



DC GIS Steering Committee

August 2014

10:00 AM – 12:00 PM
200 I Street SE, 5th Floor
Washington, DC 20003
Conference Room: 5009



Agenda

- Introductions and Establish Quorum
- Approve Minutes 12/12/2013
- DC GIS News
- OCTO GIS News
- Systems Update
- Data Report
- Training Report
- CycloMedia – Street Level Imagery
- Agency Roundtable
- Future GISSC dates
- Adjourned



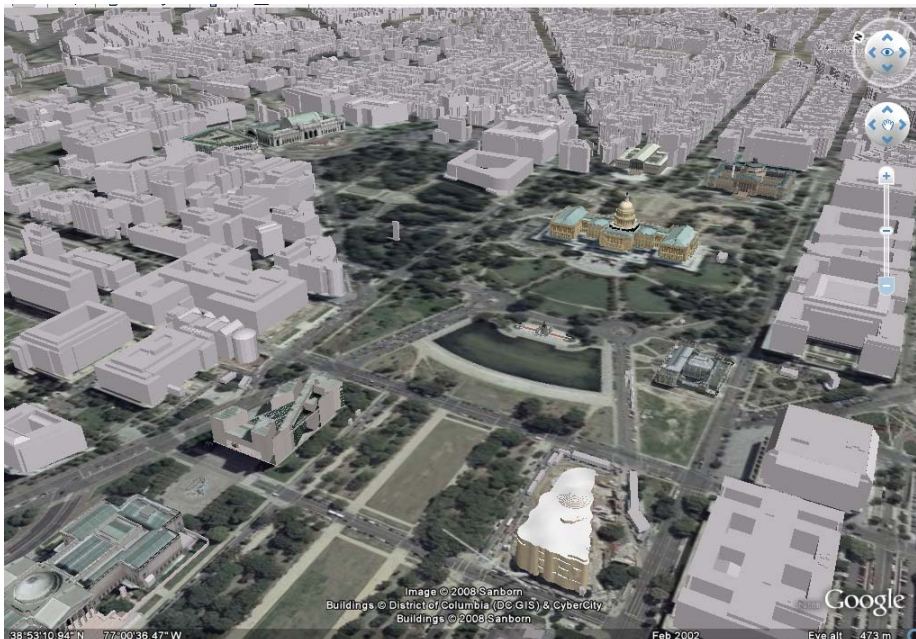
DC GIS News

Tim Abdella



DC GIS Mission

Improve the quality and lower the cost of services provided by the District of Columbia Government; through the District's collective investment and effective application of geospatial data and systems. Reach beyond the DC Government by continuing to make DC GIS data freely and publicly available to the fullest extent possible in consideration of privacy and security.



Internet:

<http://dcgis.dc.gov>

Intranet:

<http://dcgis.in.dc.gov>





DC GIS Institution

- 1995 First ortho-flight (NCPC)
- 2001 OCTO DC GIS Program
- 2002 Steering Committee [Mayoral Order](#)
- 2005 Strategic Plan (Federated Data Model)
- 2009 [Executive Order](#) expansion
- 2009 Updated GIS [Strategic Plan](#)
- 2010 Esri Enterprise License Agreement
- 2012 GIS [Business Plan](#)
- 2014 Open Data, Sensor GIS
- **2015 Sensor Project, Solid SLA**
- 2016 Greatest Municipal GIS World-wide.

GOVERNMENT OF THE DISTRICT OF COLUMBIA

ADMINISTRATIVE ISSUANCE SYSTEM

Mayor's Order 2022-27
February 4, 2022

SUBJECT: Establishment of Geographic Information System Steering Committee

ORIGINATING AGENCY: Office of the Mayor

By virtue of the authority vested in me as Mayor of the District of Columbia by section 422(1) of the District of Columbia Home Rule Act, approved December 24, 1973, 47 Stat. 790, Pub. L. 93-198, D.C. Code, 2001 ED, § 1-204.22(1), it is hereby **ORDERED** that:

1. **ESTABLISHMENT.** There is hereby established in the government of the District of Columbia a Geographic Information System Steering Committee (GISSC), to optimize the development and promote effective usage of the District of Columbia Geographic Information System (DC GIS), and assist the Office of the Chief Technology Officer (OCTO) in establishing and enforcing standards, policies, procedures, and protocols for the DC GIS, with such additional purposes and functions as set forth generally below. In addition, District departments and agencies shall have responsibilities, and may be required to take actions, arising from directives of the GISSC, as set forth generally below.
2. **PURPOSE.** The GISSC shall aim to ensure that: (a) the DC GIS is developed and maintained to achieve its full potential in providing digital maps, geographic based information, and GIS applications to enhance the planning, decision making, and business processes of District government agencies, and to provide value to the citizens of the District of Columbia; (b) all mapping and GIS activities in the District government are cost effective, interoperable, and integrated with the DC GIS; and (c) the DC GIS is used effectively within District government.
3. **SCOPE AND FUNCTIONS.** The GISSC will meet, coordinate, form sub-groups, and promulgate binding directives to: (a) provide a centrally organized authority to assist OCTO in carrying out its mandate to develop and enforce policy direction and standards regarding information technology throughout the District government, pursuant to § 1813 of the Office of the Chief Technology Officer Establishment Act of 1998, effective March 26, 1999 (D.C. Law 12-175; D.C. Official Code § 1-3401), specifically with regard to policies, standards, procedures, and protocols related to the DC GIS; (b) assign responsibility to District agencies with regard to maintaining, updating, and providing GIS data to the DC GIS, and with regard to creating GIS applications, developing GIS capabilities, meeting schedules for GIS projects, and allocating resources for GIS related activities; (c) prevent duplication of GIS activities within District government, and ensure regularity and interoperability; (d) solicit multilateral input and participation throughout the District government in developing and enhancing the DC GIS;

1840-01

and (e) promote effective usage of the DC GIS within District government, and integration of the DC GIS with District agency business processes, and other District technology initiatives, where appropriate.

