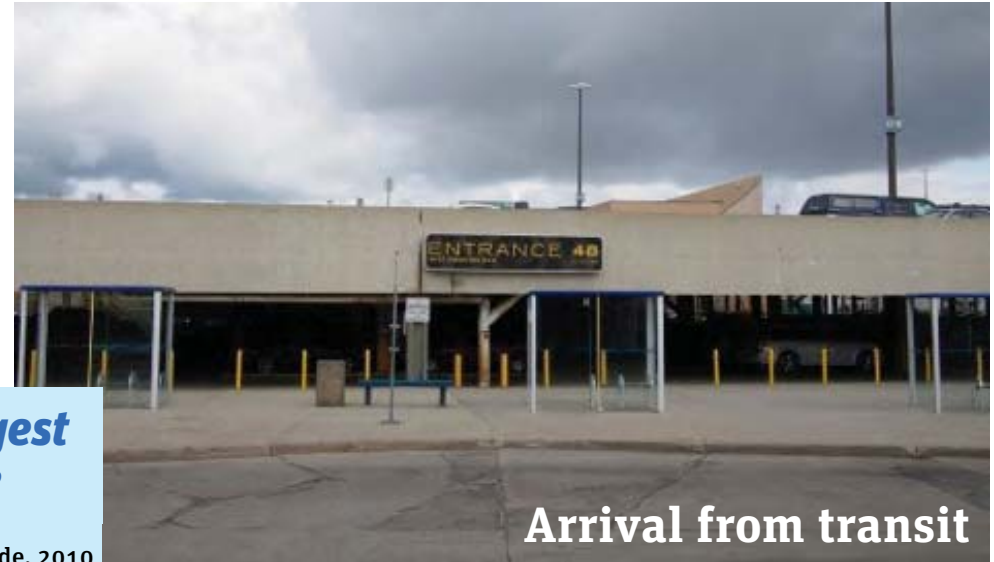
Pictures of the City

West Edmonton Mall (WEM)

As one of the largest malls in the world, WEM even has its own hotel so you really can spend a weekend and never leave.

Although the City of Edmonton is pouring money into Downtown developments and wanting to attract visitors, they will still want to visit the WEM. However for people without a car, its a slow bus journey away from downtown to an uninspiring Transit Centre.

A goal of wayfinding should be to make trips to the mall easier while balancing its attractions with others around the city.



“The city’s biggest attraction.”

Moon Guide, 2010

Arrival from transit



Section 2

Existing Information



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Existing information

The review of existing information is a rapid audit of visible and easily found examples of various sorts of information that a visitor might turn to as part of wayfinding and trip planning.

Increasingly, information is available in physical and digital formats that offer static and dynamic guidance. The physical environment will contain thousands of individual pieces of information, much of which we don't register, particularly if we are local to the area. A visitor or someone unfamiliar with the area or their mode of transportation, sees a place differently. When lost scraps of information can become important and problems are amplified.

Existing information

Signage

Signage for walking

Aside from a small selection of identity signs, heritage plaques, the city has very little street signage, which is unusual.

Pedestrian wayfinding is almost exclusively restricted to within shopping malls and offices. This means that as indicated in the previous section, street name signs are particularly important to support the city's interrupted street grid and to destinations, when addresses are known.

Street name signs could be enhanced to create local identity and with additional directional elements as part of city wayfinding.



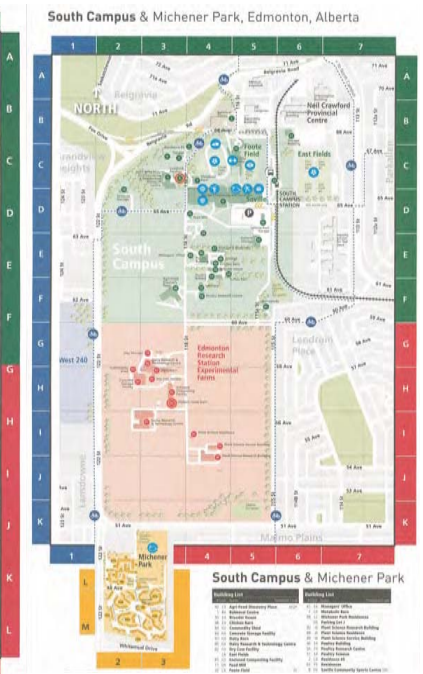
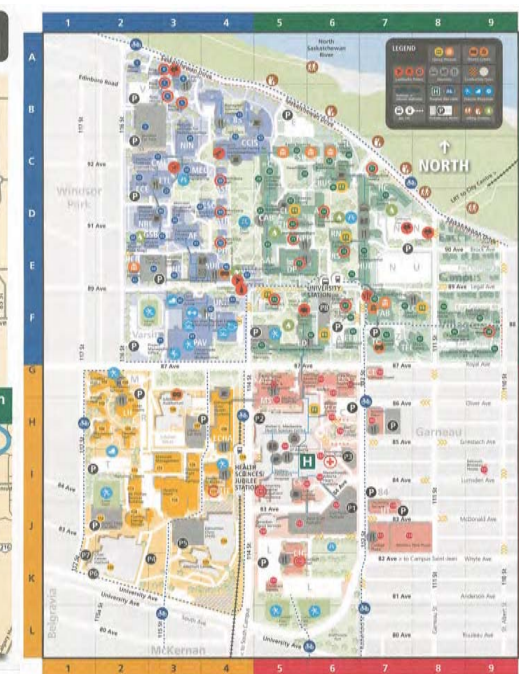
Existing information

Signage

University of Alberta

The University of Alberta provides a useful comparison to the city in respect of wayfinding standards. The University campus has a consistent approach to street maps, signs and a smart phone app using a colour coded system to identify areas.

While the map could be argued to be rather complex as a result of a liberal set of icons, it provides a useful example of how a map can provide a cohesive image of a place.



Existing information

Signage

Signage for vehicles

The majority of public signage seen in the city is related to the management and guidance of traffic.

The most obvious vehicular signage around Downtown is for parking regulation. There is also the 'Park in the Heart' logo which is from a now apparently defunct campaign to attract drivers into the centre.

General guide signing provides street directions, emphasising the need to know the address of destinations. Where destination signs are provided they are inconsistent and separate from one another which creates a confusing range of information types, locations and terminology for drivers.



Existing information

Information environment

There is a feeling of less official public signage in the city of Edmonton than in many cities of comparable size. There are however plenty of other pieces of information in the street.

The sides of kiosks on Jasper Avenue are particular targets for local fly posters while the usual collection of free papers and street furniture is seen across the city.

This provides a background of visual stimulus, both good and bad. Alongside commercial signage and the built environment any new system would compete for attention.

The wide streets and busy visual environment suggest that in downtown at least, the prominence of information points would be an important consideration. Whereas in neighbourhoods a more sympathetic approach to street furniture might be appropriate to the character of the area, in downtown contemporary and striking designs might offer the chance to develop a new icon as part of the emerging city identity.



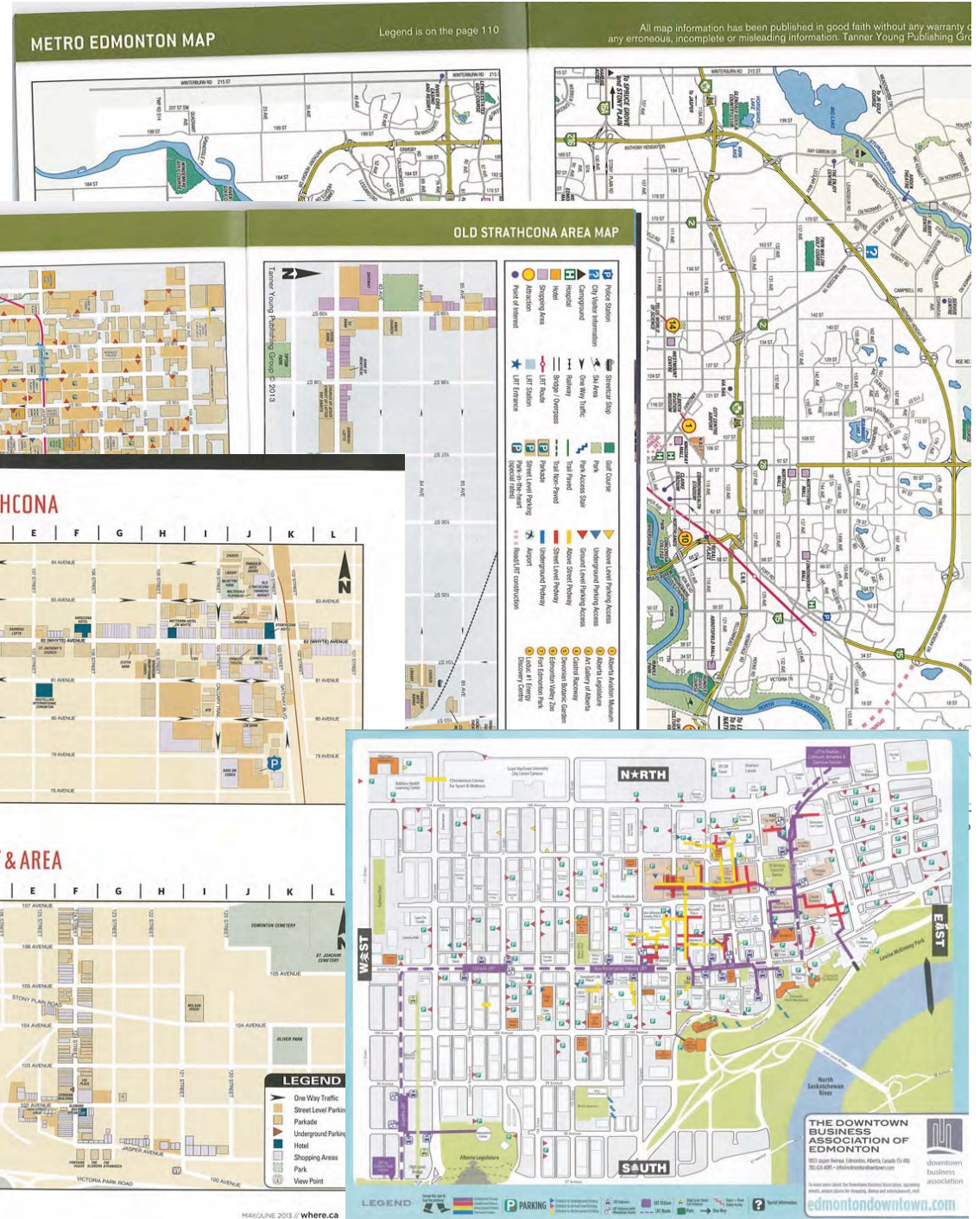
Existing information

City maps

City maps

There are various maps available in the city. There is no prevailing way in which it is shown, either in respect of agreed boundaries or common features (other than geography). The result is that any two maps can be difficult to relate to one another without study, which is not always easy or convenient.

The maps could also benefit from specialist cartographic design. A design project could produce a series of maps at different scales that better balance hierarchical order, content and character making city maps more intuitive and easily interpreted.



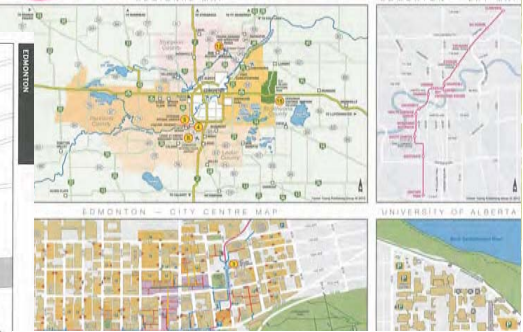
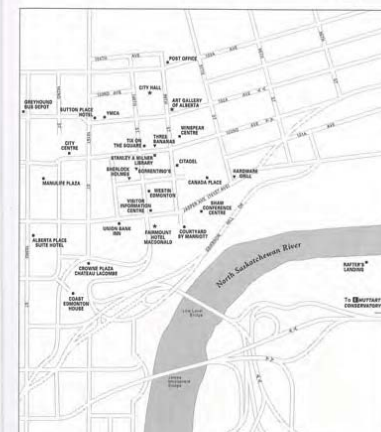
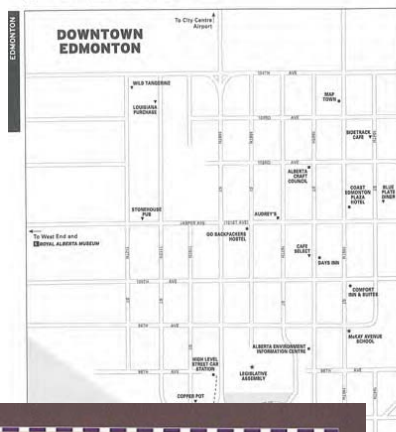
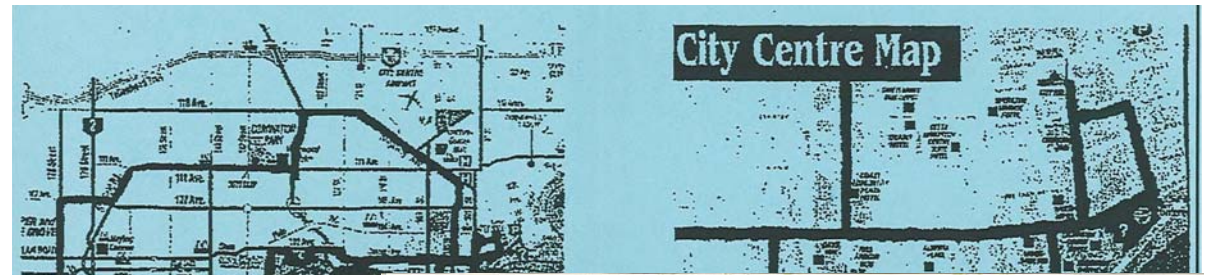
Existing information

