



INTEGRATING GIS IN A NEW EMERGENCY OPERATIONS CENTRE (EOC)

The Geospatial Emergency Management (GEM) Project

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Outline

- § Who we are
- § Where we live
- § Where we work
- § The GEM Project
- § What we did
- § What success looks like
- § Questions



Calgary, Alberta, Canada



§ Population 1,120,225

§ Mayor Naheed Nenshi

§ 5.1% Unemployment Rate

§ 3.1% Population growth & Development

§ Home of 1988 Winter Olympics

§ Calgary Stampede-

World's richest tournament rodeo

§ Canada's sunniest City

§ Elevation- 3,438 feet above sea level

The City of Calgary

- § Council- Mayor and 14 Councillors
- § 16,514 staff, over 32 Business Units
- § 2013 Annual Operating budget- \$2.9 Billion
- § Lowest municipal property tax of 20 Canadian cities
- § 435 miles of pathways, most extensive in North America
- § The City maintains over 500,000 trees
- § Cleanest City in the World- Forbes



Geospatial Emergency Management (GEM) Project



GEM Project Deliverables

Identifying, collecting and converting Corporate and external feeds of information essential for Emergency Management at the City of Calgary.

Developing a Common Operating Picture (COP) tool to access and share this vital information to enhance situational awareness across all echelons of governance within the City and with external partners.

Sustaining, resourcing and supporting ongoing and future operations.



City of Calgary Project Players



- § Infrastructure & Information Services (IIS)
- § Calgary Emergency Management Agency (CEMA)
- § Information Technology (IT)
- § Municipal Emergency Plan (MEP) Members

MEP Members

Internal:

- Animal & Bylaw Services
- Calgary Fire Dept.
- Calgary Transit
- Community & Neighborhood Srv
- Corporate security
- Customer Srv & Communications
- DBA
- Finance & Supply
- Fleet Services
- Calgary Police
- Human Resources
- IT
- IIS
- Law department
- PSC
- Roads
- Waste & Recycling
- Water Resources / Services

External :

- AEMA
- Alberta Environment
- AHS
- ATCO Gas
- Calgary Board of education
- Calgary Catholic SB
- ENMAX
- Environment Canada
- ERCB
- TELUS

Visibility

- Incident Calls
- Community Service Infrastructure
- Admin Boundary Demography
 - CITY OF CALGARY EMPLOYEE LOCATION
 - COMMUNITY 3 LANGUAGES
 - SPOKEN ENGLISH VS OTHER LANGUAGES IN %
 - 2011 POPULATION (PER BLOCKFACE)
 - 2010 PETS NUMBER (PER BLOCKFACE)
 - POPULATION PER BUILDING
 - COMMUNITY BOUNDARY
 - CITY QUADRANTS
 - FIRE DISTRICT
 - POLICE DISTRICT
 - WARD
 - PROVINCIAL ELECT DISTRICT
 - FEDERAL ELECT DISTRICT
 - BYLAW ENFORCEMENT ZONE
 - CITY LIMIT
- Flood

Selections (1)