4. **COMPOSITION.** OCTO, the Office of the City Administrator, the Office of Planning, and the Department of Transportation shall be permanent members of the GISSC. OCTO shall serve as permanent chair of the GISSC. Additional members shall be appointed or removed by the Mayor or City Administrator. The GISSC may establish sub-groups, such as subcommittees, working groups, and task forces, that may include both members and non-members of the GISSC. The GISSC may opt to include non-District government organizations and individuals as non-voting members of sub-groups.

5. **DEPARTMENT AND AGENCY RESPONSIBILITIES.** District government departments and agencies shall follow the directives of the GISSC with regard to any and all activities that may involve or impact the DC GIS. This may include, but not be limited to: assigning resources, changing processes, maintaining and providing data, building and enhancing databases, purchasing and upgrading hardware and software, developing applications, providing training, hiring personnel, maintaining and detaching from duplicate, non-cost effective, or non-interoperable GIS or mapping activities, transferring functions and projects to other agencies, following approved provisions, standards, and protocols, adhering to specified schedules, submitting requests for mapping GIS or mapping projects and activities, and serving on sub-groups of the GISSC or as members of the GISSC. All District departments and agencies shall coordinate with OCTO on all GIS or mapping development activities, applications, and procurements, and shall take corrective action to bring into compliance any elements or activities that OCTO or the GISSC deems to be out of compliance with standards for the DC GIS.

6. **ADMINISTRATIVE.** District government departments and agencies will provide administrative and staff support and other assistance to the GISSC upon request.

7. **EFFECTIVE DATE.** This Order shall become effective immediately.


ANTHONY A. WILLIAMS
MAYOR

ATTEST: 
BEVERLY D. RIVERS
SECRETARY OF THE DISTRICT OF COLUMBIA



What DC GIS Supports

Citywide Applications

- 311 Service Requests
- Citywide Data Warehouse
- DC.gov & Data.dc.gov

Public Safety

- 911 Computer Aided Dispatch
- I-Mobile
- Fusion Center
- MPD data warehouse

Economic Development

- Permitting
- Historic Preservation
- Office of the Surveyor
- Office of Planning Tools
- Office of Zoning Tools

OCTO ARRA Grants

- State Broadband Initiative (SBI)