Printed information

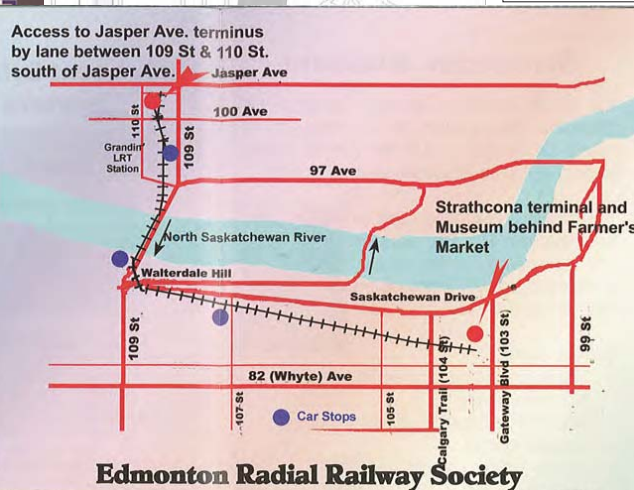
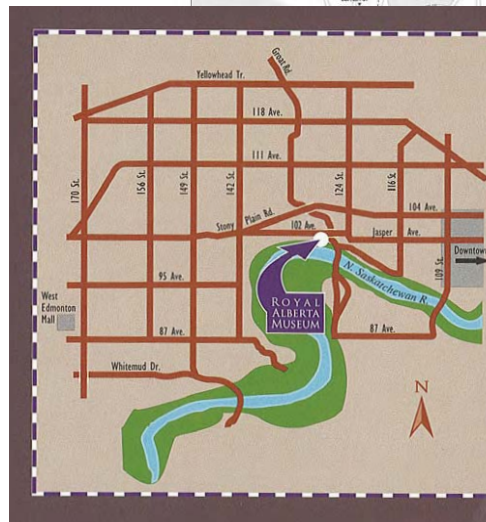
Other printed information

The City map appears to be used regularly as a base by other organizations. The quality of these reproductions naturally varies depending on the skills and resources of the third parties. A central map resource that could be easily edited directly, or could be produced centrally, would benefit these groups and events and maintain a consistent quality and easily understood information.

Old Strathcona provides a quality and idiosyncratic map that suits its personality. Any central map resource would need to allow for local identity.



Location	Address	# of Stalls
Claremont LRT Station	48 Street & 139 Avenue	1372 stalls
Strathcona LRT Station	62 Street & 129 Avenue	780 stalls
Stadium LRT Station	84 Street & 111 Avenue	468 stalls
Stony City Lot	84 Street & 81 Avenue	300 stalls
Century Park LRT Station	111 Street & 23 Avenue	1200 stalls
Midtown Transit Centre	17 Street & 46 Avenue	200 stalls
Lewis Farms Transit Centre	87 Avenue & 197 Street	600 stalls
East-Edmonton Transit Centre	97 Street & 129 Avenue	200 stalls



Existing information

Digital information

Digital information

Digital information is growing exponentially and with it, the ability to access wayfinding and destination information on the move. Digital applications whether on desktop computers, tablets, smartphones or GPS is an essential consideration for a long-term city wayfinding strategy.

Amongst a mass of third party blogs and sites, the most visited website available are www.travelalberta.com, www.edmonton.com and www.edmonton.ca.

Navigating these sites to find relevant information requires visitors to follow links which requires some patience. As part of a user-centred wayfinding strategy, digital information could be edited in a way that provides progressive disclosure for the visitor, prioritizing the basics and allowing for further interrogation if required to help them find attractions and options for how to get there.

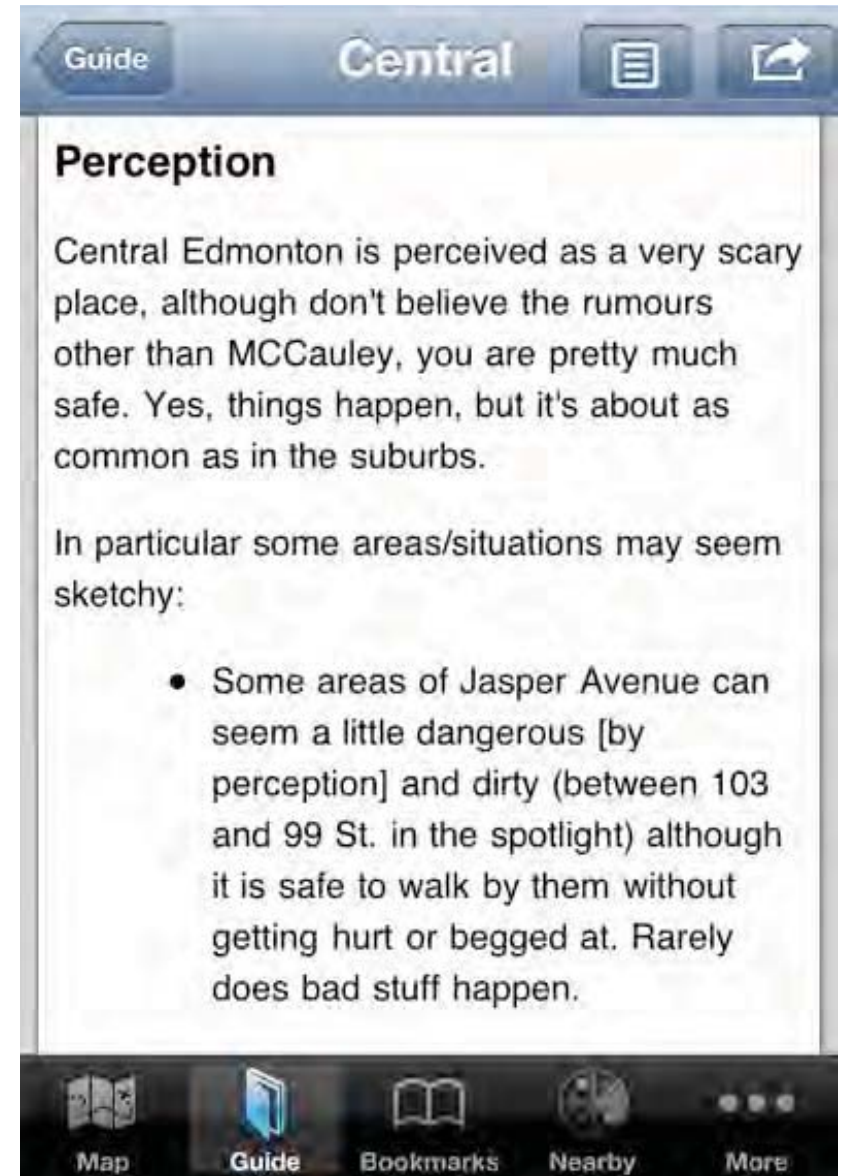
Aside from the generic city apps such as Yelp, few Edmonton smartphone wayfinding apps were found. Those that exist are for a particular need, such as a festival or University of Alberta. There is a positive opportunity to create a specific City of Edmonton app as a beacon for visitor information.



Existing information

Digital information

Most apps are launched for specific events and of limited value at other times. More general apps are of variable quality and the copy does not always paint a positive picture of the city.



Existing information

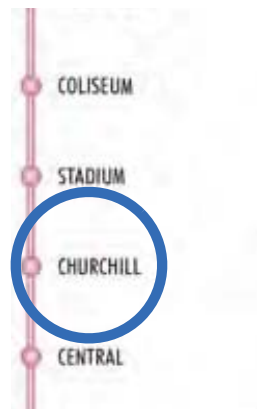
Naming

Places develop nicknames and retain legacy ones in all cities. However, while many are part of the character of the city, some can be confusing to the visitor.

For example, 104th Street chooses to use the 'local' terminology of '4th Street'. If as an unfamiliar visitor you type in '4th Street' to a web map it naturally locates a street some 15 miles away.

A more specific example is event space. Once the Arena is built there will be the Rexall Arena at Coliseum, the Arena Downtown and The Stadium Downtown. The three stadiums will be physically quite close in terms of transit stops, leading to a significant chance of a mistake.

As part of any wayfinding strategy it will be an important foundation task to agree on the names of places and destinations for common use across the system. This would inform the signage and maps to be produced and could extend to other project planning such as the planned LRT extension and City Centre Redevelopment.



Existing information

River Valley

The River Valley and its associated parks (RVP) are a major asset by any city's standards, but it's not entirely clear how to get into it, or more importantly whether it is easy to get out of again. This may put people off venturing from the urban 'safety' into the green unknown.

The RVP also creates a very significant division between the downtown and the older centre and neighbourhoods around Strathcona and the University. The physicality of the valley suggests that access is more difficult than perhaps it is with the various transit, pedestrian and cycle bridges that exist.

Trailhead signage and park wayfinding is part of a parallel project. A city-wide strategy will need to ensure it can provide a 'hand-over' for the public that ensures the RVP is a seam between the north and south parts of the city as well as a leisure destination. This may be possible simply by providing city maps at trailheads in cooperation with the parks managers.

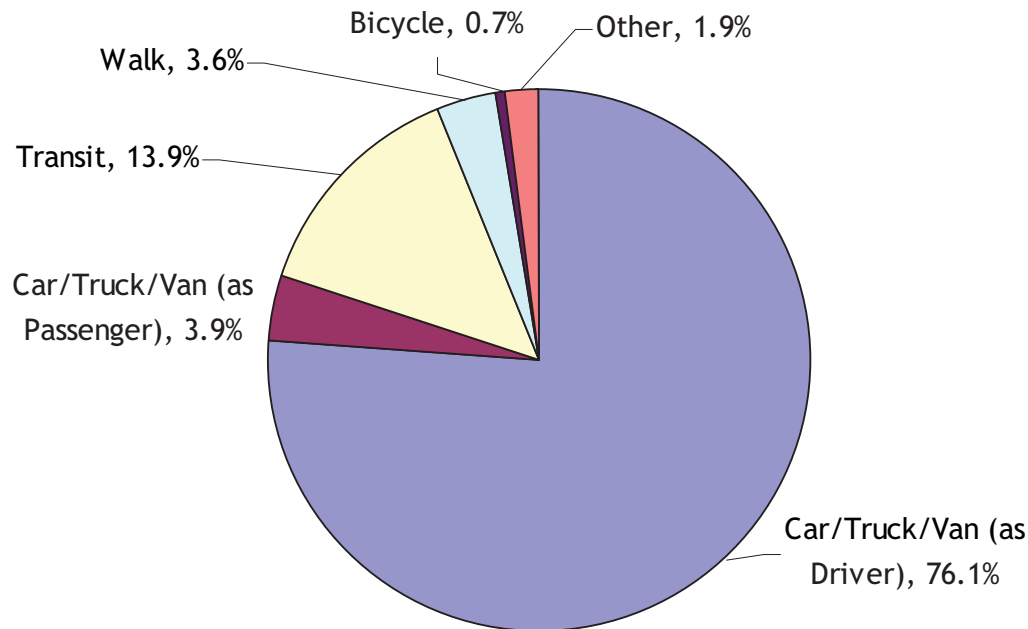


A blue bicycle is the central focus, parked outdoors. It has a black saddle, a black helmet hanging from the handlebars, and a black mesh basket on the front containing several small green plants. The frame is dark blue with 'speed' and 'DAHON' written on it. The background shows the lower legs of people in blue jeans and khaki pants. A blue semi-transparent banner is overlaid on the left side of the image.

Section 3

Transportation

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Transportation

The aim of the project is to define a way forwards for a pedestrian, map-based wayfinding system. This section looks broadly at transportation. Walking is a component of travel by all modes and a city wayfinding system should start from the premise that information will support the full journey.

This approach means that the resulting system will contain elements that can connect all modes and stages of any journey.

At a basic level, this will involve agreeing to the consistent use of names and symbols to provides continuity between modes. More advanced guidance will provide a methodology for progressively disclosing destinations and detail along a journey to reduce information load and handover between one stage of a journey and another, possibly using different modes.

This journey focus clearly requires the partners who are responsible for the different modes and information interfaces to work together to a common user-centred system. This can be achieved by planning a hierarchical set of information types and placement rules that each partner can provide information that links with its neighbour and that provides users with just enough to make decisions, but not so much that the information becomes too complicated, contradictory or difficult to use.

