

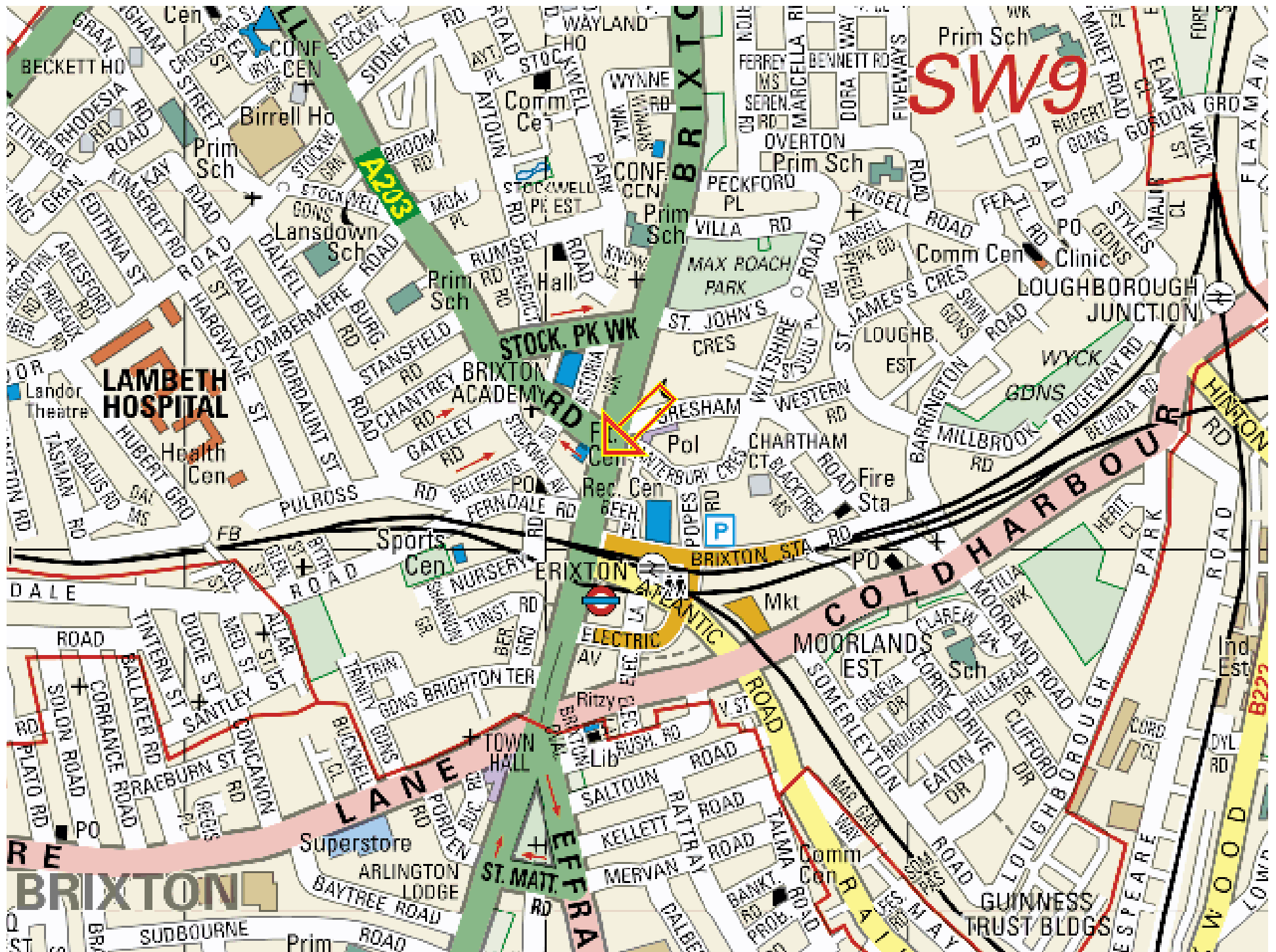
From
Old web Maps
to
Semantic Geo-mashups

A Position Statement @ Geows'09

Vlad Tanasescu and Dumitru Roman

Feb 2, 2009
Cancun, Mexico

(old) web Maps



New web Maps

Navigation

+

APIs

+

Reality Effect

Navigation

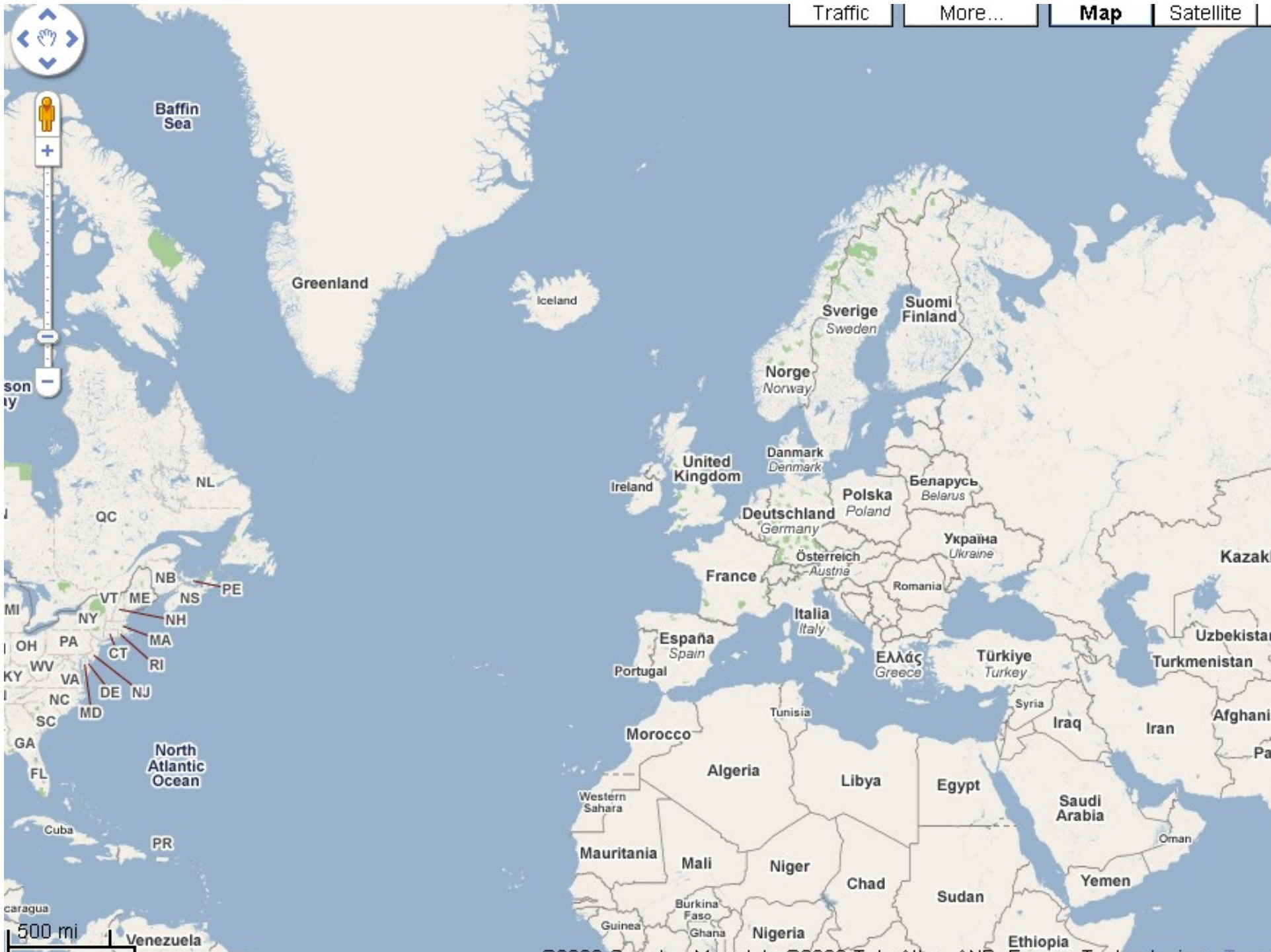


Traffic

More...

