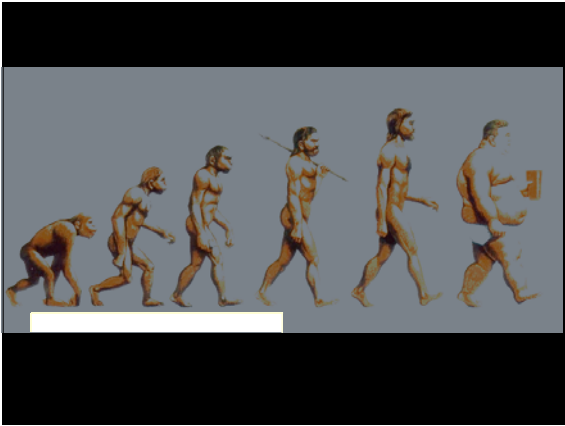


Redefining Transportation Excellence



Transportation Planners





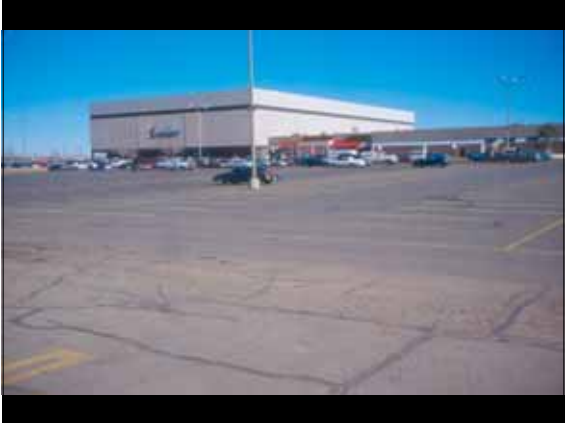
















Transportation Excellence







My 3 Proposals

1. Transportation should be about building communities, not facilities
2. Energy prices will soon change everything we are doing
3. Engineers could be leading the way, but aren't

**Proof
by
assertion**

10 Principles

- 📁 Mobility Balance
- 📁 Street Connectivity
- 📁 Community Character
- 📁 Forecasting is not Planning
- 📁 Transit will not Alleviate Congestion
- 📁 Active Living
- 📁 Multimodal Streets
- 📁 Sustainable Mobility
- 📁 Empowerment
- 📁 Monitoring & Reporting

Redefining Transportation
Excellence

1. Mobility Balance

Mobility Elements

Travel – Moving over distances

Circulation – Moving within areas

Access – Getting in the door

Facilities

Travel – Freeways, arterials, rail transit, express bus lanes

Circulation – Collectors, connectors, transit routes, bike trails and lanes

Access – Local streets, parking, sidewalks and crosswalks

Built for...

Seattle



Redmond



...travel

Built for...