Education

- Attendance Boundaries
- We are DCPS's GIS Support

Environment

- Impervious Surface Billing
- Watershed protection

Government Operations

- Sanitation
- Facilities Management

Human Services

- Lead Agency Locator
- Primary Care Locator

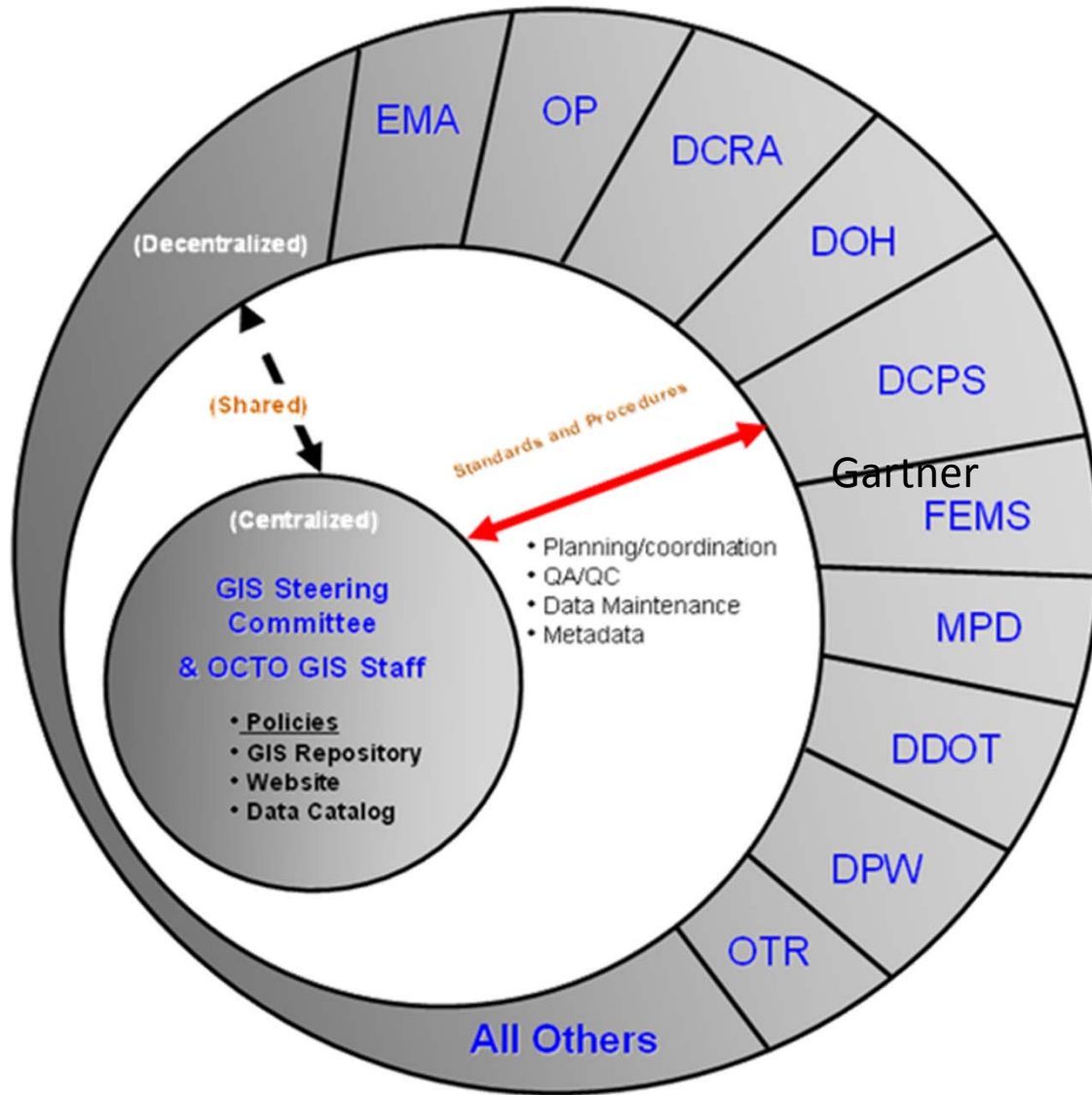
Revenue Generation

- Computer Aided Mass Appraisal
- Census 2020
- Impervious Surface Billing

Enterprise Licensing



Federated Model



- DC GIS is the Hub
- Agencies Contribute
- DC GIS:
 - Curates Data
 - Authors Metadata
 - Maintains Repository
 - Publishes Services
- Agencies & Citizens – Consume
- Solutions for a better planet



Meeting the DC GIS Mission

- Esri ELA – in negotiations
- Open Data - [Opendata.dc.gov](http://opendata.dc.gov)
- 2015 Sensor Flight
- Projects:
 - 2013 Planimetric / Ortho update
 - FEMA’s Community Rating System (CRS)
 - USGS National Hydrology Data – NHD
 - Tech Locator App released
 - Valarm – environment air-quality monitoring
 - Open Street Map – OSM
 - State Broadband Initiative – SBI
 - ConnectEd – AGO for all Public schools



OpenData Executive order

Published on July 21st, 2014 : <http://dc.gov/node/871012>


The screenshot shows the DC.gov website navigation bar with categories: Residents, Business, Government, Visitors, Education, Jobs, Online Services, and Mayor. Below the navigation is the DC.gov logo and Mayor Vincent C. Gray's name. A search bar is present with the text 'Search DC.gov'. The main content area is titled 'The District of Columbia' and 'Transparency, Open Government and Open Data Directive'. The directive is dated July 21, 2014, and originates from the Office of the Mayor. The text of the directive is partially visible, starting with 'Section 1. Introduction.' and 'a. Background. The District of Columbia government ("District") is committed to creating an unprecedented level of openness in government. Agency heads will work together and with the public to ensure public trust, and an open and effective government by establishing a system of transparency, public participation, collaboration, and accountability that increases the public's confidence in their government. The goal of this directive is to provide a tool for prescribing and institutionalizing change within all departments and agencies.'

The following slides will identify the relevant technical requirements from the Executive Order and highlight if opendata.dc.gov fulfills the requirement using the following system:

- Gray = Not Applicable
- Green = ~100%
- Blue = ~75%
- Orange = ~50%
- Red = ~25%




Opendata.dc.gov

 DC GIS Open Data

Search for open data

WITHIN MAP



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the user community

DATA

- [Administrative and Other Boundaries](#)
- [Business and Economic Development](#)
- [Cultural and Society](#)
- [Demographic](#)
- [Education](#)
- [Elevation](#)
- [Environment](#)
- [Facility and Structure](#)
- [Health and Human Services](#)
- [Historic](#)
- [Location](#)
- [Planning Landuse and Zoning](#)
- [Property and Land](#)
- [Public Safety](#)
- [Public Service](#)
- [Recreation](#)
- [Transportation](#)
- [Utility and Communication](#)

Using This Site

Search to discover data, **explore** using the interactive map and **access** via downloads and API's. [Click for a complete list of DC Data.](#)

Downloading Data

Data can be downloaded in a variety of formats: Shapefiles, KML for GIS applications, and CSV for tables and spreadsheets. API's provide access in REST or GeoJSON for use within applications as direct feeds.