Transportation

Driving

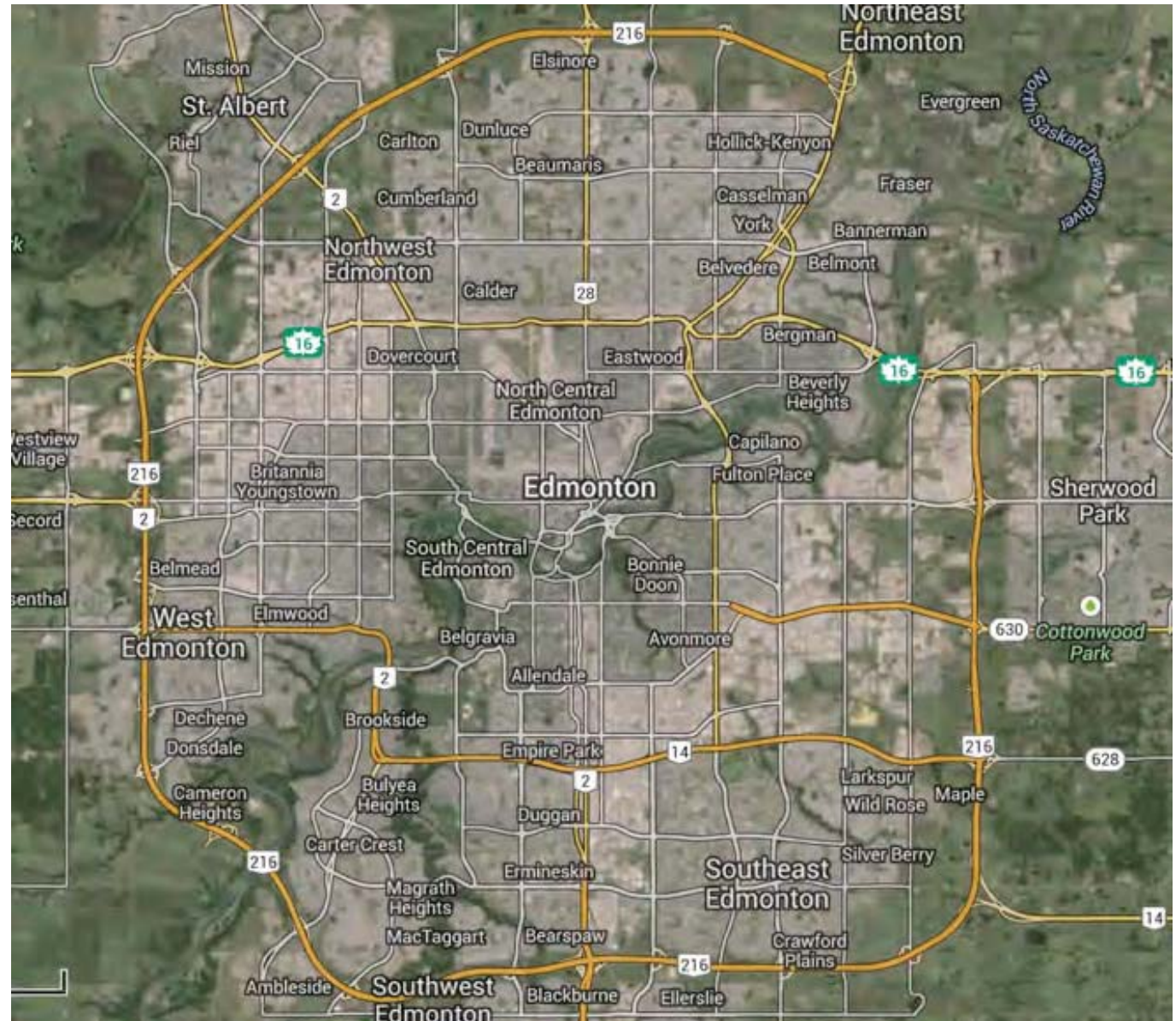
The City is defined by the boundary created by Anthony Henday Drive, while apart from a planned link in the north east, circles the city.

The City sits as a gateway for major commercial trucking and vehicle movements from the north. Logging, aggregates and increasingly oil related traffic is a major challenge for highway management.

The Yellowhead Highway (Highway 16) cuts across the north of the city and is a major artery but also important visitor access to the Rockies. Gateway Boulevard provides the southern axis which is the main route to Edmonton airport and Calgary, some 300km to the south.

Entering the city by car is confusing as the city is spread over a wide area and there are many exits. Alberta is generally seen as a leader in Canada for highway standards and the province's destination-based guide signing standards are good by any measure.

A project to extend these standards to lower category roads, supported by gateway identifiers and parking guidance signage could do much to provide visitors with essential reassurance.



Transportation

Parking

The City is keen to help people broaden their transportation choices. The spread of the city, weather and lifestyles mean that driving will remain the primary means of travel for the foreseeable future but many shorter journeys and new patterns of living suggest there is a willingness to explore other options.

Wayfinding is part of the toolkit available to city authorities to help people consider transit, cycling or walking.

With 85 parking facilities and over 45,000 parking stalls in Downtown, it's relatively easy to park. But anecdotal evidence suggests it is expensive and hard to find.

No walking information was found at parking lots on the initial research trip and there are numerous opportunities to encourage people to 'park once and walk'. Neighbourhood parking lots are also opportunities for expanding knowledge of the local areas.

Guide signs and other information for drivers could help manage parking demand and assist with specific needs such as event parking.



Transportation Transit

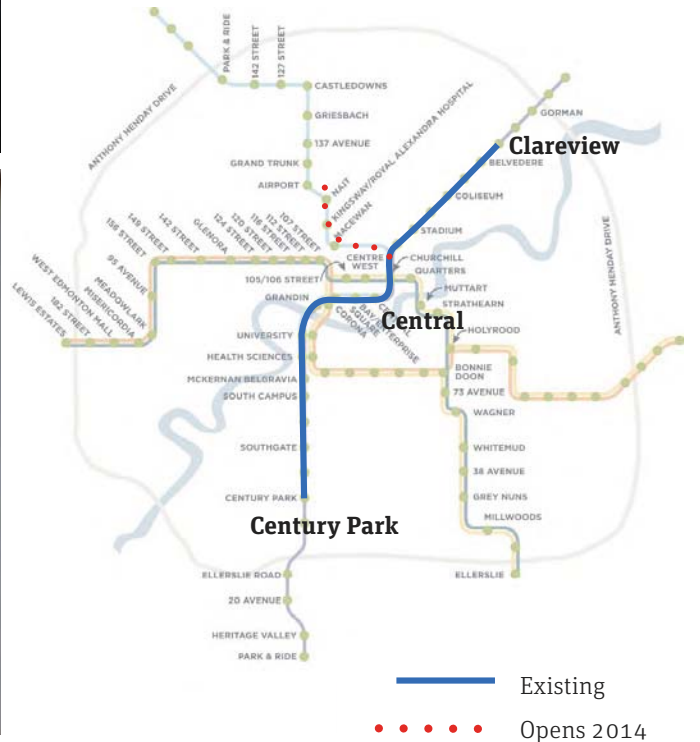
ETS runs buses, light rail and community transit services across the city. Services are clean and efficient while fares are relatively affordable.

Students form a significant portion of riders, encouraged by the free U-Pass scheme, doubling ridership during term times.

While the LRT service is relatively small, there are plans for significant expansion. This will require a more integrated and robust information system, connections on street to other modes and information to encourage mode shift. There is also a potential to reduce parking in Downtown.

The silver and blue is highly recognizable and its prevalent use means it has become the most prominent identity on the streets of Edmonton.

While not fully resolved, the identity creates a strong foundation from which to develop and raise awareness of the more frequent, key routes that the visitor may use to get around the city.



Transportation

Transit visibility

Bus stops are reasonably easy to locate as they need to exist on-street as a stand alone product. LRT access on the other hand is inconsistently signed, sometimes losing the brand (where it shares pedway access, such as the entrance to the Winspear Centre) and sometimes looking like an emergency exit or subway, particularly the subterranean LRT stations.

There is a quick win opportunity here to establish an LRT beacon to support these stations.



Transportation

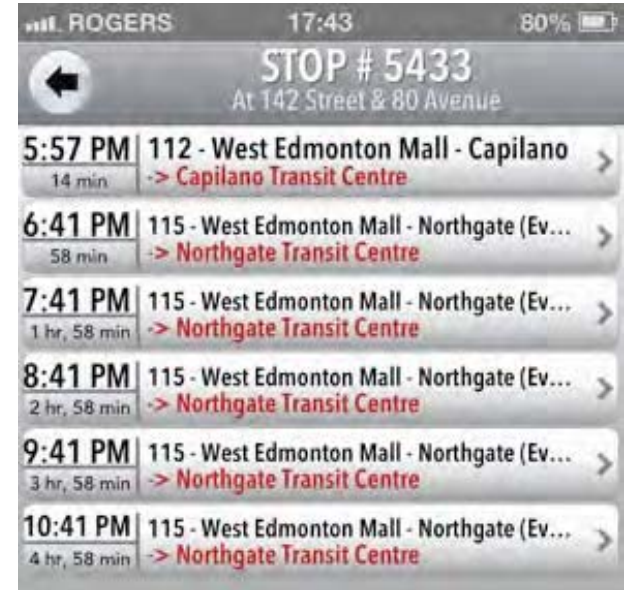
Transit communications

ETS provides lots of information but it is not always prioritised or easy to understand. For example, does a 'Future Bus Stop' need any sign at all if it then requires a second sign to explain that it is not a bus stop?

Many bus stops have a stop code only with no other information, relying on personal handheld devices such as smartphones to obtain information. When information is available it is often simply a printed schedule stuck into a stop noticeboard, as opposed to a custom designed schedule for that stop.

The new App is comprehensive and accurate but understanding how to use it takes some expertise and figuring out, particularly when it comes to which side of the road you need to be on for the timetable you are viewing.

Bus maps are hard to understand and require too much interrogation. The fact that there is a section explaining how to use the schedules indicates that the schedules are not intuitive for the user.



Transportation

Transit communications

One area where many people struggle is understanding bus schedules. Timetables are complex to prepare and use. People increasingly expect information be presented in a customized format - such as stop specific timetables posted on stop poles.

Maps and information presented in a simplified format for people and located on the bus stops or shelters not only provides information where people need it but also advertises the service. Maps and information that links transit trips with walking or biking around the city helps encourage transit use for more trips currently considered car only.



ROUTE 35 How to Read a Schedule

All route brochures have a bus schedule, map, and a list of bus stops located along the route. Timing points are read in columns and rows. To find the estimated times that a bus stops at a particular location, read down the column under the location. To find the estimated times that a particular bus will stop at other locations, read across the row (left to right). Reading across the row tells you the time required for the bus to travel between timing points. For example, to be at Century Park for 9:38 a.m. you must board the bus at Leger at 9:18 a.m.

The bold line indicates when the route starts a return trip.

Route Number	Destinations: Century Park to Leger				Destinations: Leger to Century Park			
	Century Park TC	Rabbit Hill Rd 23 Av	Summit Dr Blvd	Leger TC	Leger TC	Summit Dr Blvd	Rabbit Hill Rd 23 Av	Century Park TC
	A	B	C	D	D	C	B	A
	9:46	9:53	10:01	10:07	9:18	9:23	9:31	9:38 L
	10:16	10:23	10:31	10:37	9:48	9:53	10:01	10:08 L
	10:46	10:53	11:01	11:07	10:18	10:23	10:31	10:38 L
	11:16	11:23	11:31	11:37	10:48	10:53	11:01	11:08 L
	11:46	11:53	12:01	12:07	11:18	11:23	11:31	11:38 L
	12:16	12:23	12:31	12:37	11:48	11:53	12:01	12:08 L
	12:46	12:53	1:01	1:07	12:18	12:23	12:31	12:38 L
	1:16	1:23	1:31	1:37	1:18	1:23	1:31	1:38 L
	1:46	1:53	2:01	2:07	1:48	1:53	2:01	2:08 L
	2:16	2:23	2:31	2:37	2:18	2:23	2:31	2:38 L
	2:46	2:53	3:01	3:07	2:48	2:53	3:01	3:08 L
	3:16	3:23	3:31	3:37	3:18	3:23	3:31	3:38 L
	3:46	3:53	4:01	4:07	3:48	3:53	4:01	4:08 L
	4:16	4:23	4:31	4:37	4:18	4:23	4:31	4:38 L
	4:46	4:53	5:01	5:07	4:48	4:53	5:01	5:08 L
	5:16	5:23	5:31	5:37	5:18	5:23	5:31	5:38 L
	5:46	5:53	6:01	6:07	5:48	5:53	6:01	6:08 L

Timing points are select bus stops along the route that correspond to times listed under each location. The letter in the circles can be found on the route map to pinpoint the location. For other stops along the route, check the "Bus Stop Numbers" page.

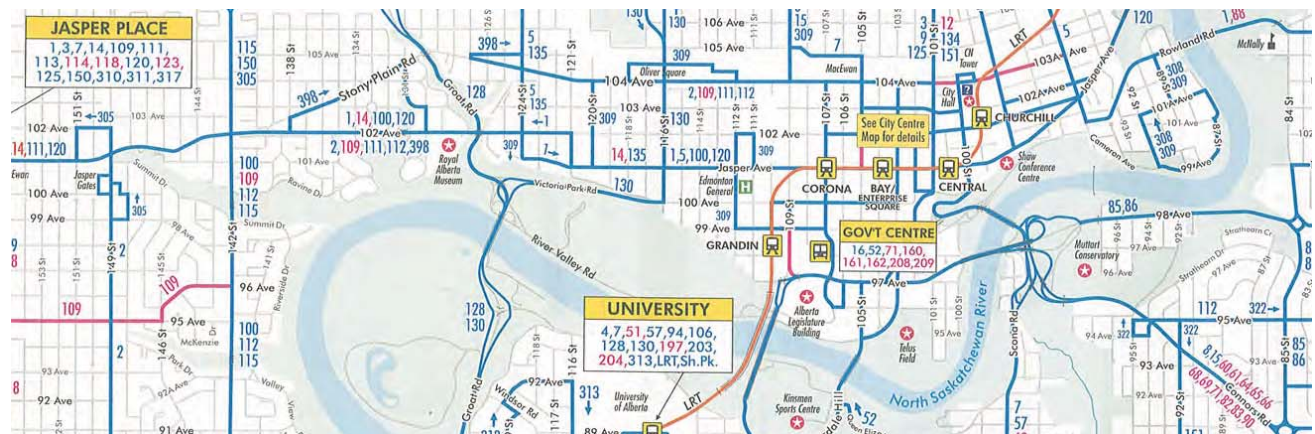
Read down the column to find the time your bus leaves your location.

Read across the row to find the time your bus arrives at the next timing point.

Bold Text represents PM. time.

ROUTE 2 Bus Stop Numbers Dial 780-496-1600, enter your bus stop number.