HSST

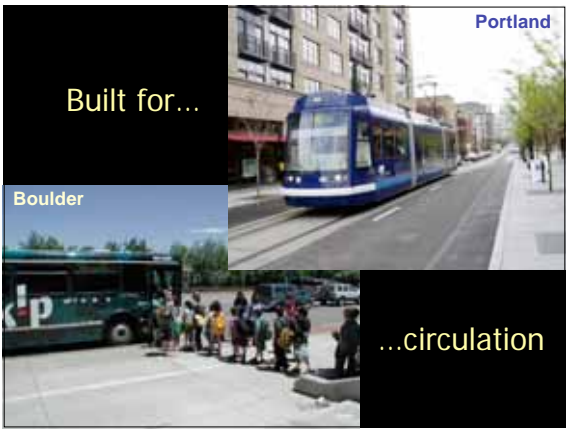


Denver



...travel

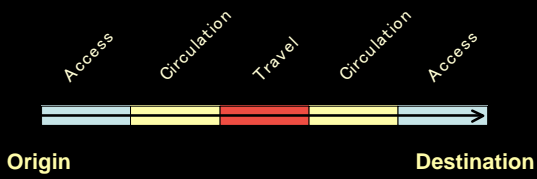




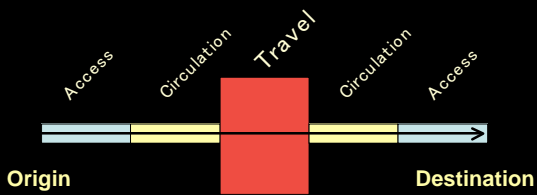


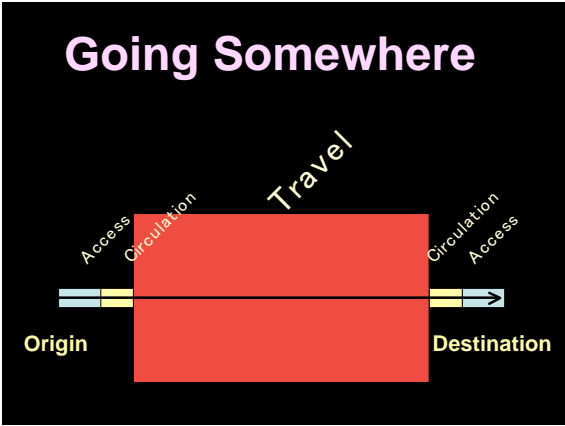
**We build
too much for travel
and
too little for
circulation and access**

Going Somewhere



Going Somewhere







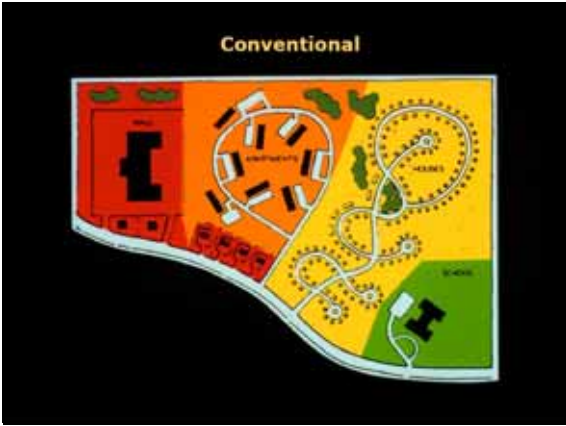




Good circulation and access are far more important to cities and towns than travel capacity

Redefining Transportation Excellence

2. Connectivity







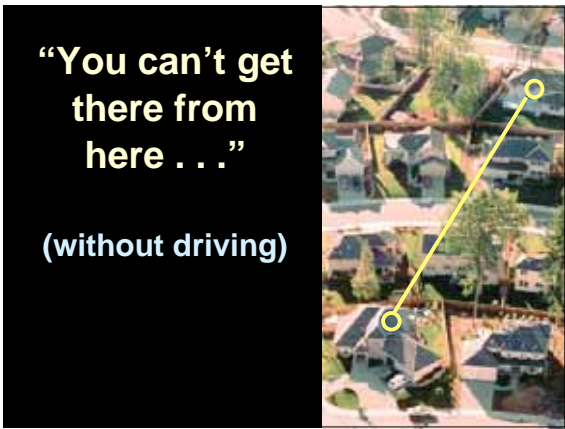


**It's the connectivity,
stupid**

- Impacts of Poor Connectivity**
- Massive, congested arterials
 - Increased VMT/household
 - Transit voids
 - Inactive living
 - Poor emergency service access
 - Reduced travel safety



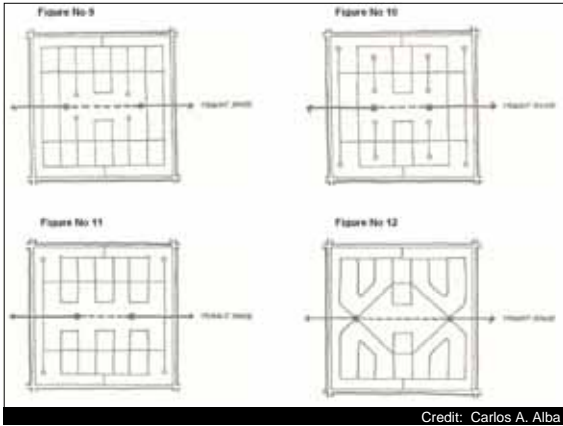
Streets are the principal infrastructure for all modes of travel