Map

Satellite



500 mi



Traffic

More...

Map

Satellite



50 mi

Le Havre



Map

Satellite

Hybr

00 ft
0 m

Reality Effect



Road Aerial **Bird's eye**

Beta

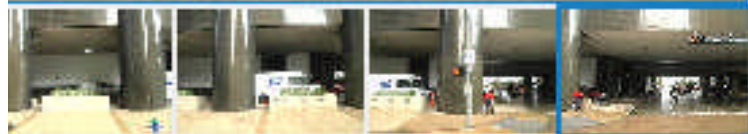
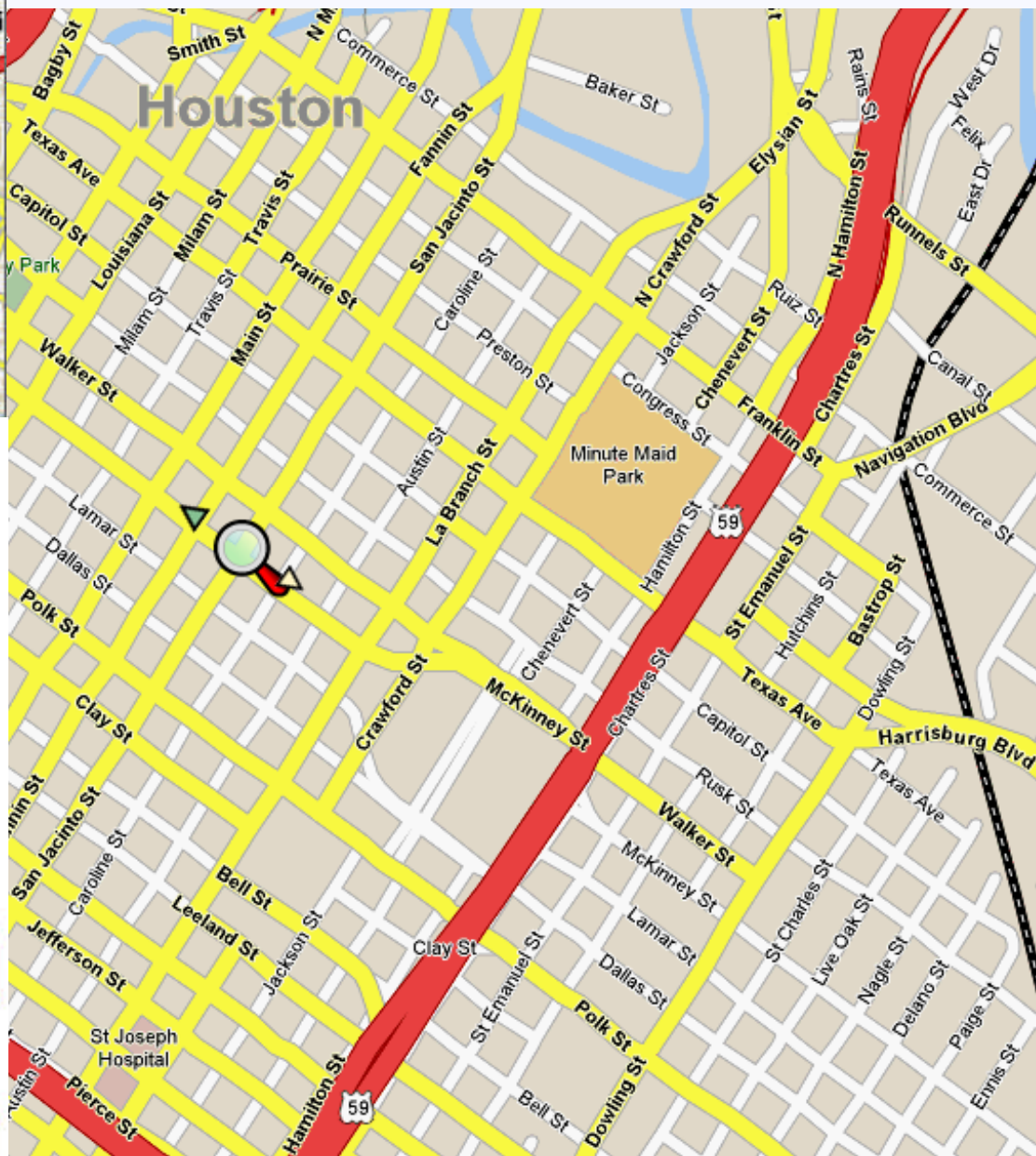
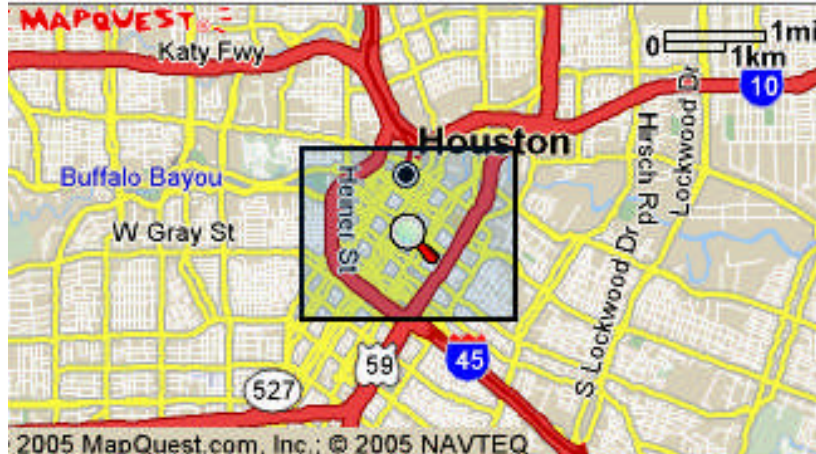
Location:

MAP

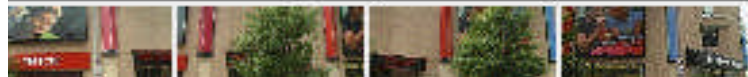
Enter an address or intersection.