Background

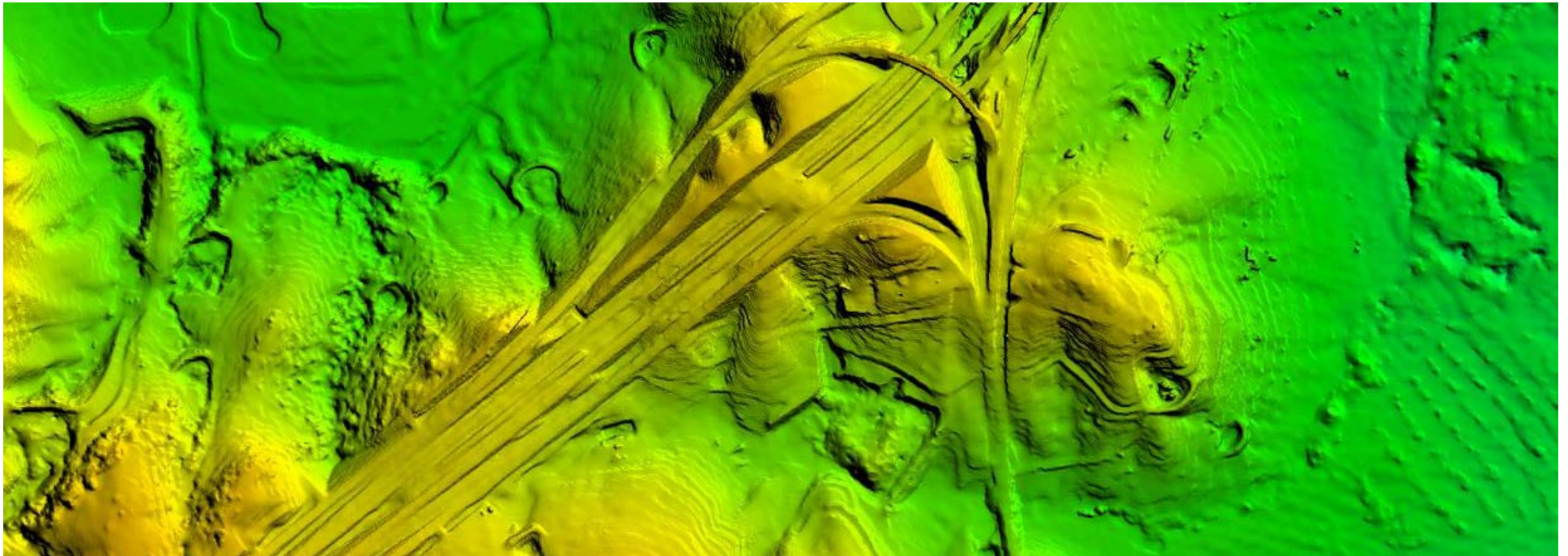
For years the *District of Columbia* has provided public access to city data through the Internet. The District of Columbia's Geographic Information Program (DC GIS) is utilizing technology to increase public access to the vast amount of information it creates and received from our agency partners. In doing so, we hope residents can make more informed decisions about their government and our community. This is a Open Data site for making DC GIS's data more discoverable, explorable and accessible.

[***](#) [Accessibility](#) [Privacy and Security](#) [Terms and Conditions](#) [About DC.gov](#) [About DC GIS](#) [About OCTO](#) [Contact Us](#)



Sensor Data?

- High Precision multispectral data (3 inch pixel raster)
- Oblique Imagery
- LiDAR – **L**ight **D**etection **A**nd **R**anging
 - Captured at 8 points per meter





OCTO GIS News

Tim Abdella



Staffing Updates

- New GIO
- Matt Crossett – Thank you
- Actively Hiring:
- FTE Adjustments / Additions:
 - Eva Stern – Congratulations
 - Josh Lay – Congratulations
 - Frank Wang – Systems Administrator
 - Developer Lead – Offer out
 - Public Safety Liaison – in process
- Other Positions
 - Peter Kessler – System Administration
 - Kelly Montague – New Cartographer
 - COGO GIS Data Analyst
 - FTE Developer– Interviewing



Reorganization

Citywide · Data · Warehouse





Vision

- Geospatial-data Infrastructure Services
 - Focus on **Data**
 - Connect, Curate*, Create – Disseminate
 - Development resources focused internally
 - Less agency apps --> more agency enablement
 - Educate, Inform and Support
 - Truly Open Data....



Digital curation is the selection, preservation, maintenance, collection and archiving of digital assets. Digital curation establishes, maintains and adds value to repositories of digital data for present and future use. - *wikipedia*



Highlights: OCTO GIS Team to Cover

- Migrations / updates:
 - KMZGT Tool / GME (Google Map Engine)
 - MAR Maintenance Tools
- Systems
- Data
- Training