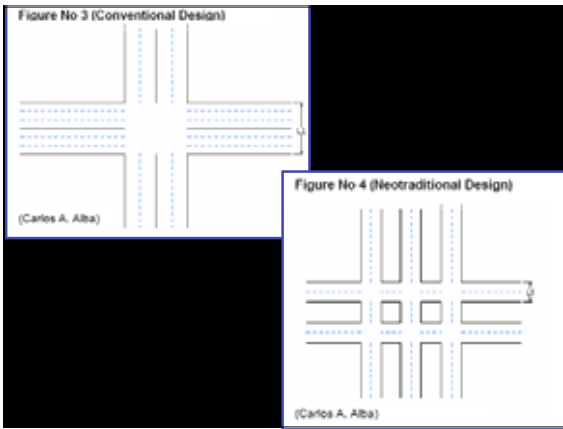


“You can’t get there from here . . .”
(without driving)



Boulder





A well-connected network of small streets provides better mobility, is safer and is more efficient than a poorly-connected network of wide streets

Missed Opportunities (permanent)













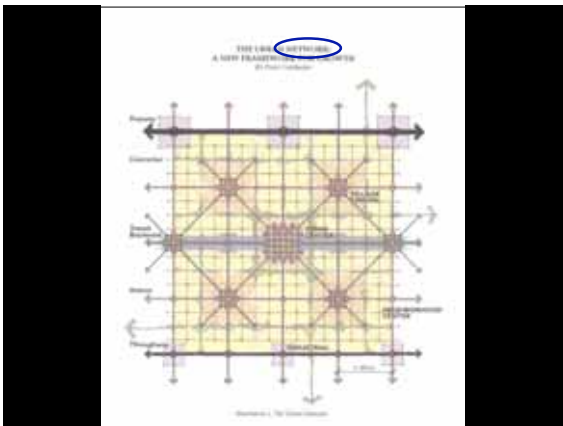


Functional Classification

- Freeway
- Major Arterial
- Minor Arterial
- Commercial Collector
- Residential Connector
- Commercial Local
- Residential Local
- Alley



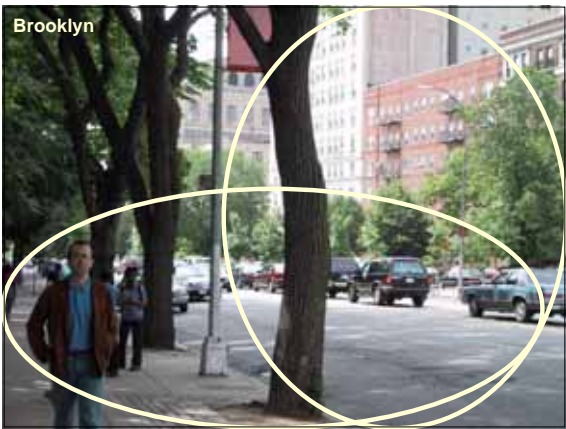
Nothing useful is achieved by the **inexorable widening** of community streets

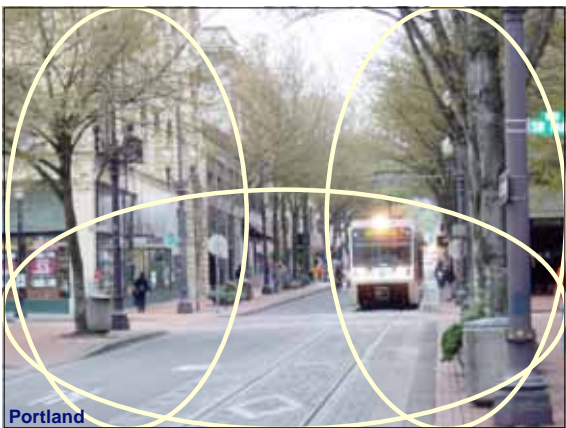


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Excellence

3. Community Building









Credit: Walter Kulash



Boston



Flagstaff











Credit: Kulash



Winter Park, FL

We can't build a street that looks like this...