Destinations: Clareview to Lessard			Destinations: Lessard to Clareview		
St.	Ave.	Dir./Bus Stop	St.	Ave.	Dir./Bus Stop
A	102 Ave	Transit Ctr	C	102 St	Callaghan Rd
B	102 Ave	Transit Ctr	F	102 St	Callaghan Rd
C	102 Ave	Transit Ctr	H	102 St	Callaghan Rd
D	102 Ave	Transit Ctr	I	102 St	Callaghan Rd
E	102 Ave	Transit Ctr	J	102 St	Callaghan Rd
F	102 Ave	Transit Ctr	K	102 St	Callaghan Rd
G	102 Ave	Transit Ctr	L	102 St	Callaghan Rd



Transportation

Airport connections

Edmonton Airport is the fifth busiest airport in Canada, serving over 6.6 million passengers in 2012 and is a major arrival point for visitors. However getting from the airport downtown is complicated without renting a car or accepting a \$60 cab fare.

A relatively cheap transit option does exist but it requires passengers to transfer from an express bus to LRT at Century Park. This transfer is not long but a physical struggle with luggage. It also requires passengers to pay two fares as the services are not integrated. The physical effort and fares are not however the main hurdle to visitors.

Information about transit options was poorly located and requires asking at the service desk in order to fully understand the service. The airport stop is also rather difficult to see as it is on an island with few directions. Those directions that are found are isolated and imprecise.

At Century Park, the 747 bus stop on the busy loop is more visible by the presence of travellers with luggage than by any identifying signage.

There is also a shuttle that may work for visitors, but the cost is higher than the 747/LRT option and it appears to be a hotel service only.



Route 747				Weekday, Saturday & Sunday			
Century Park to Let's Airport		Let's Airport to Century Park		FARES			
Leave Century Park	Arrive Let's Airport	Leave Let's Airport	Arrive Century Park	One-way trip - \$5, or two Adult ETS Tickets Monthly pass - \$100 No transfer to regular ETS service (bus or LRT).			
4:10	4:34	8:34	8:58	LUGGAGE			
5:00	5:24	9:00	9:24	Here are a few things to note when travelling with your luggage to ensure a safe and comfortable experience:			
6:00	6:24	9:30	9:54	- First come/first served. Passengers already on board with their luggage are not required to move their luggage to accommodate additional passengers. However, please be considerate, and when possible, put personal belongings on your lap to accommodate additional passengers.			
6:30	6:54	9:45	10:09	- All passenger luggage must be placed in the luggage racks or on the floor in front of the seat. No passenger luggage is allowed in the aisle.			
7:00	7:24	10:00	10:24	- Passengers are responsible for handling their own luggage. Bus operators are not required to assist passengers with luggage movement.			
7:30	7:54	10:15	10:39	- Provincial requirements dictate that the bus operator will not move the bus if there is passenger luggage in the aisle.			
8:00	8:24	10:30	10:54	- Edmonton Transit System is not responsible for lost or damaged passenger luggage. Call 780-496-1022 for ETS Lost & Found.			
8:30	8:54	10:45	11:09	- Should you notice a suspicious package at Century Park Transit Centre or on the bus please notify the bus operator or call Transit Watch at 780-442-4900.			
9:00	9:24	11:00	11:24	*Passenger luggage includes suitcases, backpacks, boxes, bags and any other carrying device for the transport of personal belongings.			
10:00	10:24	11:30	11:54	For additional information, please go to www.edmonton.ca/transportation			
11:00	11:24	12:00	12:24				
12:00	12:24	12:30	12:54				
1:00	1:24	1:30	1:54				
2:00	2:24	2:30	2:54				
3:00	3:24	3:30	3:54				
3:30	3:54	4:00	4:24				
4:00	4:24	4:30	4:54				
4:30	4:54	5:00	5:24				
5:00	5:24	5:30	5:54				
5:30	5:54	6:00	6:24				
6:00	6:24	6:30	6:54				
6:30	6:54	7:00	7:24				
7:30	7:54	8:00	8:24				
8:30	8:54	9:00	9:24				
9:30	9:54	10:00	10:24				
10:30	10:54	11:00	11:24				
11:30	11:54	12:00	12:24				

Red text represents PM line. TC = Transit Centre. B = Bus equipped with Blue Bank. C = Community Bus. Subject to change without notice.

Route 747		Bus Stop Numbers		Call 780-496-1500, enter your bus stop number.	
Century Park - Edmonton International Airport - Century Park					
St.	Dir.	Dir.	Bus Stop	St.	Dir.
A	Let's Airport	Century Park	St. 101A		



Transportation

Cycling

Cycling is an important part of city transportation policy and a sector seeing steady growth. Research carried out in 2005/06 by the City of Edmonton showed that 70% of cycle trips are for recreational purposes. But as the infrastructure program begins to open up major routes across the city, people are considering cycling for utility journeys as well as leisure.

With this increase in use the traveling public are turning their information demands to what they need to bike. Many use maps as a way to identify more pleasant or quieter options to the main road routes. Survey results show 69% used a map to plan their journey from home with 30% using printed maps on the road. While they will carry maps, the physical nature of cycling means people will look for navigational support on-street so they can avoid stopping and using a map.

Cyclists in the survey rated river crossings as most important which may also support earlier observations that the RVP is a barrier rather than a seam at present.

A city map in print, web and mobile formats with simple destination based wayfinding signs could significantly improve cycle accessibility.



Overcoming barriers

The 1998 'Go for Green' Walk and Roll program suggests that although the simple answer may be that Canadians prefer to drive, "a more comprehensive examination suggests that there are a number of formidable barriers that reduce and undermine choices for more active modes."

These barriers remain relevant today. A 2011 City of Edmonton study showed that while 51% of Edmontonians were willing to experiment with active modes, the barriers of travel time, flexibility for multiple stops or emergencies, weather, and stuff to carry were all mentioned as challenges to taking on active transportation on a regular basis.



Transportation

Cycling map

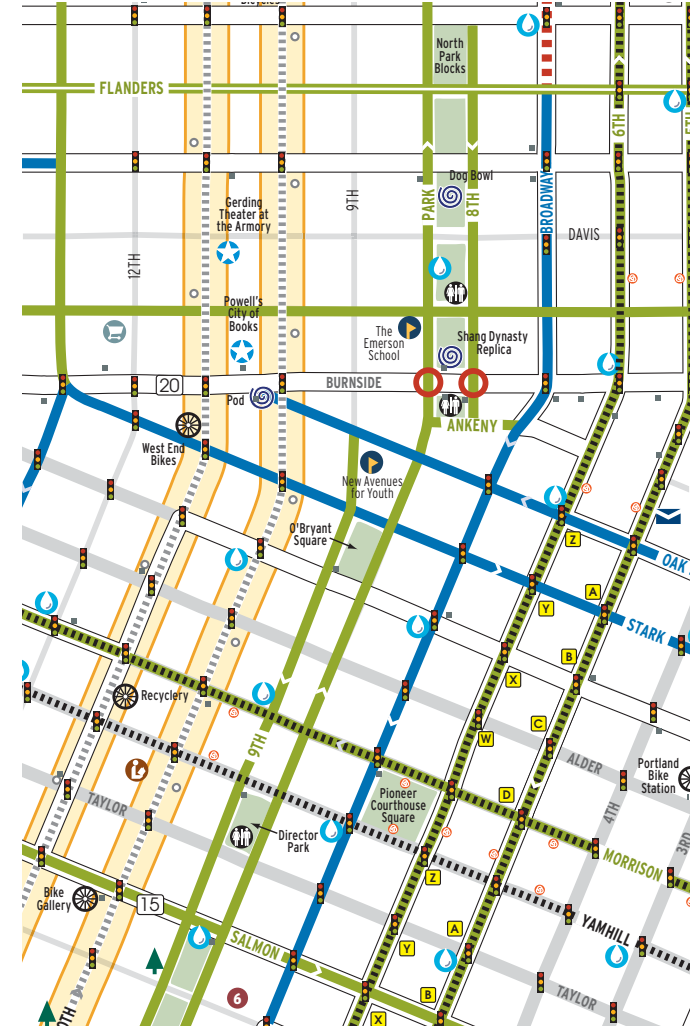
The City's cycling map could be described as a technical planning tool rather than a piece of public communication.

Derived directly from GIS it has a number of areas where improvement could be made compared to some leading cycling cities. Particular problems are likely to arise because the scale and text is too small to clearly follow the route or make decisions, and because there is very limited detail of use to a cyclist.

This is an asset that could be readily improved using the information in the GIS product but considered for public use.



Edmonton's online cycling map - derived directly from GIS output



Portland's online cycling map designed specifically to show a bikeable network at a useable scale and useful detail

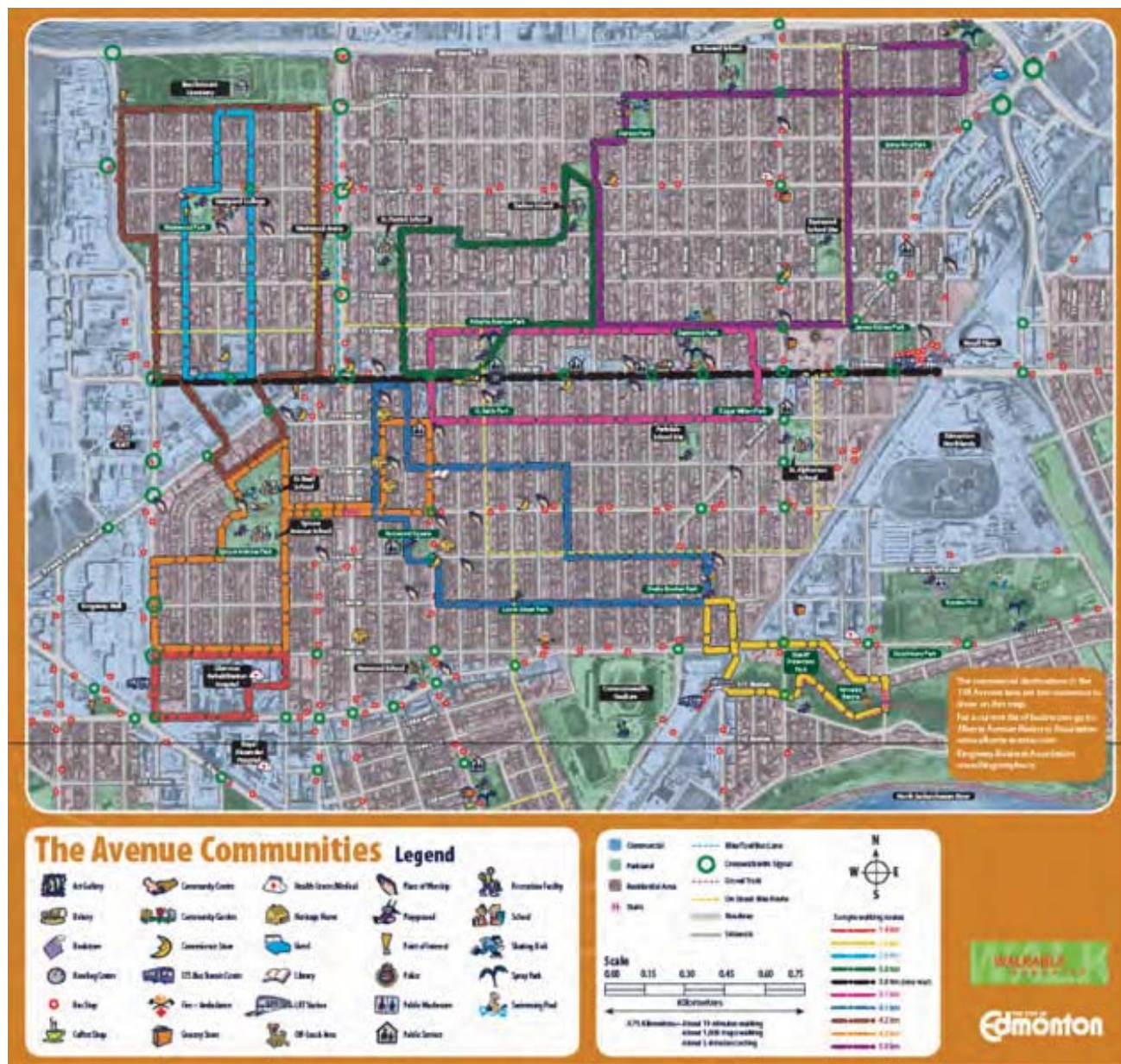
Transportation

Walking

The City of Edmonton has produced a 'Communities on Foot' series of walking maps. This is a great initiative focused mainly on encouraging local communities to walk in their area for health, neighbourhood safety and sense of place.

Limited research has been carried out so far, but there has been a 91% positive reaction with improved perception of what is available and respondents saying it encourages walking. This replicates the sort of level of support that useful walking information receives from an international experience of wayfinding projects.

The communities on foot project is a valuable foundation for both the case and approach to a city-wide pedestrian based wayfinding system.



Transportation

Walking: The Pedway

The Pedway is presented as a pedestrian network. But it is not a single type of infrastructure, such as the Toronto PATH system. The mixed collection of malls, subways and paths make the Pedway a difficult network to identify and to manage.

Part of the issue with a mix of infrastructures is that the privately managed internal parts operate under different rules to the public parts. This leads to sections being closed at certain times of day, differing arrangements for signing and identity and variable accessibility.

Knowledge of the Pedway appears to be similarly fragmented. It may be that the system exists more as a planning idea than a real network for people. However that is not to say that weather-protected and lit routes are not valuable to Edmontonians and visitors.

The wayfinding strategy offers the chance to put the Pedway into context of a walkable city, perhaps more clearly defining the permeability and shortcuts offered by access agreements through buildings without attempting to identify a separate network.



Transportation

Walking: Trails

Within the city, Edmonton has an excellent selection of well-maintained greenway trails. Generally however they are not communicated as the arterial connections that they form for longer-distance active transportation journeys.

Giving them status as access corridors by signing them would encourage and enable cycling, skating and longer walked trips along separated and interesting routes through the city.