Systems Report

Frank Wang

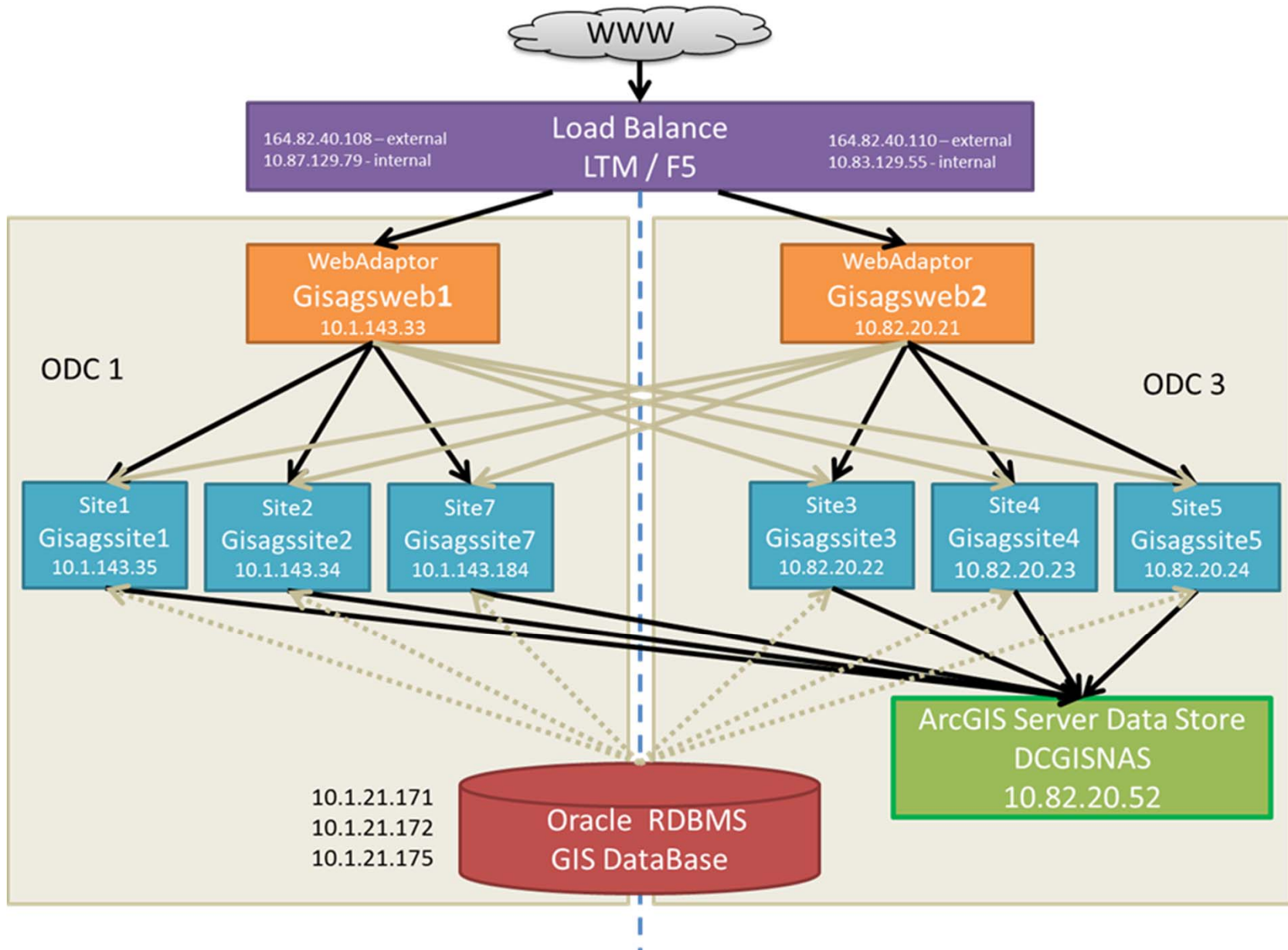


Key Efforts

- New GIS Systems Administrators:
 - Frank Wang
 - Peter Kessler
- Design and implement a new GIS System Architecture
- Develop new GIS Server monitoring approaches
- Migrate Citrix environment to XenApp 6.5
- Migrate DCCentral database to Oracle Grid