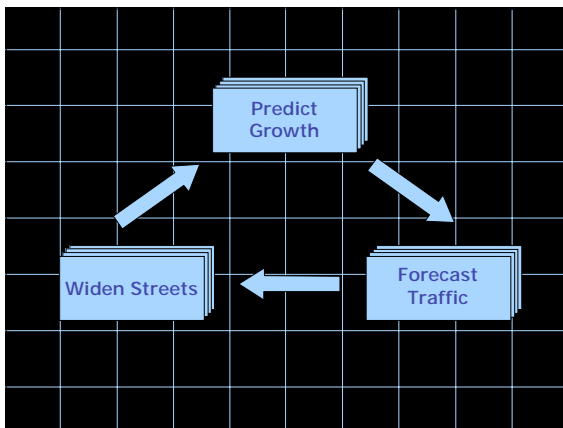


...and expect this to result.



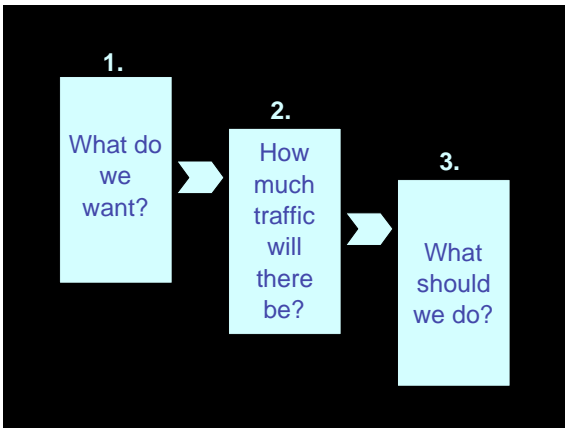
The design of transportation corridors has a profound effect on the character of abutting land uses

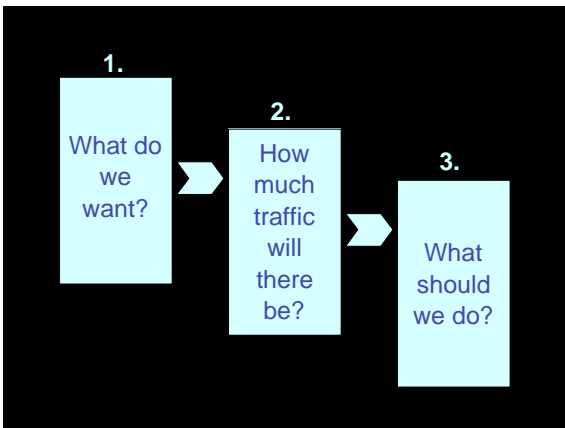
4. Forecasting is not Planning

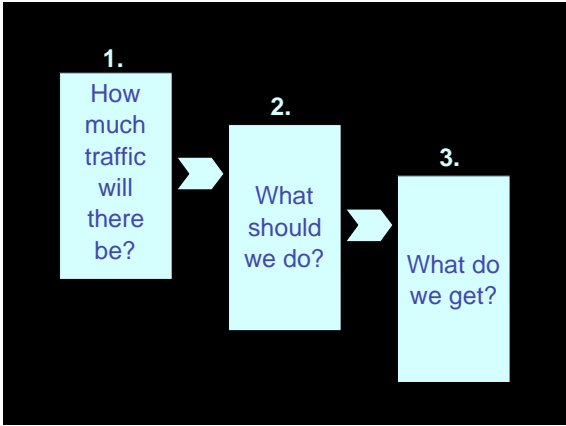














Induced Traffic

“Induced Traffic”

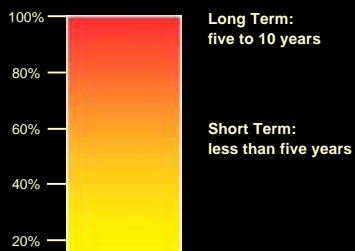
Def.

The additional traffic that results directly and indirectly from transportation capacity or travel time improvements – traffic that would not otherwise have occurred at that location.

Types of Induced Traffic

- Changes in travel route Immediate
- Changes in mode of travel < 6 months
- Changes in time of travel < 6 months
- Changes in amount of travel < 6 months
- Changes in origins & destinations < 10 years

% of new capacity consumed by induced traffic...