Streets Containing BlockView™ Images

[Get Bookmark Link](#)



Mckinney St (both sides)



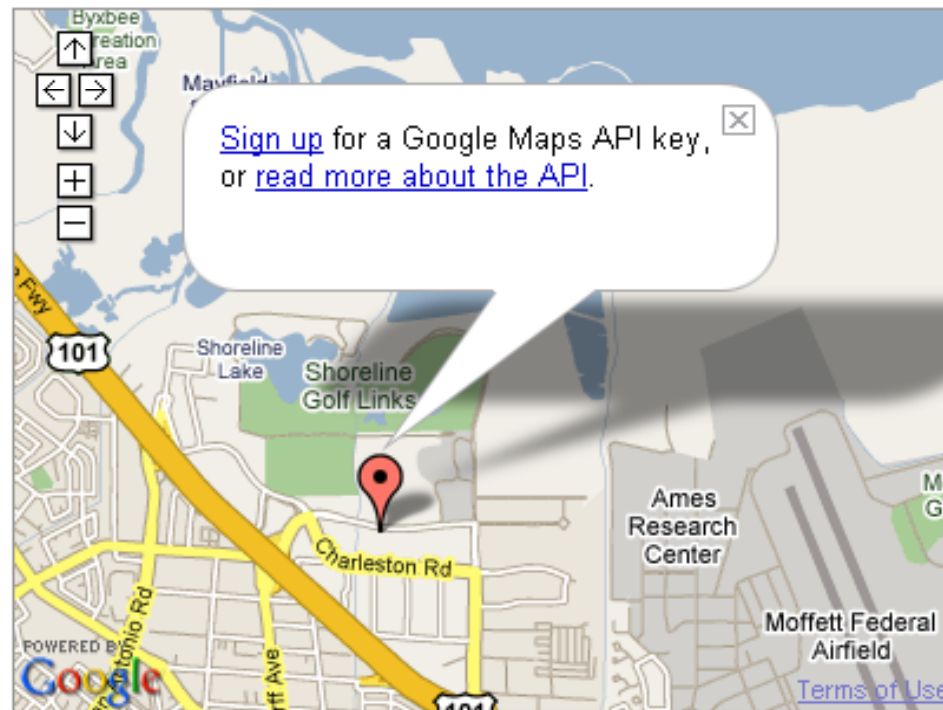
API S

What is the Google Maps API?

The Google Maps API lets you embed Google Maps in your own web pages with JavaScript. The API provides a number of utilities for manipulating maps (just like on the <http://maps.google.com> web page) and adding content to the map through a variety of services, allowing you to create robust maps applications on your website.

New! [Reverse Geocoding](#) - use Google's geocoder to return human-readable addresses from locations on the map!

Note: The Google Maps API [Terms of Service](#) have been recently updated!



Yahoo! Maps Web Services - Introducing the Yahoo! Maps APIs

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[del.icio.us](#)

Save, tag, and share your favorite sites

[Finance](#)

Get company news

[Flickr™](#)

Share photos with your friends

[HotJobs](#)

Find a great job

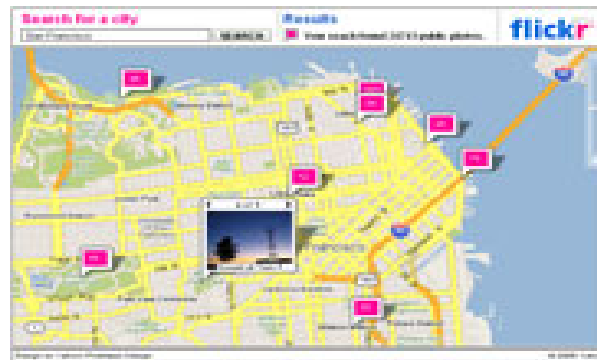
► [Maps](#)

Create rich embedded map applications and overlays

The New Family of Yahoo! Maps Web Services

The new [Yahoo! Maps](#) offers a powerful new way to experience and use maps. Tap into this beautiful new interface either using the free Flash® viewer from Macromedia® or display via [AJAX](#).

Yahoo! Maps also includes a rich set of APIs for both [Flash](#) and [AJAX](#) that enable you to use and publish maps on your web site or in your client application.



See the applications enabled by these APIs in our [Maps Application Gallery](#).



OpenAPI (Beta)

What is MapQuest OpenAPI?

The MapQuest OpenAPI is a free service that allows you to use JavaScript to easily integrate routing, geocoding and mapping into your website. With this feature-rich API you can create dynamic routing and mapping applications for personal or community use.

Ready to try it out? Get started now by completing the simple [OpenAPI Registration](#).

What can I do with OpenAPI?

The OpenAPI is based on MapQuest's time-tested mapping and routing technology that powers the leading online map site, MapQuest.com. Complete with routing and mapping capabilities, the OpenAPI allows developers to quickly and easily add location-based functionality to web applications.



Routing - Integrate MapQuest's ultra-accurate driving directions to show your users exactly how to get there.



Mapping - Plot multiple locations on a single map. Choose one of our map styles to create a truly integrated look-and-feel with your website.



Active Point Markers - Add up to 100 active point markers to a single map. You can also add events, like a pop-up box with key information displayed when users click on or roll over the marker.

How do I get started using OpenAPI?

Getting started is easy and quick. Just enter the information requested on the [OpenAPI Registration](#) and you'll receive an email with instructions to complete your activation. Once you get the confirmation email, you're all set to start using the MapQuest OpenAPI!

Geo-mashups

- For Rent
- For Sale

City:

Price Range:

[Refresh](#)

Powered by [craigslist](#) and [Google M](#)
(this site is in no way affiliated with craigslist or G)

[Send Feed](#)