As mentioned above for cycling, destination based signage offers the most value to people on journeys and there are many examples of cities and regions that have agreed planning guidance for strategic trail and cycle routes as part of a signed network connecting the whole city on foot or by bike.

This exercise could also form a useful part of a city promotional campaign by reinforcing quality of life messages about the capital city.



A photograph of a man on a city street. He is wearing a red baseball cap with 'CANADA' written on it, a dark jacket, and dark pants. He is looking down at a large, unfolded map he is holding in his hands. The background shows a city street with a building, a tree, and various street signs. A blue semi-transparent banner is overlaid on the top half of the image, containing the text 'Section 4 The Benefits of Wayfinding'.

Section 4

The Benefits of Wayfinding



Benefits of Wayfinding

This short section provides information to help explain a general and more specific case for investing in a wayfinding strategy.

Quantitative data on the return on investment from wayfinding projects is in its infancy, but there is real evidence that more legible places are improved in meaningful ways for people - whether visitors or residents.

Most importantly, wayfinding should enable and encourage people to get out in the city. Walking is an essential component of a liveable city and wayfinding is part of what helps people walk with confidence. Where wayfinding helps walking, many associated benefits flow from it.

Benefits of wayfinding

Strategic pressures

The Way We Move acknowledges that population growth could lead to more and longer car trips. Changes to the transportation mix will reduce congestion and improve city life.

1.15m

Forecast population in Edmonton
by 2040
(The Way We Move)

13%

Increase in population between
1994 and 2005
(The Way We Move)

32%

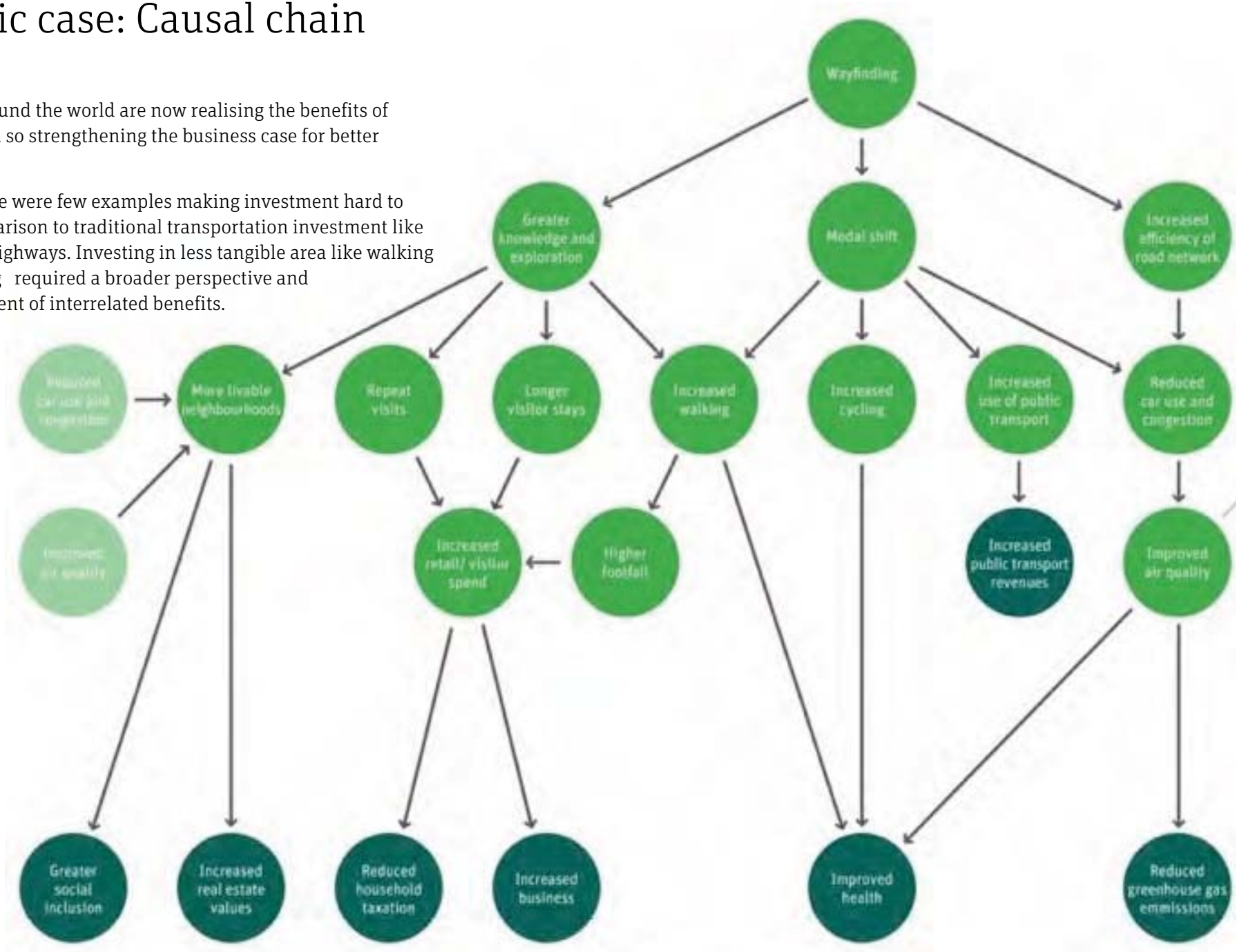
Increase in vehicle-kms between
1994 and 2005
(The Way We Move)

Benefits of wayfinding

Strategic case: Causal chain

Many cities around the world are now realising the benefits of wayfinding and so strengthening the business case for better information.

In the past there were few examples making investment hard to justify in comparison to traditional transportation investment like railroads and highways. Investing in less tangible area like walking and wayfinding required a broader perspective and acknowledgement of interrelated benefits.



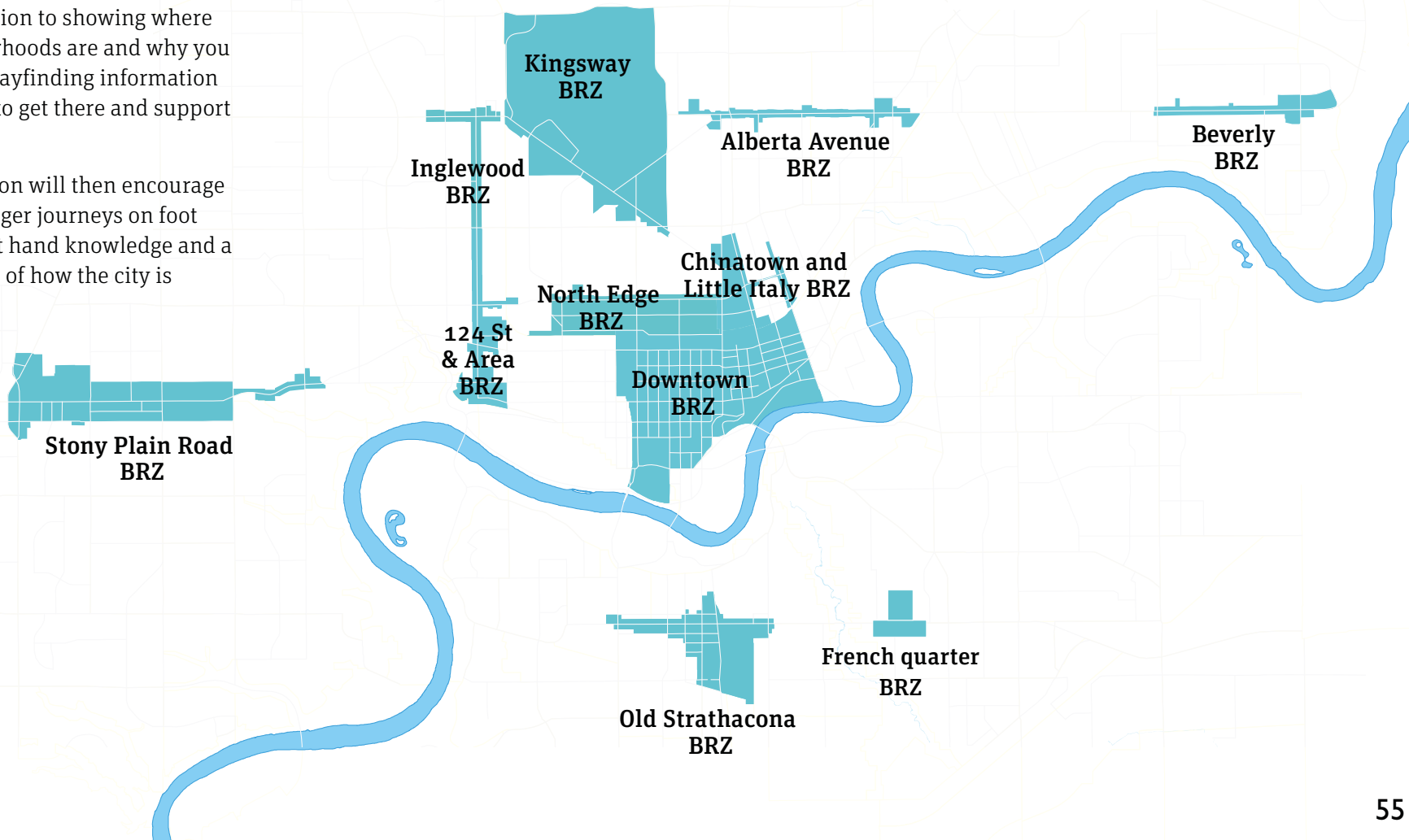
Benefits of wayfinding

Strategic case: Connected city

Providing a consistent image of the city in the form of a map that is used in multiple formats is only one part of the wayfinding solution.

Currently the user has to do a lot of work to figure out how to connect to the various neighbourhoods. In addition to showing where the interesting neighbourhoods are and why you might want to go there, wayfinding information should also tell you how to get there and support those journeys on route.

This connected information will then encourage confidence in making longer journeys on foot and by bike, building first hand knowledge and a real world understanding of how the city is arranged and connected.



Benefits of wayfinding

Particular case: Walking

Wayfinding is a multi-faceted problem in many cities. People use and expect information in many forms to help them in ways that meet personal preferences and needs. At the same time, cities are becoming more complex requiring more explanation. Wayfinding signage and information is also part of the communication that a city has with its residents and visitors and so is part of projects to establish destination identity.

Measuring the specific effect of wayfinding on these broad issues is very difficult but it is apparent that information is a growing part of a city's responsibilities.

In some areas the value of information is measurable. In the important area of modal shift, for instance, where a lack of awareness of options and opportunity is an immediate barrier to change.

City wayfinding projects often focus on helping people to find their way on foot as walking is essential to business, transit use and street activity.

Surveys in London indicated that aside from maintenance and cleaning, information was the main area where intervention could address motivation.



Benefits of wayfinding

Economics of walkability

\$34,000

Potential real estimate premiums for homes in areas of above average walkability

(CEOs for Cities, 2009)

42%

The increase in weekly expenditure of consumers who walked compared to those who drive.

(UK/Canada, Victoria Transport Policy Institute, 2010)

13%

Increase in population between 1994 and 2005

(The Way We Move)

4.9%

Average increase in rental yield for retail property in attractive and walkable areas

(London, UK by Buchanan Consultants for CAFE, 2007)

\$1,200

Average amount foreigners spend more than domestic visitors per visit

(Canadian Chamber of Commerce, 2013)

32%

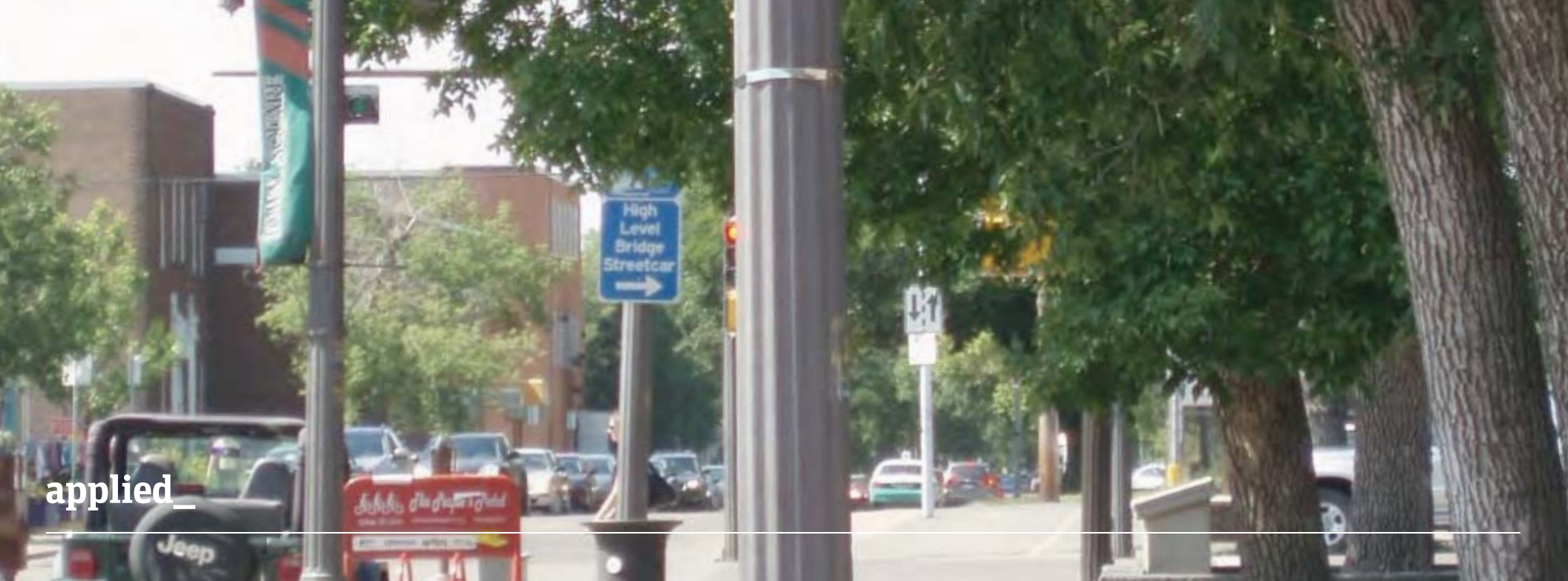
Increase in vehicle-kms between 1994 and 2005

(The Way We Move)



Section 5

Suggested Next Steps



applied_

Suggested Next Steps

The preceding sections describe the background, particular issues and case for developing a detailed wayfinding strategy for the City of Edmonton.