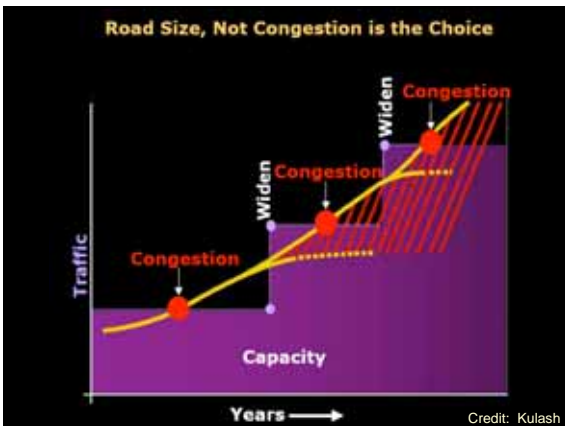




If you build it . . .
. . . they will come



If you build it . . .
. . . they will come



Expanding streets to accommodate traffic growth is self-fulfilling and self-defeating at the same time

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5. Transit will not Alleviate Congestion



Good Reasons to Invest in Public Transit:

- Improve mobility (travel, circulation and access) in the face of growth.
- Avoid over-building roads and streets and destroying character.
- Improve personal travel choice and family flexibility.

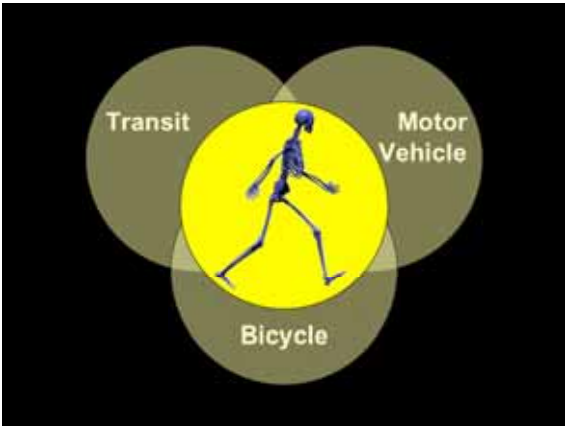
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6. Active Living

Walking

...is not an
“alternate
mode”

Walking ...is Human



We Walk Because We are Human



We are Human Because We Walk

Because We Walk...

- We speak
- We sing
- We use tools
- We orient spatially at 3 mph

















D



D -



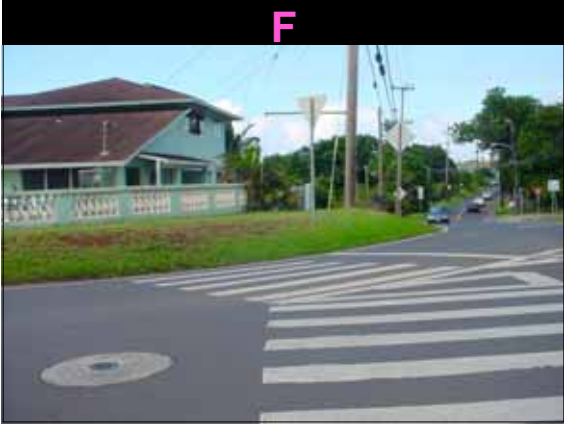
D-



D-



F



Pedestrian Science

- Types of Walkers
- Types of Pedestrian Environments
- Practical Strategies









Boulder



Boulder



Boulder







Boulder's pedestrian mall works because ...