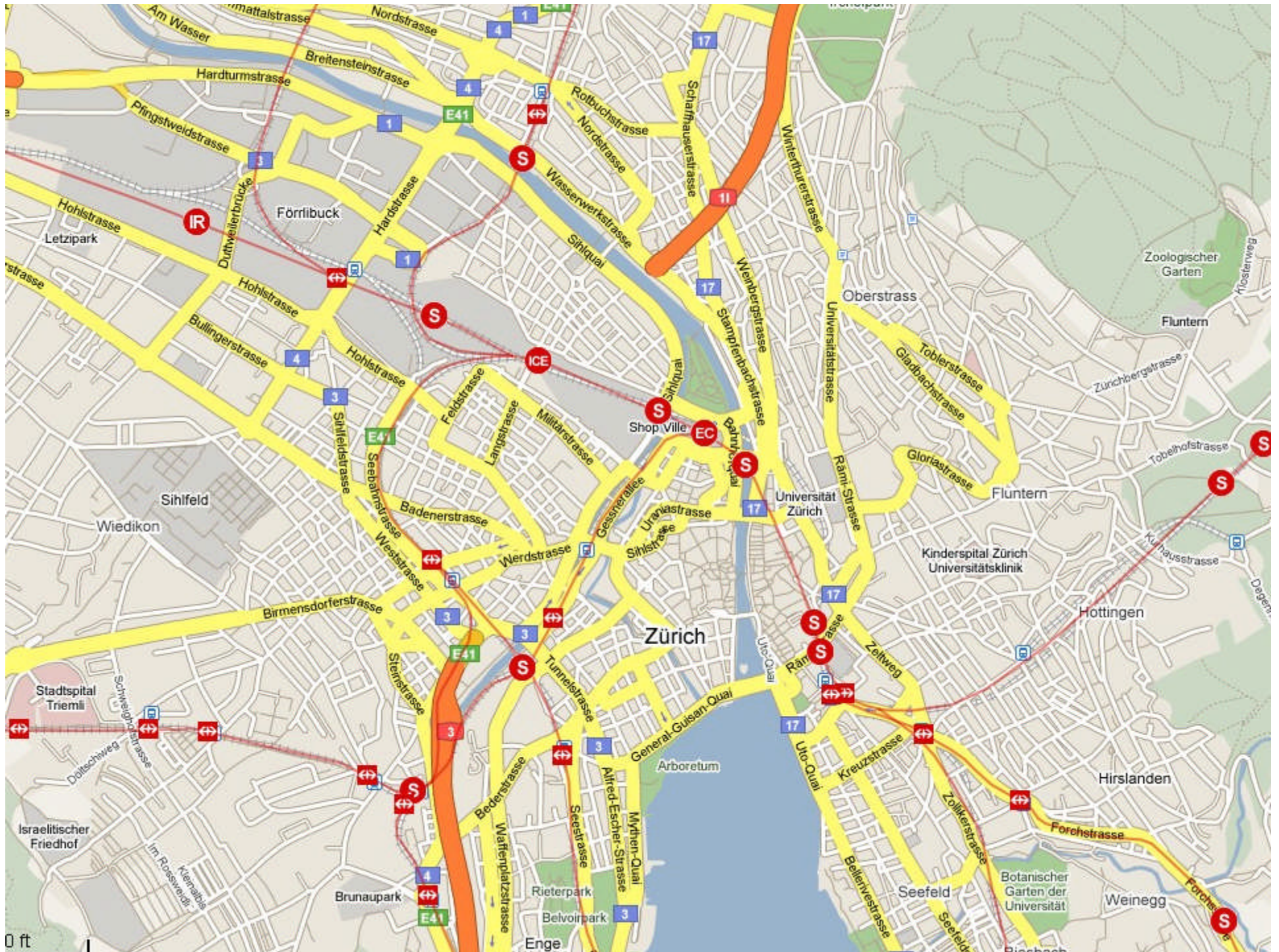
\$1650
[Studio Apt For ReNT](#)
E 61st St & 1st Ave
New York

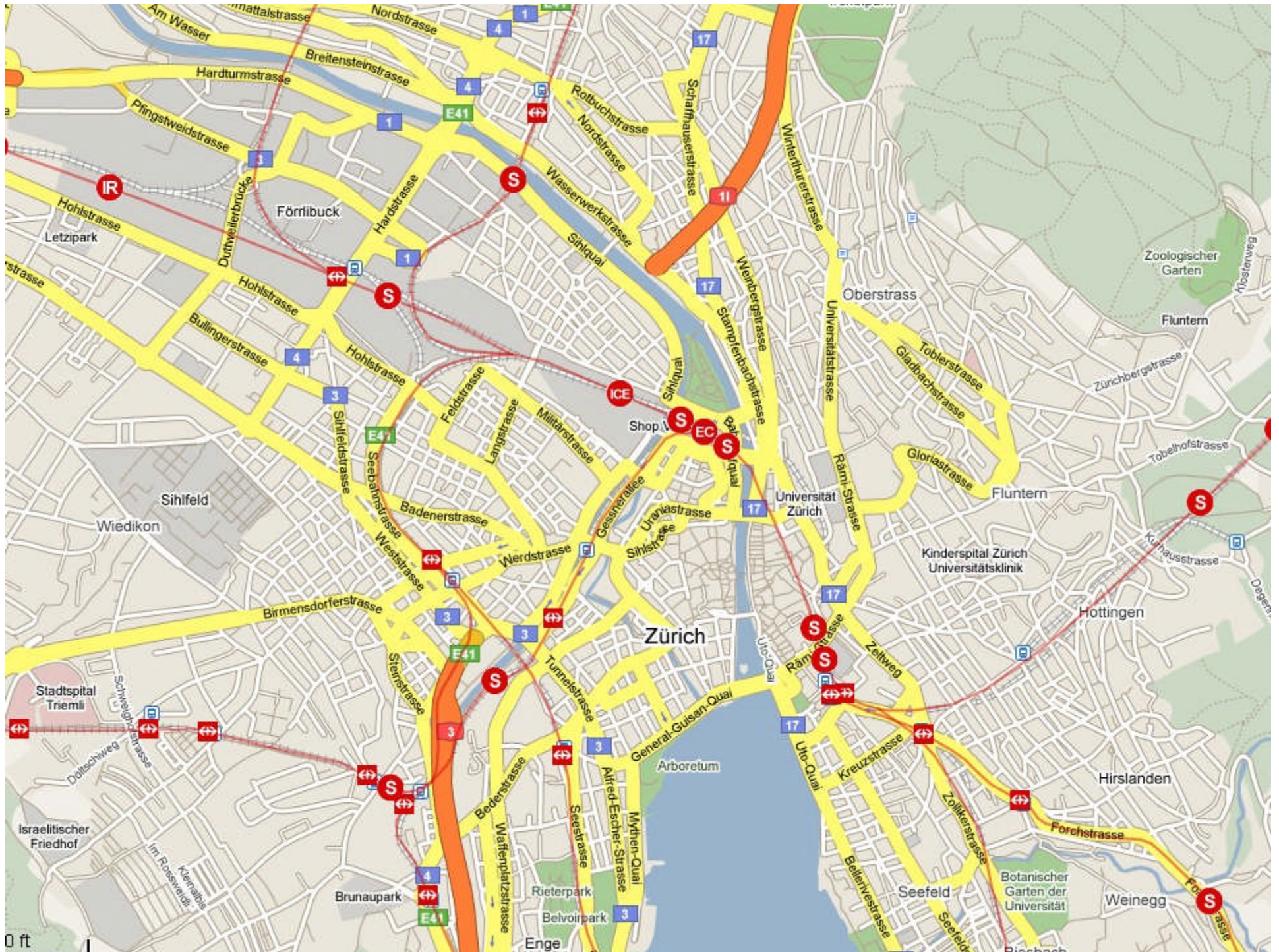
917-892-8431 / [email](#)
Directions: [To here](#) - [From here](#)