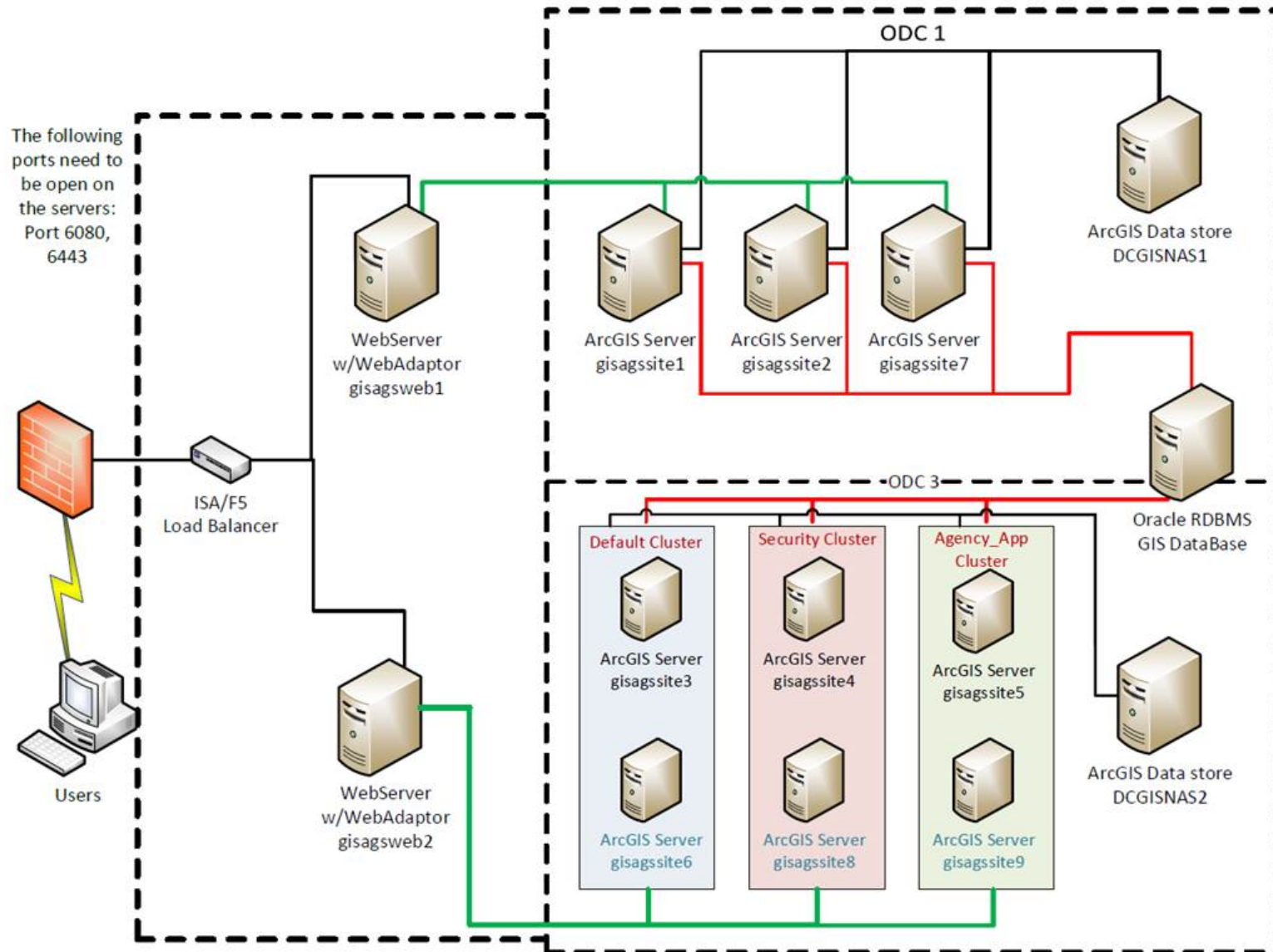


Past Architecture





Hardened Architecture





Future Architecture

- Designed from scratch
- Follow all best practices
- A true reference implementation for Esri
- Engage all players:
 - DC GIS Staff knowledge
 - Esri System Architecture Teams
 - OCTO Technology Teams
 - ECIS, CWITS, NOC, DC-NET, CAB, ARB



Improved monitoring

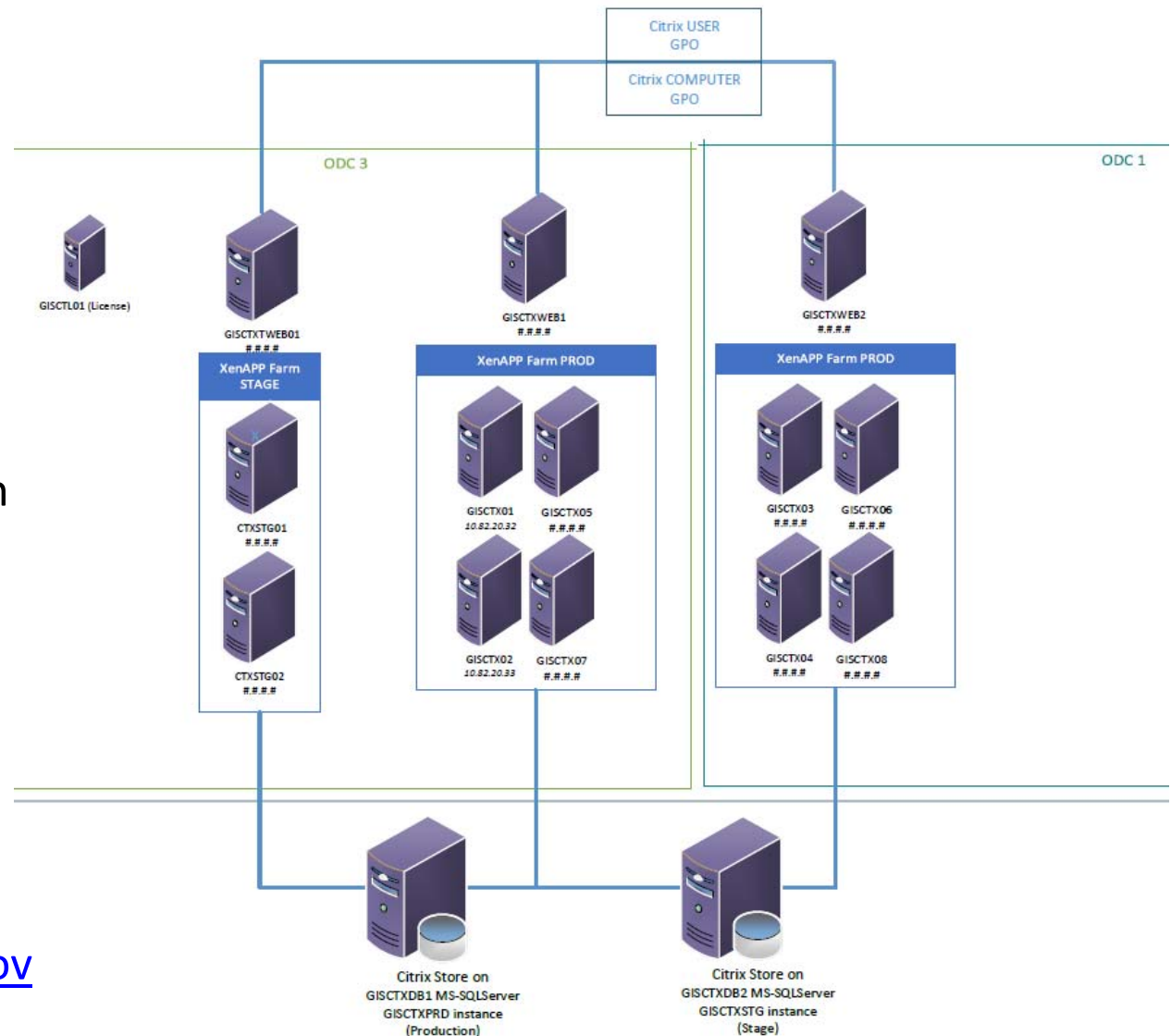
- Revise sitescope
- Install Esri Server Monitor
- Weekly IIS log analysis
- Goal: higher availability