This section provides advice on how to move forward from the general agreement that there is action to be taken.

From a broad vision of how legibility could stitch together many other city policies, the suggested next steps provides a series of discrete project ideas, a model for managing the process and broad illustrative costs using experience from other city projects.

The suggested next steps is not intended to be a blueprint, but provides the recommended steps and heads up advice on what a systematic process should entail.

Suggested next steps

Edmonton: A Legible City

The idea of Edmonton as a 'legible city', expands beyond what could be achieved by signage and wayfinding. A Legible City project would influence the achievement of the strategic 'Ways' plans by enhancing the public realm, supporting active modes of travel, and supporting tourism and economic vitality.

The legibility has been termed the human face of the growing Smart Cities movement. While Smart Cities looks broadly at data, intelligent systems and governance in relation to big city challenges, legibility is something that acts at the local level to help people make better choices.

As Edmonton continues to change and grow, and as its population increases with incomers, there is a unusual opportunity to create a wayfinding project that meshes with architecture and information objectives. If this approach were adopted the outcome could be a city that is capable of absorbing growth and change while staying liveable and local.

Useful references include the Bristol Legible City project funded by the European Council in the UK. <http://www.bristollegiblecity.info> and the Ove Arup report on Smart Cities 'The Smart Solution for Cities'



If people make bad decisions because of poor information, is the opposite true?

Suggested next steps

Wayfinding: management and implementation

The objective of the study was to help the City move towards a corporate wayfinding strategy. This entailed understanding not only what the issues were that could be addressed, but also how the City could take a central role in facilitating the change.

Two main areas are critical:

- The City's role as an organizing body with the ability to create central open resources for others to use
- – A flexible approach enabling any relevant project to be integrated into a single wayfinding approach

The core idea is that the City would invest in creating the design and background information resources that support not only its own projects but also be available to encourage other parties to adopt the same approach. These other parties may be existing City partners such as the Business Revitalization Zones, or third parties that could use guidelines, maps and information designs to prepare projects that combine over time to create a system that develops flexibly with technology and development.

City management

- Business case for investing in urban wayfinding
- Wayfinding manual describing the elements, rules and applications
- Central, open source or licensed resources
- Management and maintenance of the system

Project implementation

- City projects – prototypes and on-street information
- Partner projects – combining walking with other access modes
- Third party projects – technology, development and communities

Suggested next steps

Wayfinding manual

The Edmonton Wayfinding Design Manual would be the essential reference document for any public wayfinding project.

Published and maintained by the City, the Manual would describe:

- The basic elements of the system - such as base maps and naming conventions
- The rules for how information is communicated - such as a directional strategy and planning sign placement
- How information is applied - describing and specifying standard signs, online or mobile systems and print

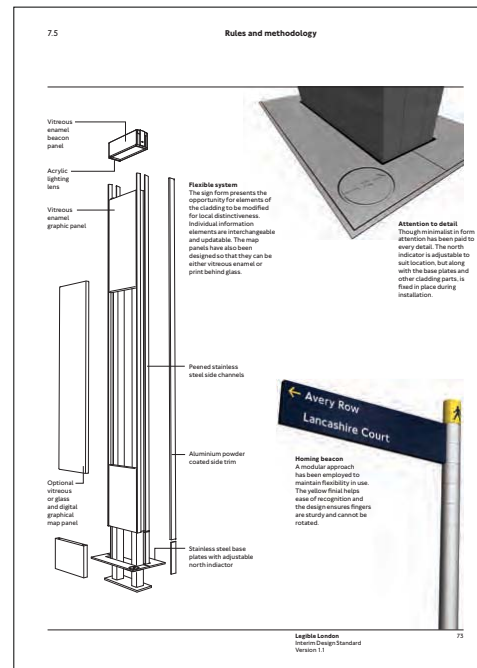
The Manual could provide a comprehensive set of guidelines and specifications enabling a city project team or developer to analyze, plan and execute wayfinding that would connect to other independently developed projects.

The manual would ideally be developed following a prototype and base map development in order to test core principles of the system. Key to its development would be ongoing consultation with stakeholders and the public and an evaluation process.

The timescale for a Design Manual varies considerably. However, acknowledging current momentum in Edmonton, it should be possible to achieve a working document within 6-8 months.



Examples from Legible London Design Standards



Suggested next steps

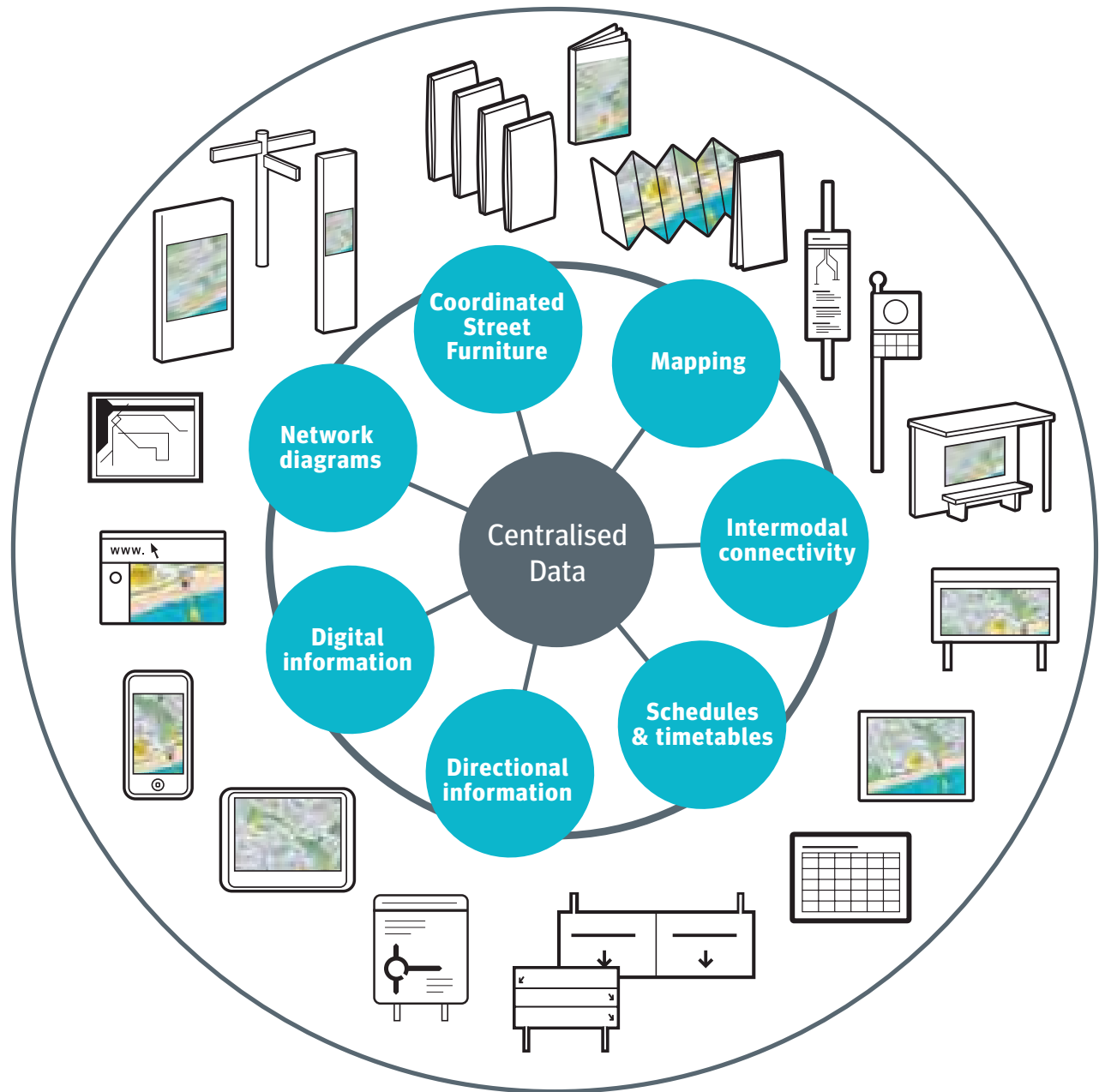
Centralized Database

The approach specified in the Manual would define a wayfinding system.

The system would be managed by a range of individual agencies as now, but with content and forms that coordinate across the City. This would provide the necessary consistency and reliability for visitors and residents to make wayfinding a trusted resource that could reduce the need to plan ahead of time and give people the confidence to explore without the fear of becoming lost.

Delivering on this promise of consistency and reliability requires data to be centralized so that information produced from it is always correct. This also requires different agencies to provide, use and critically to take responsibility for the accuracy of, the source data.

The system is not only physical, it is also a collaborative effort amongst City agencies with the responsibility for moving people to achieve seamlessness.



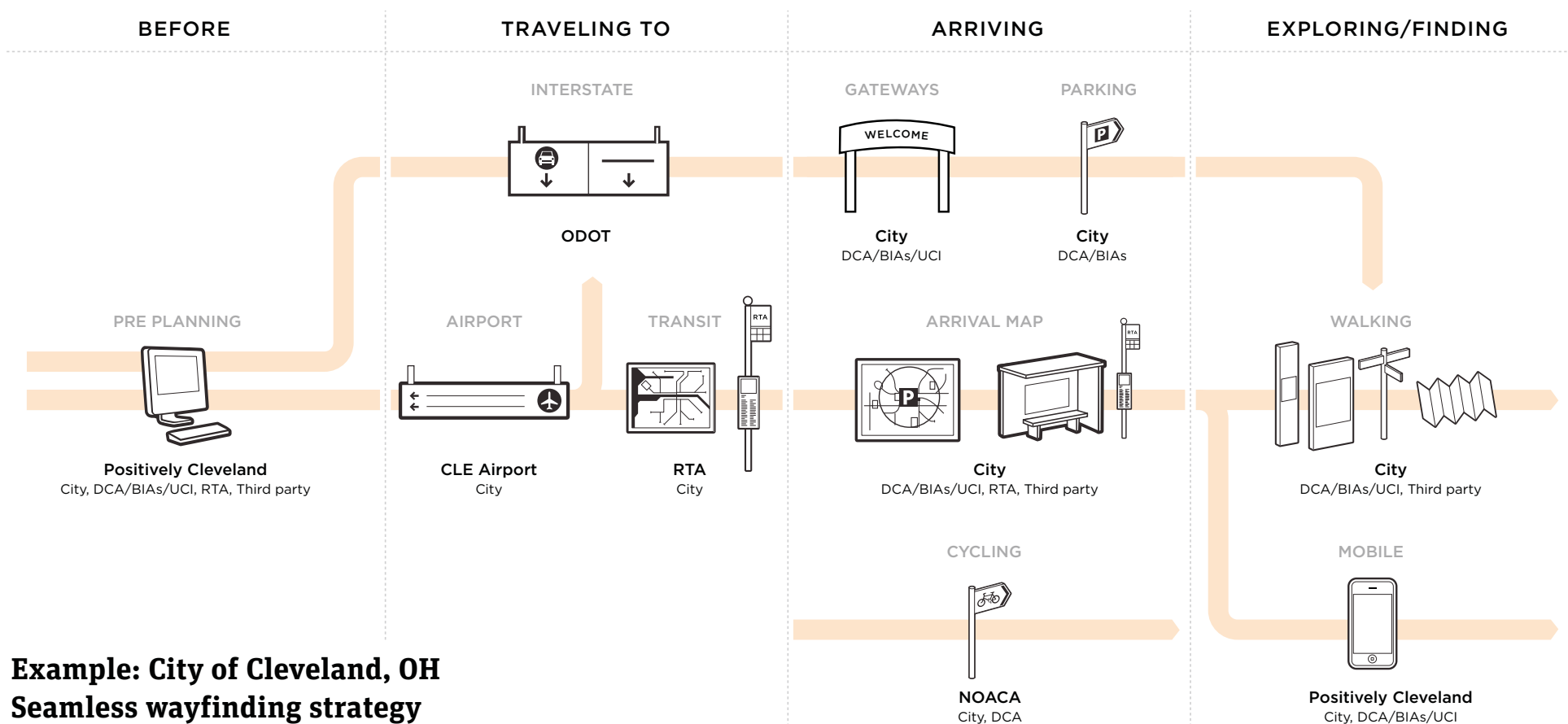
Suggested next steps

Seamlessness

Seamlessness in wayfinding is in simple terms providing a flow of information that supports a journey from beginning to end. This matches the user's perspective of just trying to get somewhere, or looking for inspiration without concern for the jurisdictional area that they have crossed into.

Most journeys start or end at a home. Unfamiliar journeys are often pre-planned to some extent. Journeys may change en route or be different on the way back. A seamless wayfinding system crosses the boundaries between transportation providers, streets and the web to allow planned journeys to be followed, to enable change and to open up options for future travel.

Seamlessness in this sense is not concerned with environmental context, except in respect of rigorous consistency in terminology and the structure of information. The context is however very important to developing mental maps and supporting legibility. Context is provided by the design and detailing of information content.