Map interface ©2005 Google
Map data ©2005 NAVTEQ™, Tele Atlas

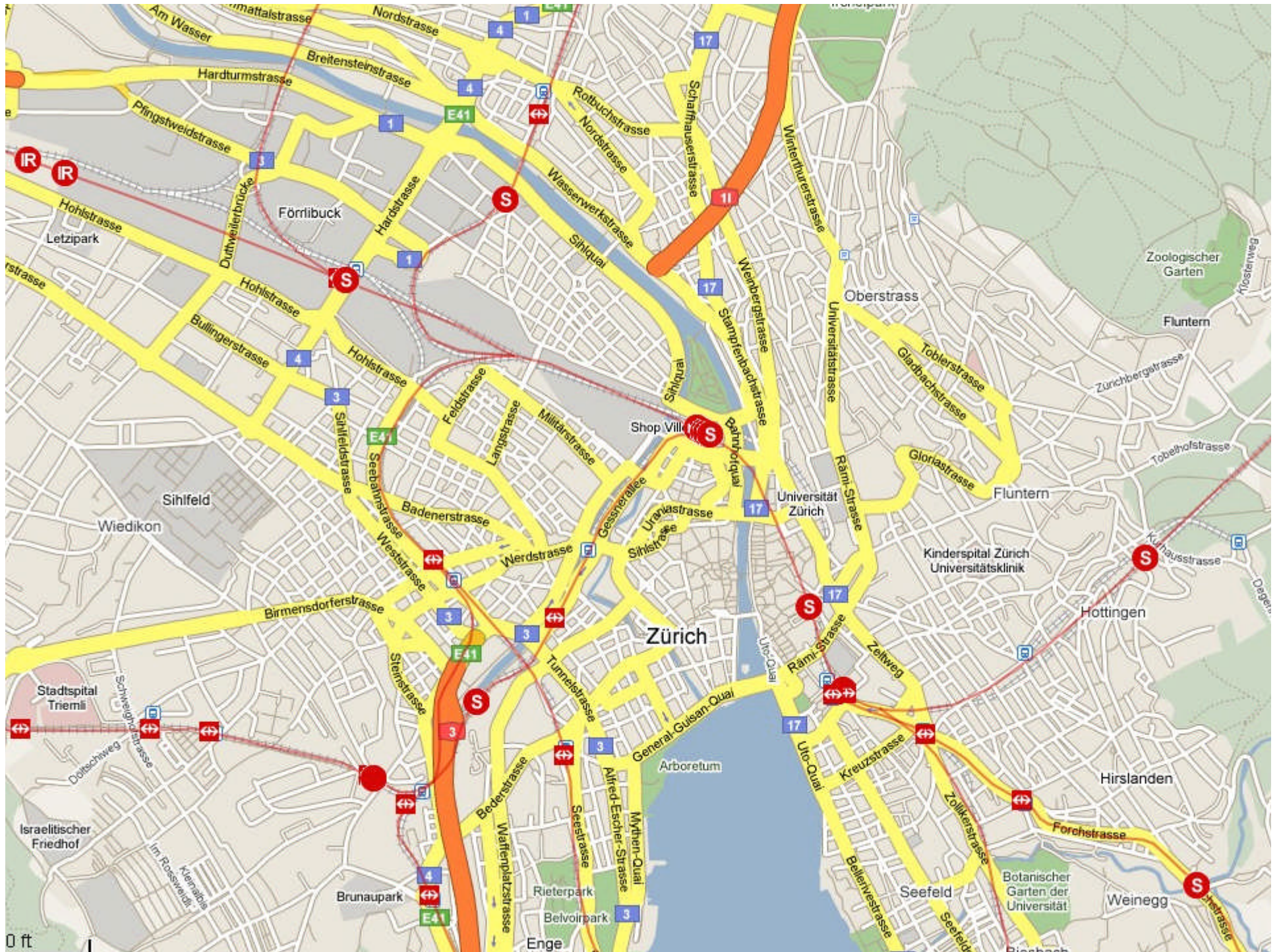
pics	price	bd	description	city	date
	\$1500	1bd	Gorgeous Furnished Penthouse with Boatslip	Aventura	4/12
	\$1800	3bd	Rent Brand New House With Option To Buy	Brookhaven	4/12
	\$1700	1bd	Garden City Village Apartment	Garden City	4/13
	\$1500		Huge 2 room studio! Must see!	Greenwich	4/12
	\$1500	2bd	Brand New 2 Bedroom	Hempstead	4/13
	\$1500	2bd	2 level, 2 bedroom sunny, cute apt for rent	Hempstead	4/13
	\$1500	2bd	Beautiful 2 bedroom apt available. Definately a Must see!	Hoboken	4/12
	\$1550	3bd	House for rent	Islip	4/12
	\$1700	3bd	Relaxed, Laid back living!	Jersey City	4/12
	\$1795	1bd	Luxury Park Foundry Loft	Jersey City	4/12
	\$2000	2bd	Spectacular 2 Bedroom Duplex! 10 minutes from Manhattan	Jersey City	4/12
	\$1500	3bd	2BA, HWY floors, W/D hook up, private balcony, close to public transp.	Jersey City	4/12
	\$1700	2bd	Beautiful Apartment In Historic Downtown	Jersey City	4/12
	\$1600	3bd	Jersey City, New Construction 3 Bed room, 2 Full Bathrooms, Garage	Jersey City	4/12
	\$1500	2bd	Gorgeous Space, Unbeatable Location	Montclair Twp	4/13
	\$1675	3bd	3 Bdrm 1 1/2 bath	New Paltz	4/12
	\$1900	1bd	Parkslope Floor Through + Laundry	New York	4/13
	\$1800	1bd	800 sq ft plus Garden in Park Slope	New York	4/13
	\$1750	2bd	Real 2 Bd apt*No Broker Fee	New York	4/13
	\$1525		Beautiful Spacious Artist Lofts *see photo*	New York	4/13
	\$1500	3bd	Three Bedroom Apt Available	New York	4/13

Powered by [craigslist](#) and [Google Maps](#)
(this site is in no way affiliated with craigslist or Google)





0 ft



popular

Google Maps Mania

15953 re
BY FEED

An unofficial Google Maps blog tracking the websites, mashups and tools being influenced by Google.

This blog is not sponsored by or affiliated with Google

search this blog:

Google™ Custom Search

Search

Ask What You Can Do

Sunday, January 18, 2009

Answering the Call to Service Map

Obama Inauguration 2009 SMS Map

How Are You Serving Your Community?

★ ● ★ ● ★ ● ★ ● ★ ● ★ ● ★ ●

Arts Civic Health Environment Education Other Totals

Every text message that you send to 56333 will make your state star glow & grow.

TEXT S1 TO 56333 FOR ARTS & CULTURE

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Gadgets powered by Google

Barack Obama's Inauguration website has produced this map showing text messages from individuals explaining how they plan on serving their communities on Martin Luther King, Jr. Day. You too can text

Top Recent Posts on Google Maps Mania

Top Posts

- 7.5** The TinyURL for Google Maps
- 7.4** The Short Flight of 1549 on Google M
- 7.1** 20 Great Google Maps - The Video
- 7.0** Yellowstone Earthquake Maps
- 7.0** Google Maps Ski Guides
- 6.4** 2008 in Maps

Topic:

Inside Google Maps Mania:

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GoogleMapsDev

Source a professional developer to build a G app!

Google Maps Mania

An unofficial Google Maps blog tracking the websites, mashups and tools being influenced by Google Maps.