Citrix XenApp 6.5

- Supported Version
 - ArcGIS Desktop 10.2.2
 - Updated DC GIS Tools
 - Connected to GRID
 - High Capacity
 - Redundant Architecture
 - Staging environment
 - Updated documentation
 - Same access URL
 - New ICA client needed
-
- Contact:
 - Customer Service
 - Peter Kessler
 - Peter.kessler@dc.gov





Migrate to the Grid

- The Grid:
 - Highly available Oracle instance
 - Replaces DCGISCENTRAL
 - All Databases will centralize here
- No longer uses ArcSDE connection
- Oracle Client 11g(32-bit) is required
- Connection information and help will be coming soon



Data Report

Mario Field



Updated Datasets

- Artist in Fellowship Program
- Artist Grants in Aid
- Arts in Education Program
- Building – 3d
- Building – 3d roof detail
- Broadband Adoption Rate – Tract
- Broadband Adoption Rate – Ward
- Cama – Condominium
- Cama – Commercial
- Cama - Residential
- Camera
- Charter School
- DC Circulator Stop
- DHS Service Center
- DYRS Facility
- Early Polling Place
- Great Street
- Halfway House
- Historic District
- Historic Landmark Element
- Historic Landmark
- Historic Landmark Site
- Liquor License
- Land Cover - 2011
- Mobile Roadway Vending Location
- National Park
- Notary Public
- Parking Beat
- Polling Place
- Public Housing Area
- Public School
- Public School – Closed
- Public Art
- Retail Site Plan
- Single Member District
- Street Centerline
- Street Segment
- Street Light
- Street Tree
- Wireless Hot Spot



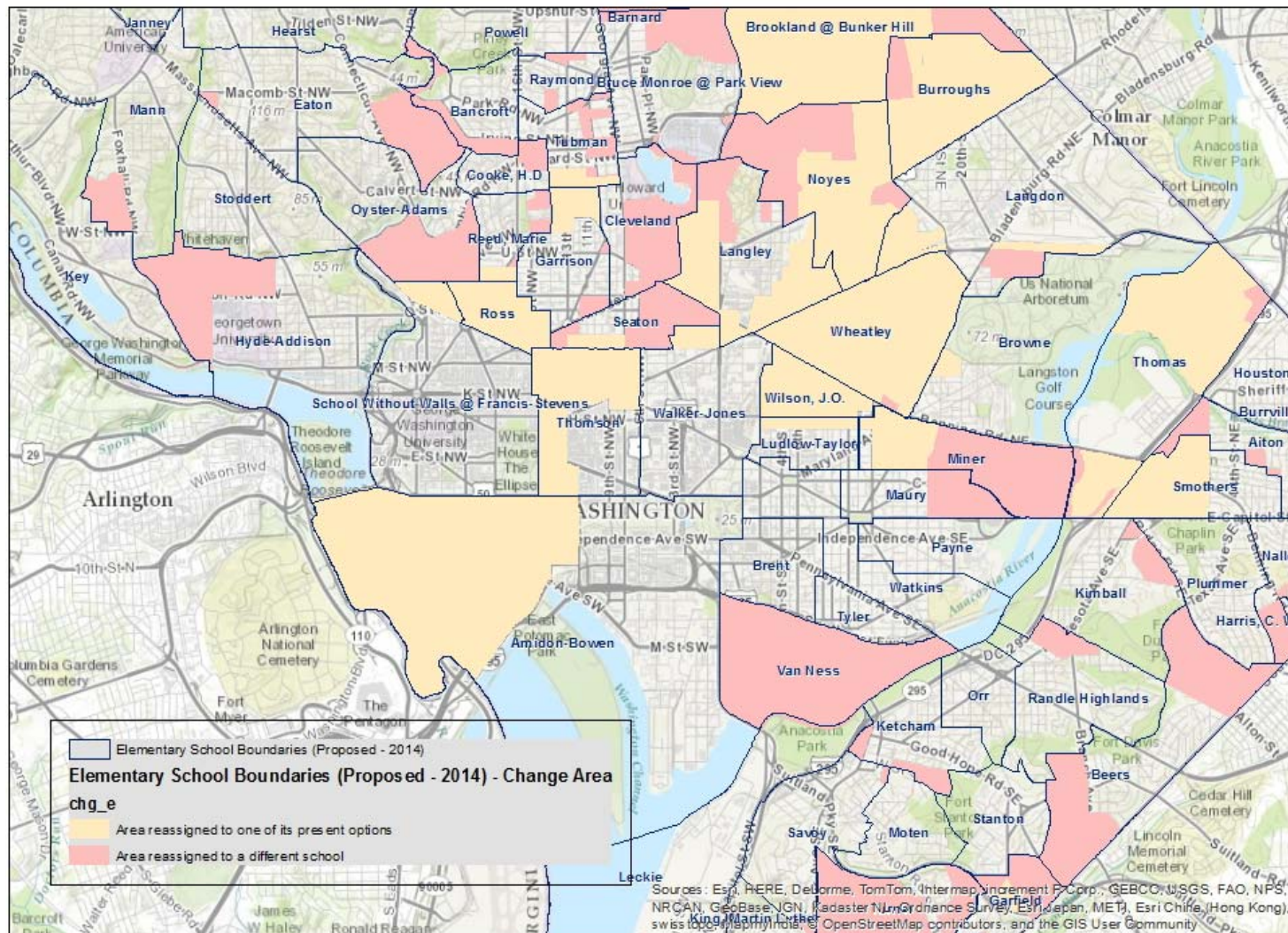
Planimetrics 2013 - Summary

- Acquisition:
 - 10/15/13: P56 Area Acquired
 - 10/18/13: Remaining DC Area Acquired
- Product:
 - 6-inch pixel orthophotography (24-bit, true color)
 - Digital Layers: Building, Bridge and Tunnel, Geodetic Control, Obscured Area, Railroad, Street Centerline, Road, Sidewalk, Wooded Area, Grate, Stair, Swimming Pool
 - All digital layers collected to new DC Boundary as defined by the boundary stone effort. (410,000 more sq feet)
 - Given the data's history, had to relax some topology rules
 - DDOT will get centerline geometry updates (500 records)