Example: City of Cleveland, OH
Seamless wayfinding strategy

Suggested next steps

City coordination

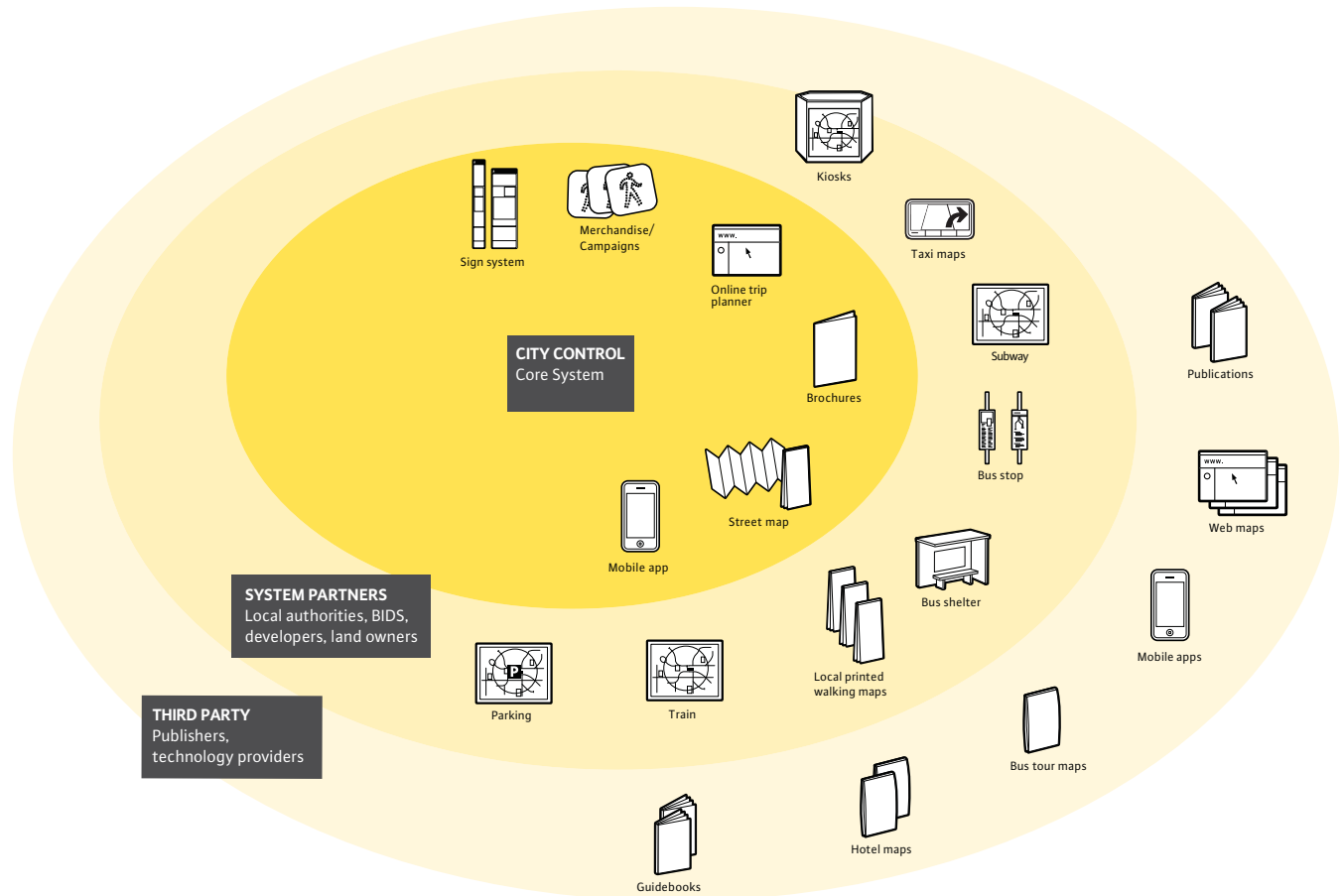
Consistency can be guaranteed where all wayfinding everywhere is provided by one body, such as an airport or hospital. This is however a challenge in cities because a range of public and private bodies provide services to residents and visitors.

A more realistic approach is to focus on the strengths of the individual bodies and to help them create a seamless system by also supporting their own objectives.

The model shows that the City has the civic role, providing resources that support a strategic aim.

System partners have a wider public responsibility as well as particular objectives and so will already produce public information that could be enhanced and cheaper by using central resources.

Third parties may range considerably, including businesses reliant on tourism and technology that could use the central resources to develop commercial uses that would expand the awareness and reach of the information system and develop new ways to use it. A good example would be a smart phone app developer using core base maps to produce themed map applications which are a commercial risk the City would not easily be able to support but may be extremely useful to some sections of the public.



Map-based systems

GIS and wayfinding

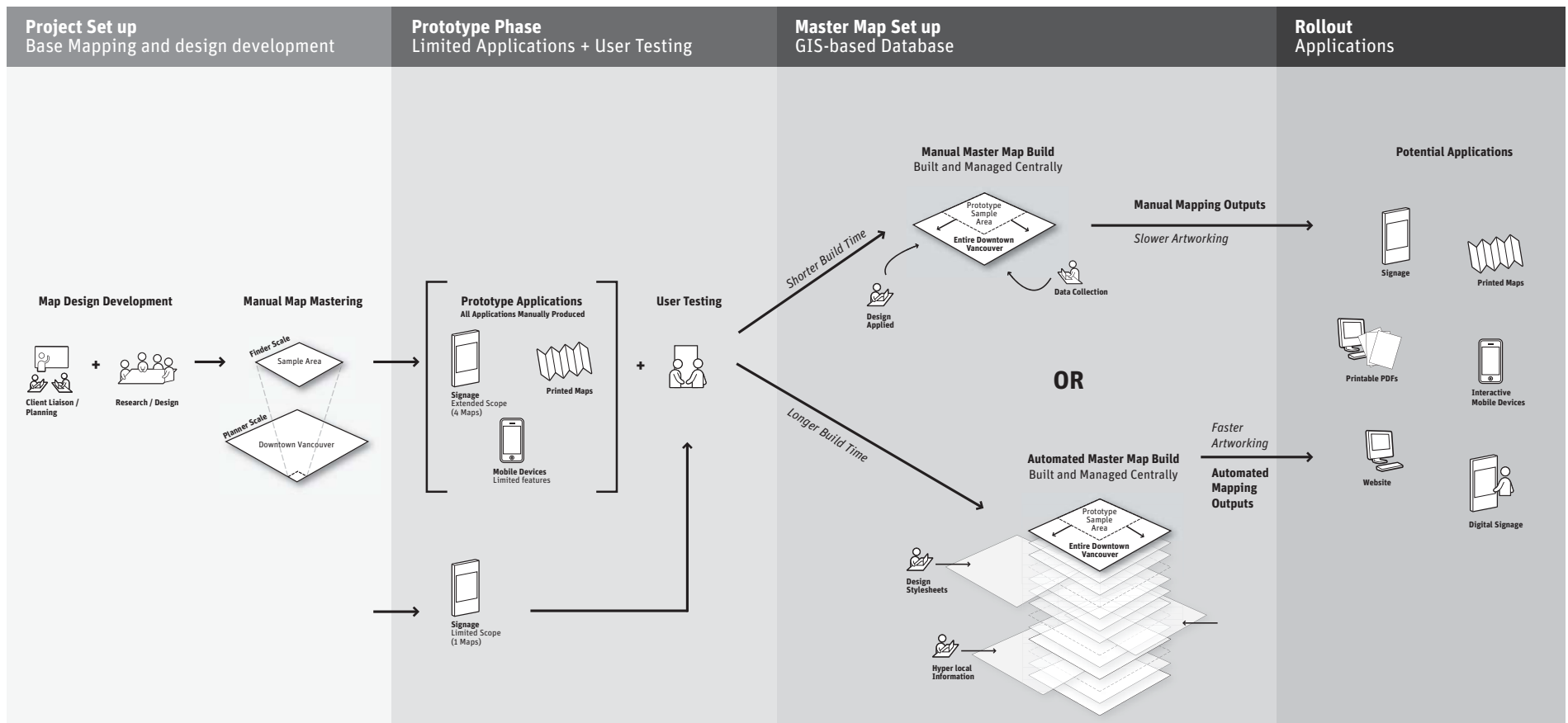
The City has developed an interactive mapping database that has taken several years to collate. Not all information is public but there is a rich store of data available if needed.

The difference between this form of data and a base map used for a wayfinding system is the focus of the data, its weighting and the graphic output capabilities.

Digital mapping systems can produce high quality maps at a pedestrian level of detail and able to directly produce ahead up maps for street signs. The software is also capable of integrating third-party data using API feeds that can be adapted for digital applications or one-off themed maps, such as shopping or festivals. The software is therefore fit for purpose in a way that a standard GIS is not.

Experience with University of British Columbia and digital mapping for Heathrow International Airport has shown that integrating data needed for wayfinding with an existing GIS is slow, expensive and unsatisfactory.

For these reasons we would recommend a stand-alone mapping system that has a 'light' connection to the existing GIS, but in such a way that one can support the other.



Suggested next steps

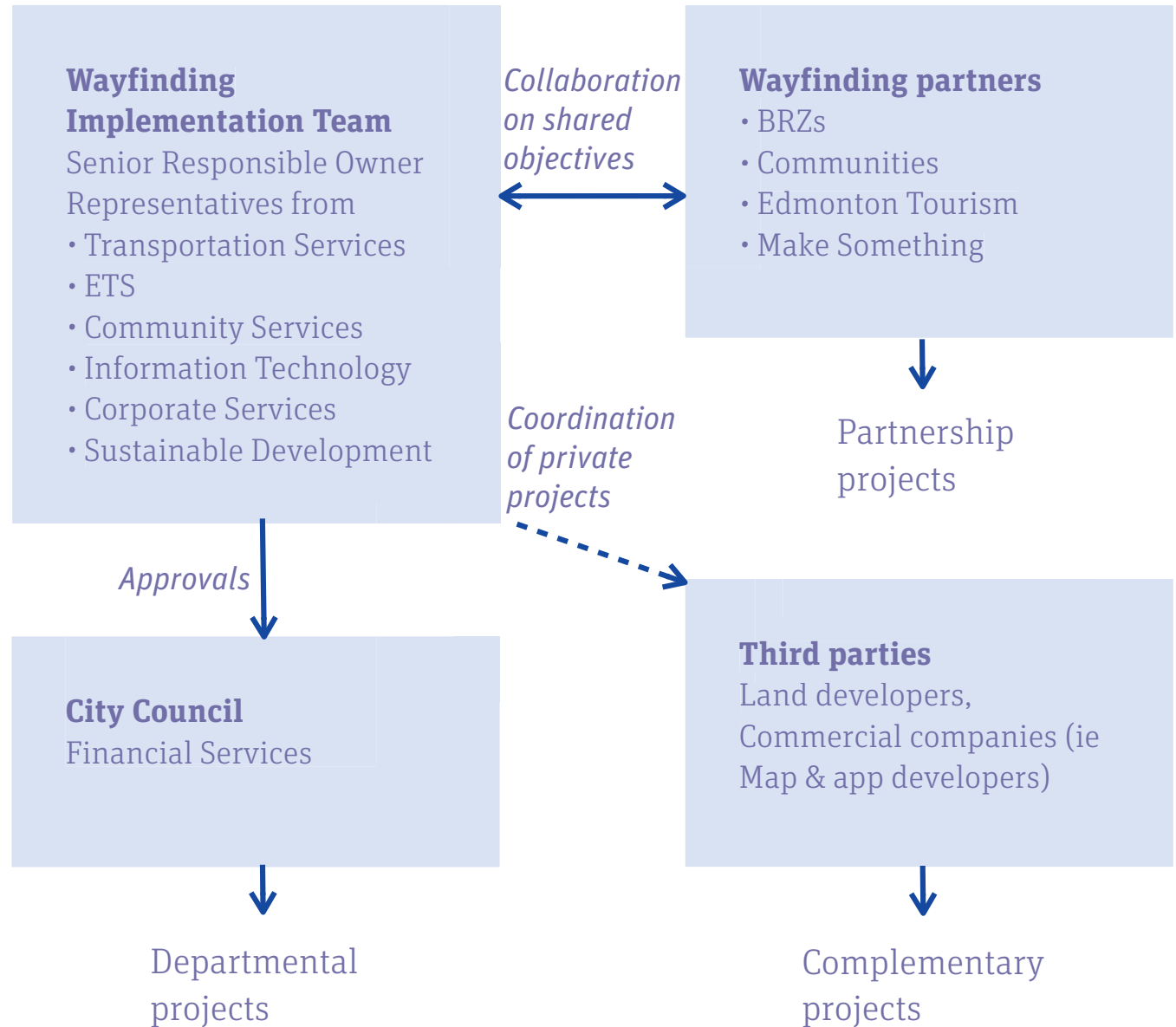
Partners and governance

The system behind simple, consistent information for the user is somewhat more complex as it must coordinate many different agencies and interests into a single direction.

A critical starting point is to ensure this city-wide initiative is embedded into a range of city plans and functions. Experience from other major cities suggests that the best model is for an implementation team to be established with a senior city manager as chair and a business case prepared as its guiding reference.

An implementation team made up of a range of stakeholders from within the City will not only allow for close integration with the many touch-points that information projects have in a corporate structure, but also enable opportunistic projects to be identified and linked to the various city projects and funding streams.

Opportunities aside, the main role of the implementation team would be to establish the case and project plan for preparing the wayfinding manual, to develop individual projects through its own departments or in partnership with others. It would also stay aware of other activities of relevance by third parties, making contact and assisting where there is mutual benefit and advising them if there are issues.



Suggested next steps

Project ideas #1: Prototyping

A prototype project could achieve many useful objectives:

- Design development with user testing
- Responding to the existing dialogue about city wayfinding and develop wider input
- Evaluate business case assumptions

A prototype project in Edmonton could take the form of initiatives in three distinct areas;

1. A signage-based system on Jasper Avenue downtown in association with ETS to link transit and walked journeys;
2. A trial pedway map integrating it into street wayfinding (ie the links to Jasper Ave)
3. In a neighbourhood with a BRZ to test wayfinding with a focus on supporting local identity and business using a range of media interfaces.