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SUNDAY, SEPTEMBER 17, 2006


➤ **British Airways creates a Google Maps mashup**



The British Airways website is using Google Maps, making them potentially the first airline to create a Google Maps mashup. A section of their website promoting 'World Offers' (only departing from the UK) is now **showing a Google Maps mashup** of hotel locations for each city BA flies into. A list of cities is displayed with a "Discover hotels on



Inside Google Maps Mania:

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Geocode for Mashup Maps

Plot UK Addresses on Map via Web Service or Javascript. Try Now
www.geocode.isharemaps.com

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Image courtesy of
Google
Earth



From



NEW YORK (JFK/Newark)

Limitations?

Points on a map...

Vagueness
+
Multi-representation

Lack of semantics

Integrating
multiple data sources
is difficult

good food near lax

Search

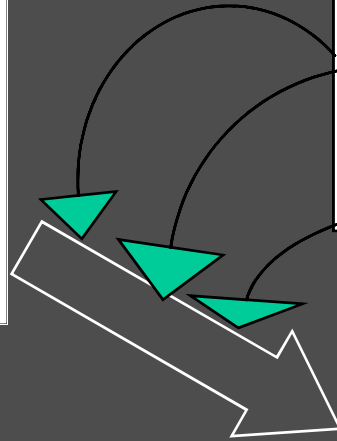
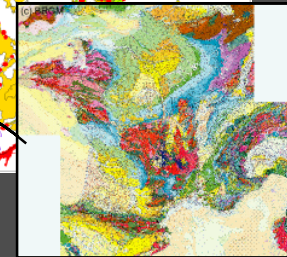
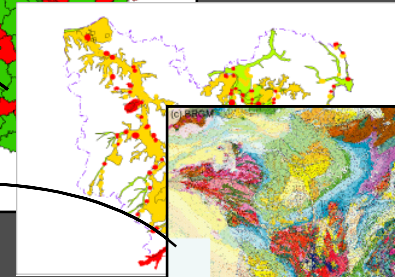
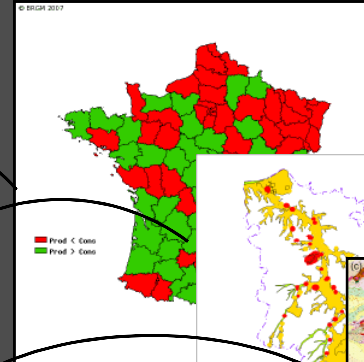
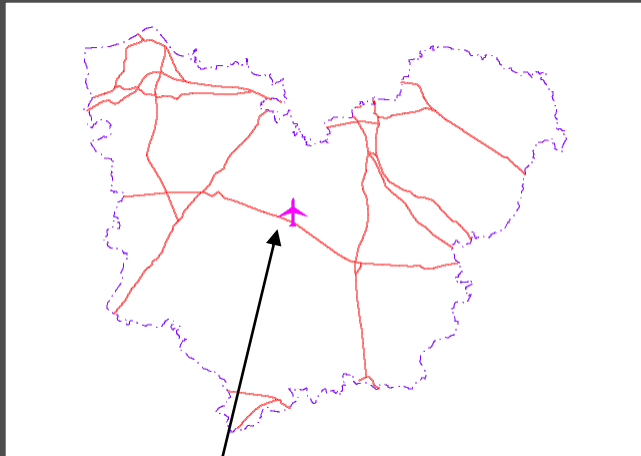
e.g., "hotels near lax" or "10 market st, san francisco"

Local

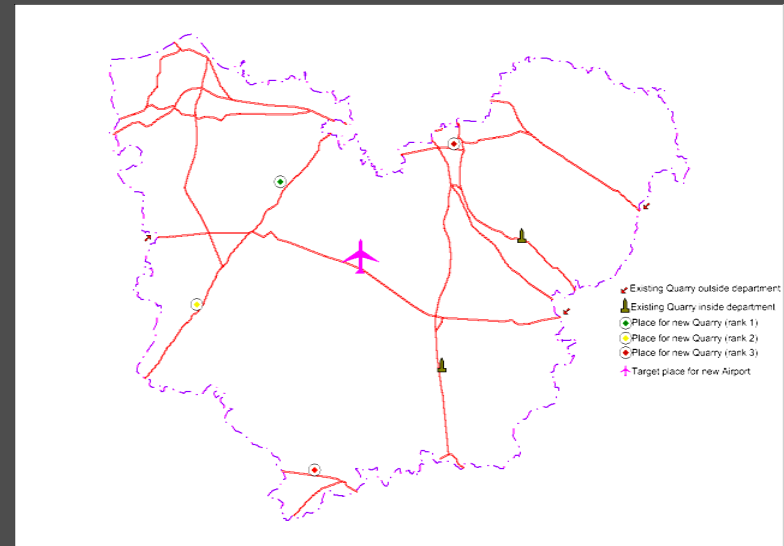
Search results for **good food** near **LAX - Los Angeles Intl Airport**

Categories: [Restaurants](#), [Caterers](#)

- A Good Food**
2423 Daly St, Los Angeles, CA
(323) 227-6283
- B Good Stuff**
131 Richmond St # C, El Segundo, CA
(310) 647-9997
- C Good Food Market**
4902 W Slauson Ave, Los Angeles, CA
(323) 292-5002
- D Good Neighbor Store**
13430 Crenshaw Blvd, Gardena, CA
(310) 558-8888
- E Audrey's Good Vibrations**
1204 Abbot Kinney Blvd, Venice, CA
(310) 838-0832
- F Good Food Catering**
8549 Higuera St, Culver City, CA
(310) 558-7666
- G Good Stuff Burgers**
11903 W Olympic Blvd, Los Angeles, CA
(310) 477-9011
- H Good Food Market**
12003 Avalon Blvd, Los Angeles, CA
(323) 756-0747
- I Good For All**
2421 W Washington Blvd, Los Angeles, CA
(323) 737-0387



Substances	Quantity(*)
Sand	110 000 tons
Granite	50 000 tons
Concrete	200 000 tons



Get quarry best location

Semantic Geo-mashups

- integrating data sources
- understanding them
- understanding the user
- Understanding the context

'My 20-hour battle through the snow'



Motorists have been stuck in lengthy jams

While motorists across Britain have been struggling in to work along icy roads, few have suffered as much as those stuck on the M11 in Cambridgeshire.