... it is supported by a multimodal transportation system

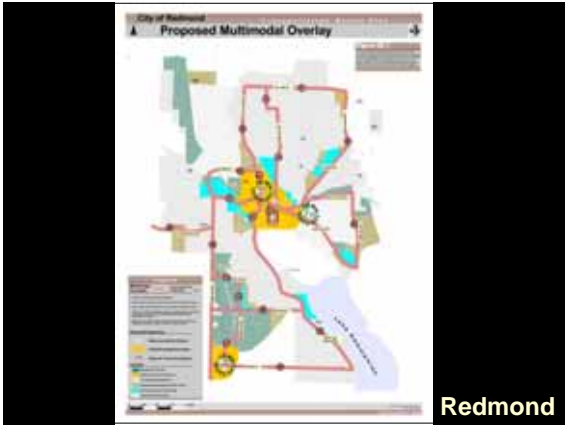




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7. Multimodal Streets





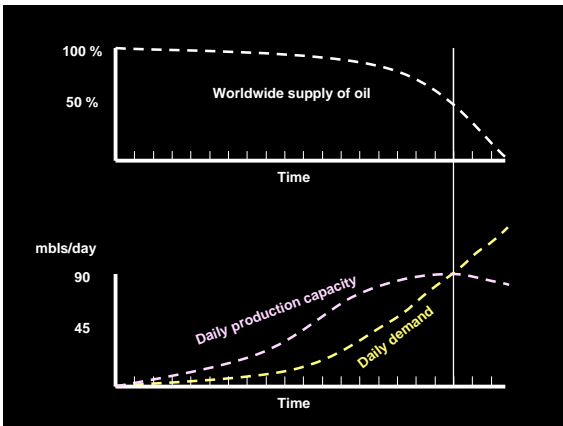
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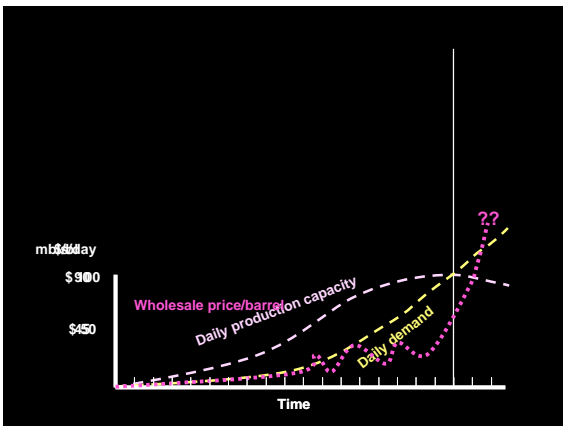
8. Sustainable Mobility

Annual Household Spending
Minneapolis-St. Paul
(Percent of Total Household Expenditures)

Transportation	\$8,683	18.4%	
Shelter	\$8,135	17.2%	
Food	\$5,607	11.9%	
Utilities	\$2,292	4.9%	
Other Household	\$4,338	9.2%	31.3%
Insurance & Pensions	\$6,075	12.9%	
Health Care	\$2,184	4.6%	
Entertainment	\$2,404	5.1%	
Apparel & Services	\$1,927	4.1%	
Education	\$985	2.1%	
Miscellaneous	\$4,121	8.7%	

Total Household Expenditures on Transportation in 2000 in Minneapolis-St. Paul: \$10.9 billion











Sustainable Transportation Systems:

- Enable families to reduce daily VMT without sacrificing income
- Provide a high degree of choice in mode of travel
- Are resilient to economic fluctuations

Things We Are Not Doing to Ensure Future Resiliency

- Providing a collector/connector street network for bus transit and bike
- Preserving rail envelopes in freeway and major arterial corridors
- Planning for dense, mixed-use areas as part of our land use planning
- Requiring walkable pedestrian

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9. Empowerment



Breckenridge



Bainbridge Island

The public is empowered when...

...they have access to the information they want, not just the information we think they

A group of people are gathered around a table, possibly at an information booth or a public meeting. They are looking at materials on the table. The setting appears to be an indoor public space.

The public is NOT empowered when...

...the project schedule cannot be revised



The public is NOT empowered when...

...standards prevent creative design solutions



The public is NOT empowered when...

...the project must fit within or fully spend a predetermined budget



The Tools of Power

- Budgets
- Schedules
- Standards

Most public process in transportation planning and design today strives to obtain consent rather than to enlist the public in creative development of their own communities

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10. Monitoring & Reporting

Reporting Tools

- Annual Transportation Performance
- Mobility Report Card
- Transportation Chapter in City Report

Continuing public and political support for transportation programs requires accurate, honest monitoring and reporting of trends and outcomes

Summary

3 Proposals

1. Transportation should be about community building
2. Energy prices will soon change everything
3. Engineers could be leading the way



Challenge to Engineers:

- Do you what a multi-way boulevard is?
- Would you know how to handle intersections on one?



Challenge to Engineers:

- Do you know what the GNU urban “transect” is?
- Could you adapt your local design standards to this format?



Challenge to Engineers:

- Do you know what “TOD” is?
- Would you know how to handle access and circulation in and around a rail station?





Thank You

www.charlier.org