Pictometry

25%

Pictometry © 2006-2011 Pictometry

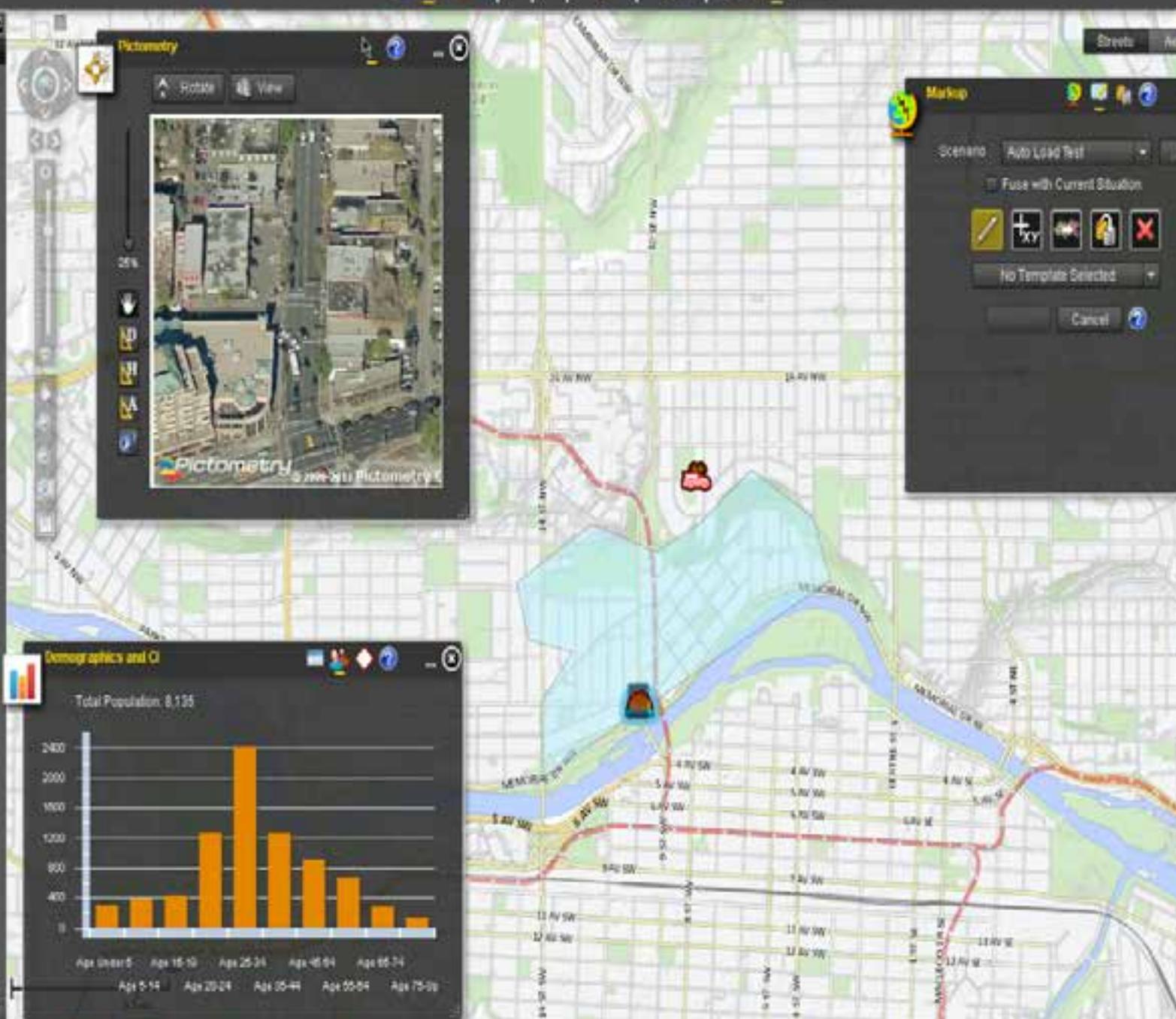
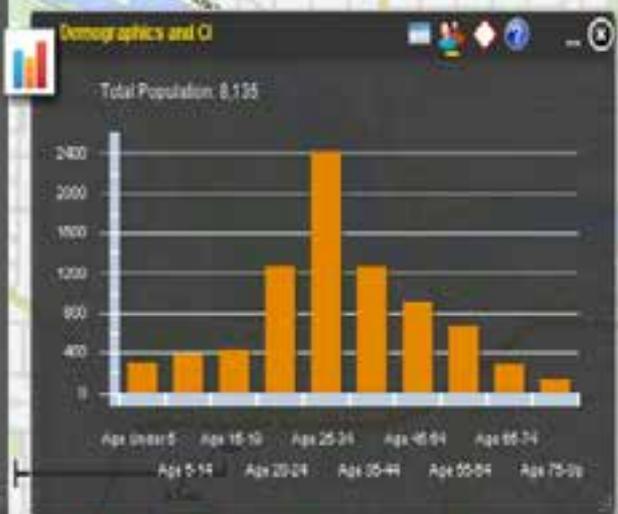
Markup

Scenario: Auto Load Test

Fuse with Current Situation

No Template Selected

Cancel



Base Mapping



Asset Mgmt Systems



Databases



Imagery



Buildings



Demographics

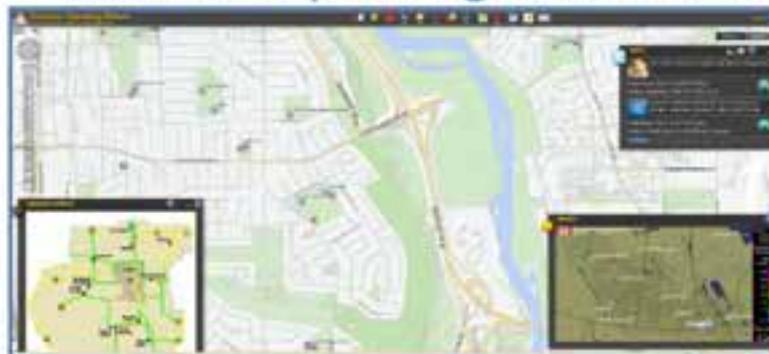


GIS Fusion & Analysis

Plans
Documents
Photos
Floor Plans
Contacts

Dynamic Data
Weather
Video
Road Conditions
Road Closures
Social Media
911, 311

Common Operating Picture Tool



The Common Operating Picture (COP)

What makes this application powerful?

- § Secure access on any browser, anywhere
- § Current, accurate and defensible data
- § Live feeds from MEP members and social media
- § Everything is on one map- collaborative
- § Intuitive tools & Analytics
- § Scalable & Configurable



Find Route



Enter an address, then press enter.

Address 1:

Address 2:

-
-
-

- Calculate Shortest: Time Distance
- Find Best Sequence Return to First Stop

2

Benefits

Better decision making based on:

- § Access to more timely and complete information
- § Faster access to data required during emergency situations
- § Single authoritative environment for emergency response
- § Interagency collaboration and communication
- § Development and integration of common standards



Success

- § “Not only does our GEM System provide ready access to real-time actionable intelligence, but it also provides the security required to protect data confidentiality. This allows us to seamlessly collaborate with partnering organizations while always ensuring the protection of sensitive information.”
Jason Cameron - CEMA Business Continuity Planner
- § “The GEM Project’s delivery of the Common Operating Picture (COP) aligns with our Business Unit’s Mission to deliver customer focused infrastructure and information solutions through leading practices, technology, and outstanding staff.”
Bruce Cullen- Director, Infrastructure & Information Services (IIS)
- § “What the City of Calgary has accomplished serves as a remarkable example for other large municipalities to follow. They’ve demonstrated what’s possible when the right technology is in place within a collaborative environment. The situational awareness they’ve achieved by placing near-real time geographic data into the hands of those who need it, when they need it, will dramatically improve public safety throughout the City.” Alex Miller, President, Esri Canada

2013 esri Canada Award of Excellence for innovation in the field of Geographic Information Systems



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Thank you



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