Adam Harley, who pulled on to

WATCH/LISTEN

REAL MEDIA

ON THIS STORY

- ▶ **The BBC's Samantha Simmonds**
"Hundreds of passengers are still stranded at Heathrow and Gatwick airports"
- ▶ **Jonathan Smith, E. Midlands Electricity**
"We've 30,000 customers without electricity"
- ▶ **Rebecca Rees, AA**
"People have spent the whole night in their cars"

TALKING POINT

Snow storm
Your

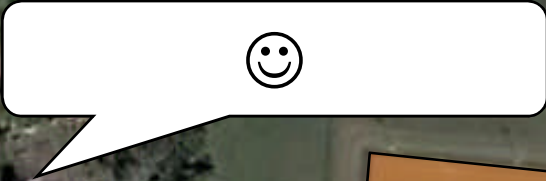
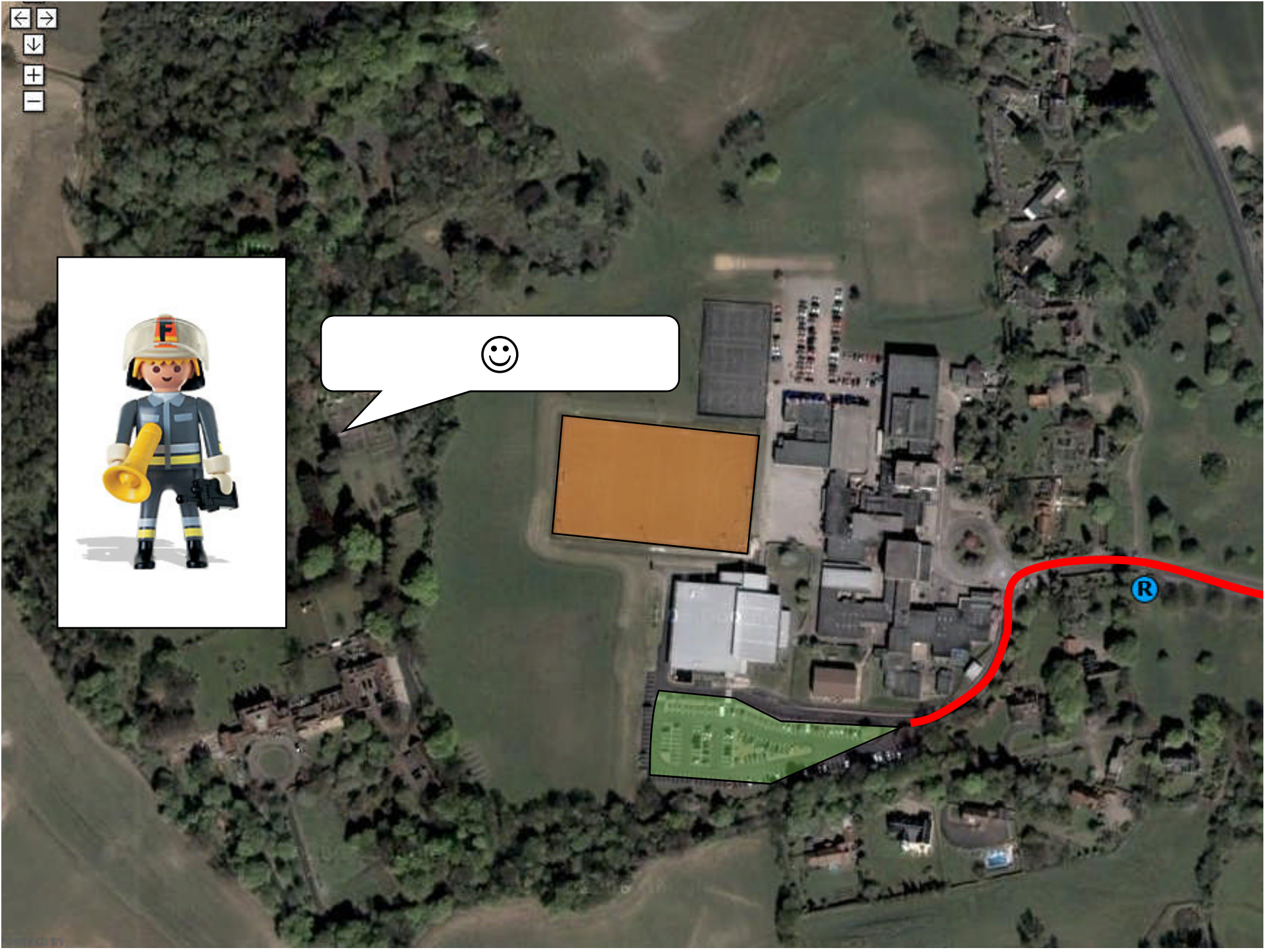




Where ?

Endangered areas?
Access paths?





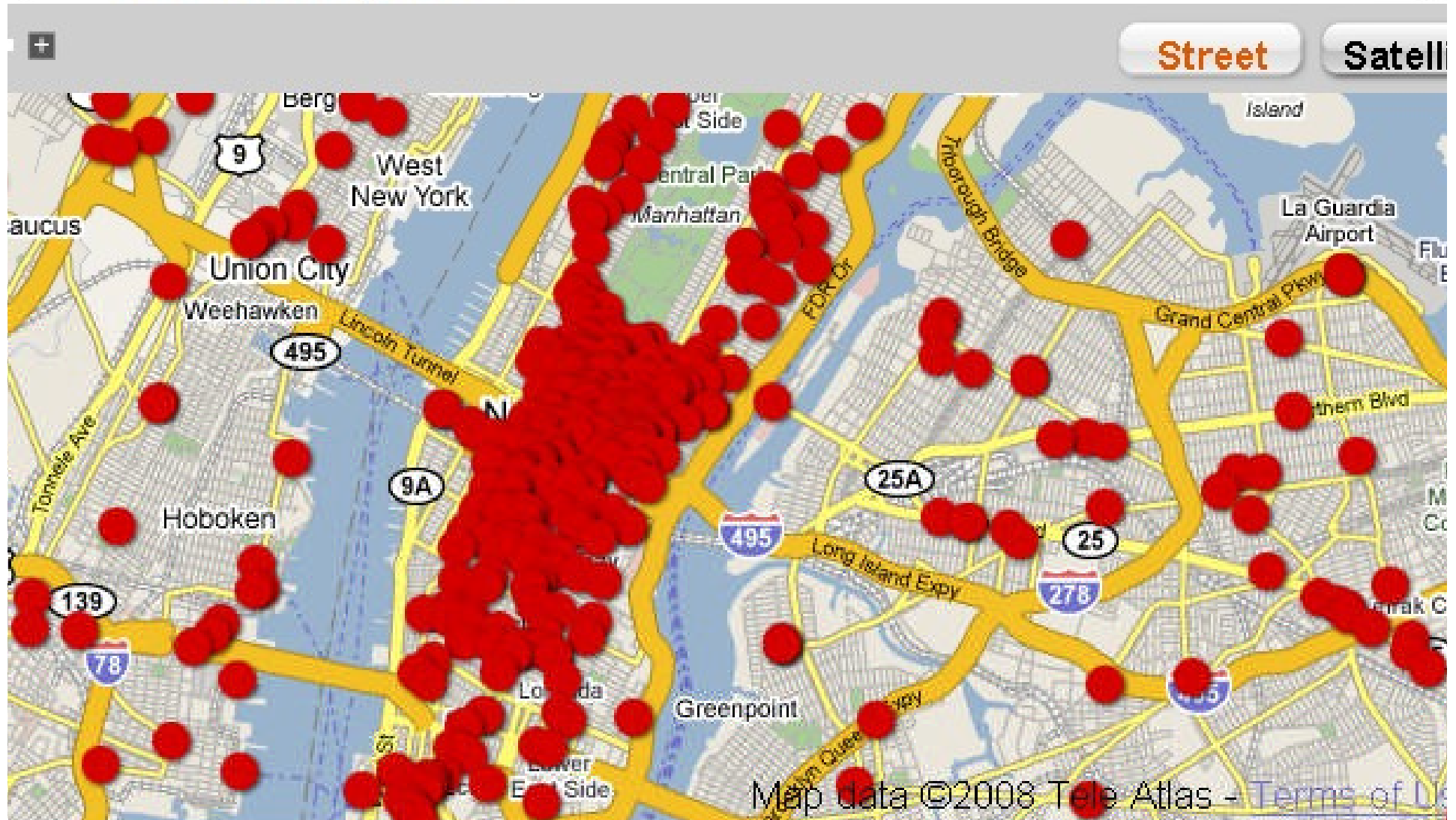
- Selection
- Representation
- Personalisation