In all three cases prototype information could be developed quickly (10-12 weeks) and installed at low cost in existing infrastructure. A public evaluation project, independent of any wayfinding consultancy, would respond to existing interest and provide evidence for future investment.



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Edmonton Wayfinding Project
August 26, 2013



Suggested next steps

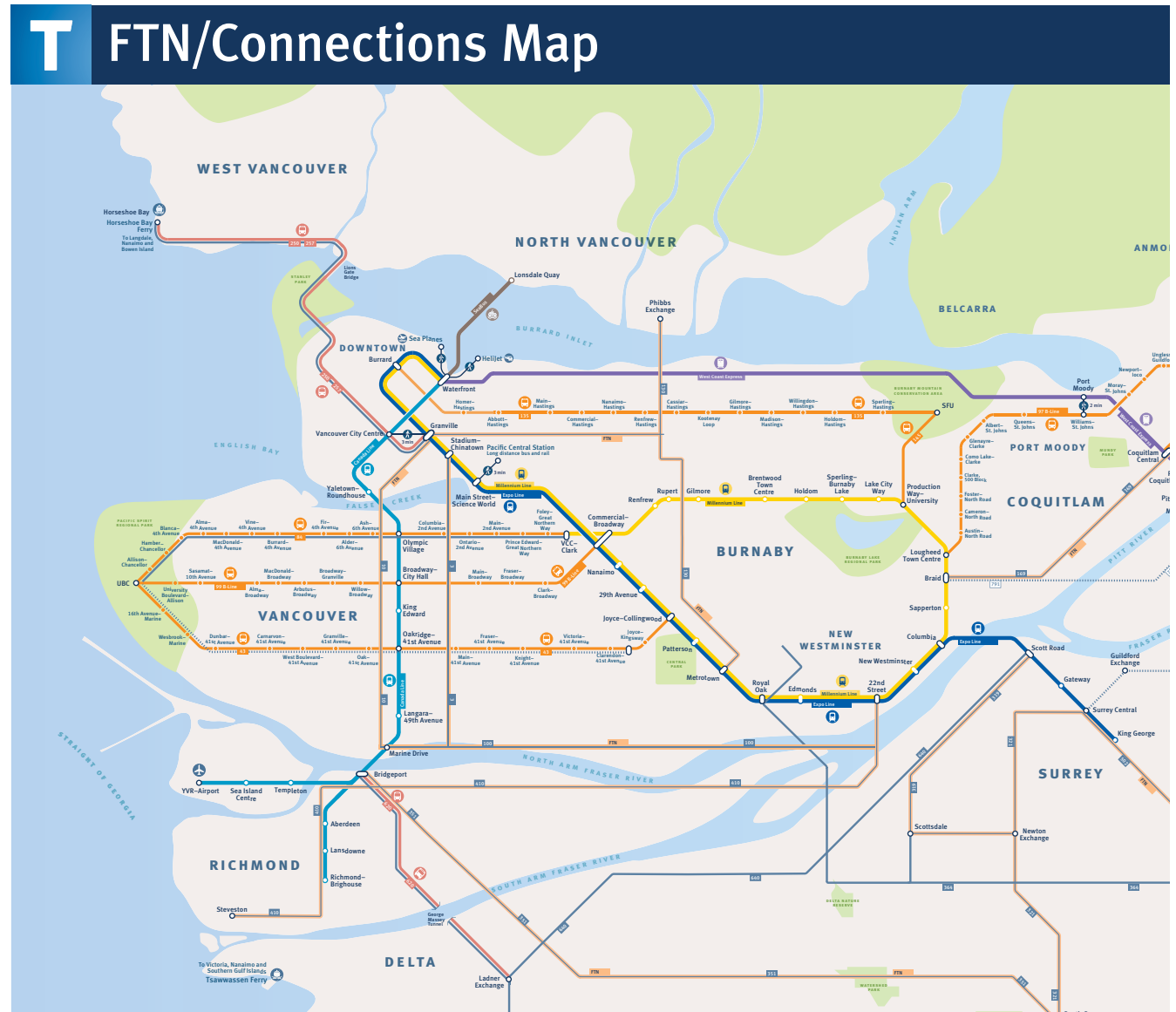
Project ideas #2: Edmonton Connections

A major focus of City planning is how to balance growth, liveable neighbourhoods and sustainable travel. Any method to reduce or switch single-occupancy car journeys is worth considering.

One barrier to switching from driving to transit is a lack of awareness of the alternatives. Transit information is also traditionally thought of as complex which creates a further barrier.

Many cities have developed Frequent Transit Network (FTN) diagrams to help simplify the network to those services which can be considered ‘turn up and go’. This means only showing services that are available 7 days/week, usually 15 hours or more a day and often with maximum headways of 15 minutes. A diagram of the ETS system would include the LRT and buses meeting agreed local FTN criteria.

While the diagram only shows a fraction of all services, it does provide an incentive to try transit for relevant journeys and from this, the opportunity to change attitudes and eventually, behaviour.



Example: TransLink, Metro Vancouver

Suggested next steps

Project ideas #3: Easy ETS

Throughout the study it has been clear that ETS has vested and wider interests in city wayfinding but limited ability to expand beyond its current projects.

A project where the City started to develop its central role by working with ETS to provide information that encourages transit use and bridges the gap between walking and transit stages of journeys might provide the incentive for ETS to review its position.

In a working agreement with ETS it would be possible for other departments to lead on the production of 'Where to Get your Bus' and 'Walking from Here' maps for transit facilities. These would help people find connecting services and to orientate themselves when alighting.

The user would benefit from simpler and more seamless information, while ETS would benefit from improved customer satisfaction.



Suggested next steps

Project ideas #4: Pedway 2.0

The Pedway is not a complete network and over time differing standards and management regimes have evolved. Some routes are difficult to follow and identity of the system has not been updated or re-evaluated in many years.

A specific project as part of a Legible City initiative would be to review the user experience of the Pedway. The aim would be to use this feedback to reconsider its identity and the information required to encourage use.

A prototype project could design new information to explore the potential to integrate the Pedway paths through and under buildings more consistently with street routes rather than the current separate Pedway signage and identity. Taking this approach could increase the apparent permeability of the street grid and improve city walkability.



Suggested next steps

Project ideas #5: Engaging developers

A specific opportunity exists around how to encourage private developers to adopt and invest in a City wayfinding strategy. There are some very extensive and important development projects in play and many of these will become part of the urban fabric of the City open to the public.

While it is possible to create bylaws to require developers to include or pay into funds for civic projects such as wayfinding, these can become wedge issues. A better approach is to create a position where it is in the developer's interest to adopt a standard approach and to provide resources to make this easy. The manual and system elements such as master maps, could provide these incentives.

A Community Amenity Contributions fund for wayfinding could also be established for voluntary contributions for developers who support the initiative but do not want to take on the work of creating the elements directly. This option may be challenging due to local constraints and other demands but it has been used in other municipalities.



Suggested next steps

Summary: Potential work plan

An outline work plan is broken into three phases:

Phase 1 – this establishes the governance, case and detailed strategy for a supportable and effective project. This will require identification of a senior city manager as senior responsible owner, formation of an implementation team and further development work, and consultancy.

Phase 2 – this develops and produces the core resources and prototypes them for public testing. At this point the City will need to have a firm partnering protocol in place with other bodies and, most likely, dedicated resources for project management and design approval.

Phase 3 – this phase marks full rollout across the full spectrum of realms and media. The manual is produced to guide City and partner projects and initiatives by third parties. At this point, specific infrastructure may be commissioned and fabricated. Also this stage of development may require a permanent wayfinding team to be established to maintain data, negotiate funding and integration opportunities and to oversee quality.

With internal support the timeframe from Phase 1 to the start of Phase 3 should be 12-18 months.

Budgets for the plan are subject to widely ranging options and opportunities.

Phase 1

- Develop detailed strategy
- Prepare budget and case
- Establish steering partnership

Phase 2

- Prepare implementation plan
- Commission core elements (maps, citywide systems)
- Implement and evaluate downtown prototype
- Implement and evaluate neighbourhood prototype

Phase 3

- Open source master map system
- Custom designed map kiosks, signage
- Edmonton Wayfinding Design Manual
- Transit implementation
- Developer agreements adopted
- Walking and cycling implementation

Suggested next steps

Outline budgets and timing

A critical consideration are the resources required to develop, implement and maintain a system of information. City wayfinding can be particularly challenging as the best solutions will cross jurisdiction boundaries and be available in many different information formats.

In addition to the personnel resources discussed in the governance section, the potential orders of cost and time are naturally important in considering the viability of such a project.

The table provides some illustrative outline budgets and phasing for the major elements of the work plan. The budgets are based on previous projects experience and assumptions about possible scope and scale of implementation. All these factors remain to be fully investigated and verified to allow accurate estimates to be prepared.

Major projects	Notes	Outline budget*	Phase 1 3-6 months	Phase 2 4-8 months	Phase 3 6-18 months
Detailed strategy	Wayfinding project definition and benefits	\$40-50,000			
Implementation plan	Priorities, budget, schedule	\$20-30,000			
Master map system	Assumes 15 sqkm detailed 'finder' map + 100 sqkm planner map	\$200-250,000			
Downtown prototype	Test designs and applications (assumes minimal infrastructure)	\$30-50,000			
Neighbourhood prototype	Test designs and applications (assumes minimal infrastructure)	\$20-30,000			
Prototype evaluation	Independent review	\$10,000			
Mobile app report	Technical concepts and options	\$20,000			
Create app API	Source for online map uses	\$15,000			
Create a smartphone app†	If the City decided to lead on this idea	\$50-150,000			
Design Manual	System, design & guidance documents	\$50,000			
Sign specifications	Assumes custom signs - scope varies	\$20-40,000			
Downtown roll out	Assumes 30 signs/sqkm x 2.3sqkm @ \$15,000 per unit	\$1.1m			
Citywide roll out	Assumes 15 signs/sqkm x 10sqkm @ \$10,000 per unit	\$1.5m			
Transit projects	ETS estimates for station info kiosks \$2.1m. FTN costs TBD.	>\$2m			

* Budgets represent an estimate of combined procured professional fees and implementation costs. Values and timings are provided purely for illustration and should not be used for decision-

†Some projects, such as the app, may come forward as strategic city initiatives or remain solely private sector projects

Appendix

Case study: City of Vancouver

Appendix: City of Vancouver Background and management

To help understand how such a system could be established it may be useful to consider a successful example.

Background: The City of Vancouver introduced wayfinding in advance of it hosting the 2010 Winter Olympics. The City wanted to provide walking information for international visitors and agreed a street furniture contract with CBS Decaux that included 180 double-sided map stands and 30 large size poster units to contain wayfinding information. These units were placed around the city, with the majority in Downtown Vancouver.

The content comprising a city map and directions was designed by KARO Ltd and installed before the start of the Games. The maps were provided as artworks and had an expected life of three years. As a result of the cost of updates the maps were relatively simple.

As the simple maps did not fully meet the needs of local Business Improvement Areas, the City agreed to allow BIAs to develop their own maps for one side of the stands. The result was a gradual erosion of the integrity of the map system.

In 2012, being aware of the impending need to replace the KARO maps, the City looked at alternatives. They decided that a digital map system which was more detailed, capable of low-cost updates, able to accommodate cycling wayfinding needs and potentially available in web and mobile formats, was the best investment.

To manage the process the City set up a working group comprising transportation planning, engineering, GIS/IT, corporate communications and parks board representatives. The city also appointed a project administrator to manage the interaction with Applied and maintain progress on City actions.

In addition to the City working group, consultative workshops were held with BIA groups, the Council's active transportation policy committee and with specialist City staff - such as the Mayor's office, IT managers and public bike share group. These consultative meetings helped shape the planning strategy and the technical aspects of the digital system.

The City chose a stand alone map database system provided by the Living Map Company (LMCo) under Applied's management. All data and outputs from the Living Map remain the City's property at all times while LMCo maintain data integrity, security and accuracy under a periodic review process.

The City wishes to retain flexibility and so had an API server provided for future app development and is considering the potential to use the digital system to provide information for its planned public bike share system in 2014.

Reference: Jenniffer Sheel, City of Vancouver, Streets Activities Branch



The City of Vancouver provided BIAs with the opportunity to produce their own maps for display on City map stands. The results were patchy and the system began to fragment

Appendix: City of Vancouver

Prototype elements



Appendix: City of Vancouver

Independent prototype evaluation

Prototype: The City of Vancouver hired Applied to prepare a prototype project in February 2012 to prove the concept of a digital map system.

The resulting prototype project replaced the maps in four stands and six poster cases in Downtown. The prototype also brought in the interests of the Downtown Vancouver BIA and the regional transit authority TransLink. Applied worked with the DV BIA to produce a custom shopping map leaflet, while also designing a station facility walking map for TransLink. Both these additional elements were generated from the same base map but adapted to ensure the content met the specific needs of the users - for instance including key retail stores and showing bus stop locations respectively.

The prototype was evaluated by the City and DV BIA separately. The City interviewed people over a few days while the DV BIA studied over 3 seasons. The DV BIA found that:

- 63% of users were tourists
- 53% arrived downtown by transit
- 80% of the map users were looking for a specific destination (of that 50% were looking for specific streets or districts.)
- 99% found it easy to read landmark information and that the map was easy to read
- 50% of users already had a mobile device with internet access but wanted to use a physical map

81%

Don't know or only partially know their way around downtown



87%

Found ahead up maps easy to use

98%

Could work out where they were on the map



82%

More likely to walk between places because of maps



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