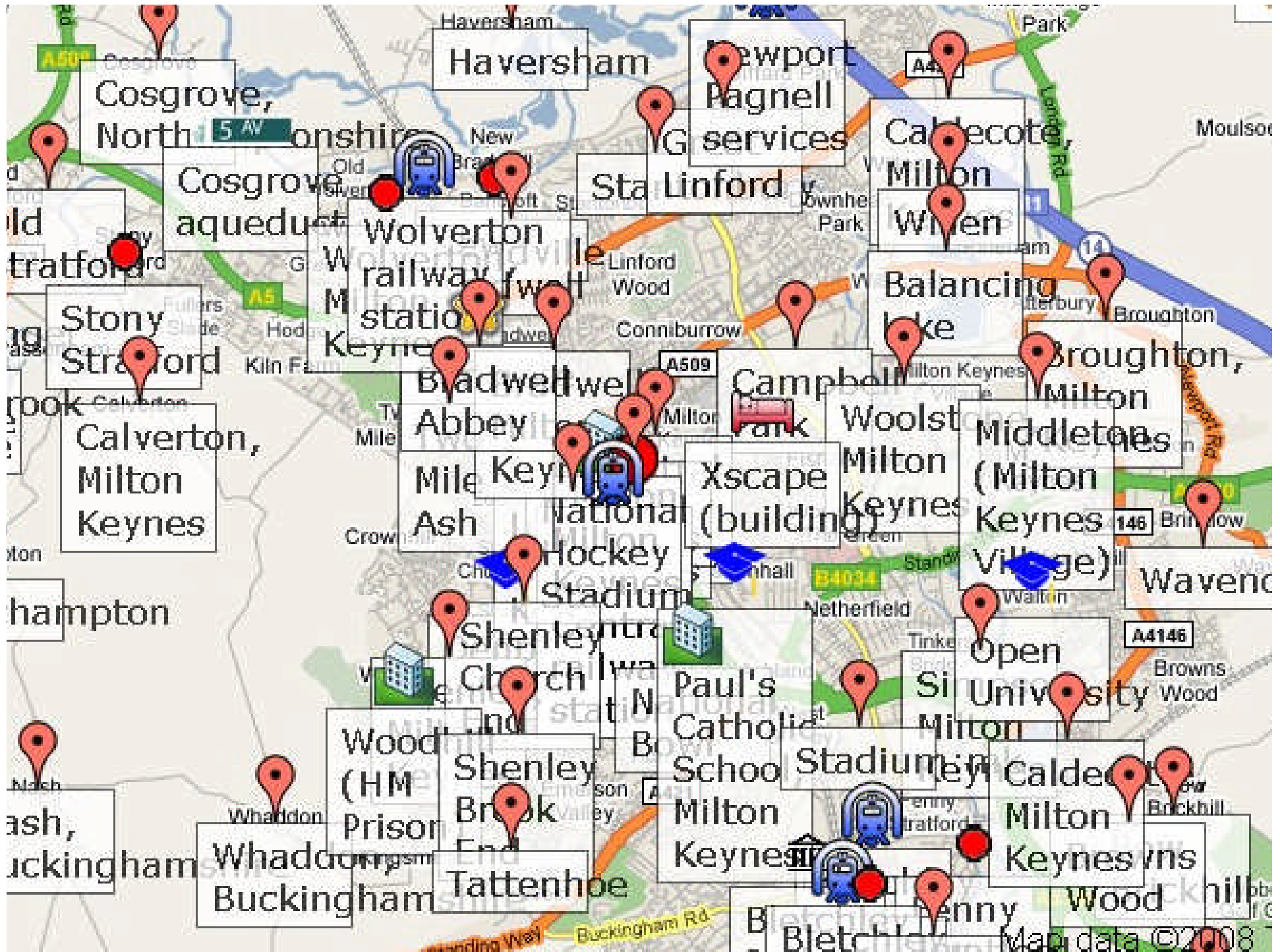
The easiest way to find interesting places, add new ones and share maps with your friends.



Up of all of Findbyclick

Sign





SWING USE CASE 3



NEW INFRASTRUCTURE SIMULATION

How does it work ?

The third use case builds on the experience from the use case 1 and 2 scenarios. With similar steps as in use case 2, this time the produced map integrates further information from known and unknown services, concerning road networks and aggregate transportation between quarry and consumption locations. Further, a service is implemented that allows ranking quarry locations, based on the map.

New project

To choose a location for your project, use

Current Location:

-0.5715902236386524 49.28977588563108

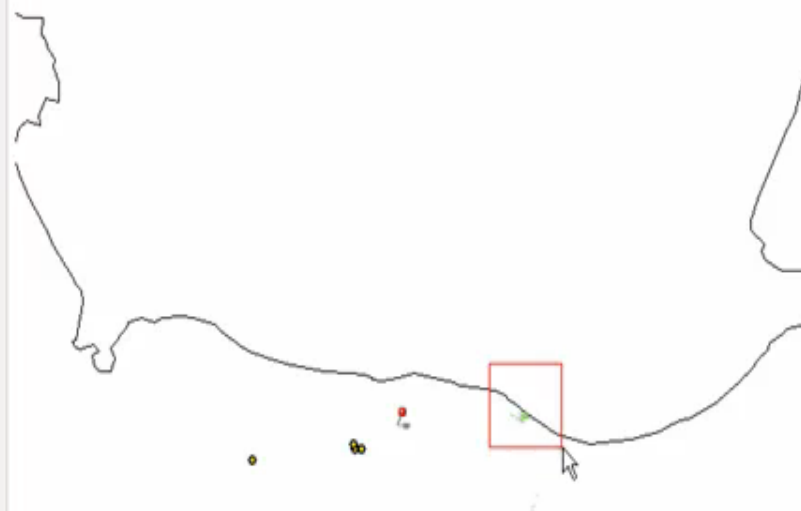
Alluvion

100 tons

Compute

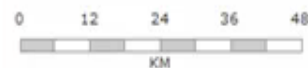


BRGM 2008



Map Layers

- Geologies
 - Rank 4
 - Rank 3
 - Rank 2
 - Rank 1
 - Rank 0
- Regions
 - Régions
- Exploitations
 - Existing Quarry
 - Sable



lon: -0.28 lat: 49.29

Extreme Tagging Systems (ETS)

- Tagging the tags
- Lightweight semantics
- Grounded in a theory

Summary of our statement

Geo-mashups – an emerging and popular paradigm,
but limitations are evident

Semantic Geo-mashups (tag-based, ontology-based) are the next big thing for web maps

Thank you!