Final School Boundaries

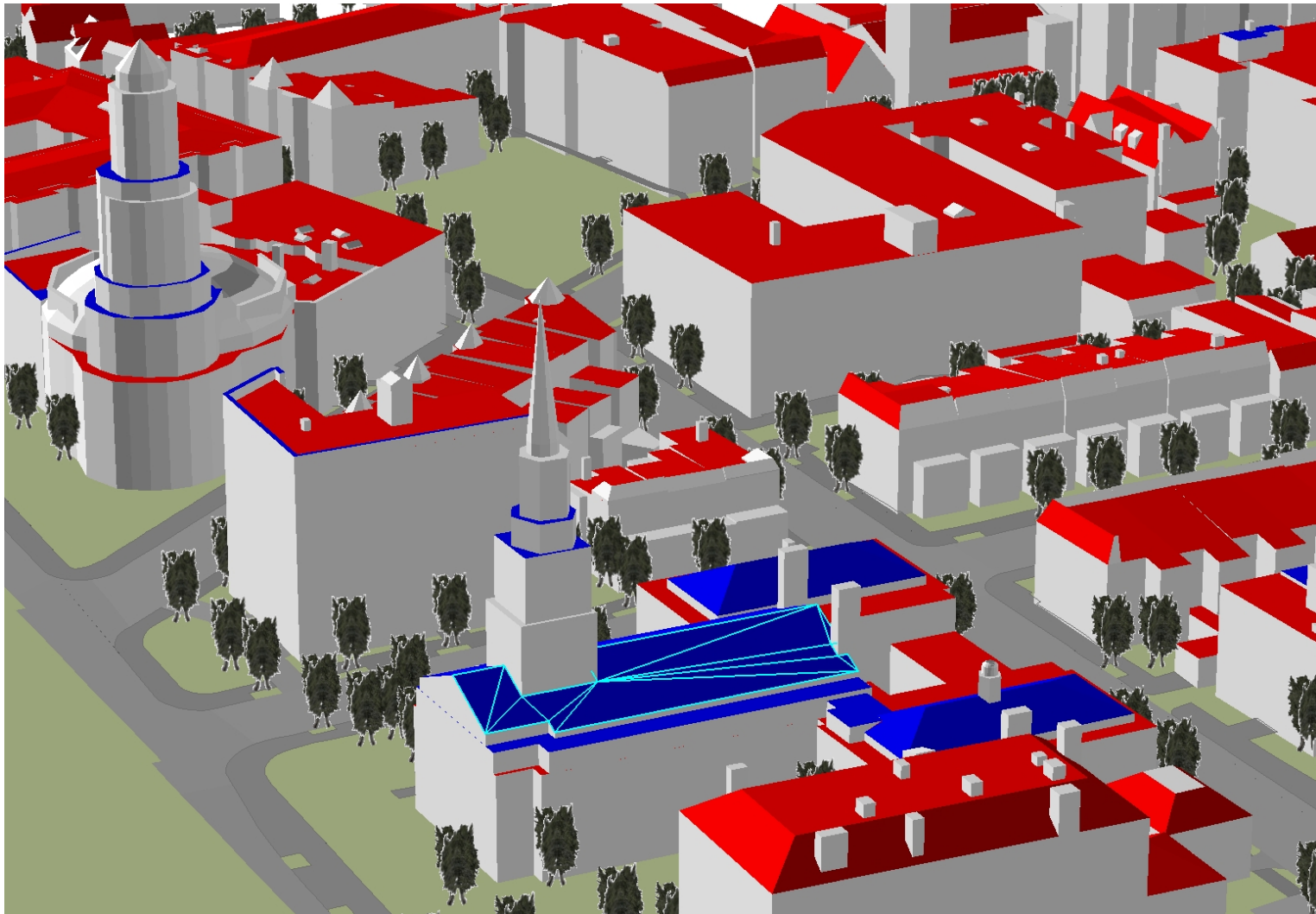
- Elementary, Middle, and High School
- Advisory Committee on Student Assignment June 2014





3D Buildings

- Entity and Roof Detail
- Height, Surface area, Slope, and roof type attributes





Next Data Load

- Planimetric - 2013
- Metro Line
- Metro Station
- DPR Park
- Great Street
- Triangle and Median
- Clean Team Service Area
- Elementary School Boundary – Final
- Elementary School Boundary – Change Area
- Middle School Boundary – Final
- Middle School Boundary – Change Area
- Senior High School Boundary – Final
- Senior High School Boundary – Change Area



Training Report

Eva Stern



CLD Training Update

- Regular classes FY14: 103
- MPD special classes at CLD: 23
- Other special classes not CLD: 13

Total attendees: 139

- OCME, DBH, OSSE, DDOE, CFSA, DDOT, EOM, DOH, Office of Victim Services (EOM), DMPED, HSEMA (Fusion Center), OCP, DCPL, OAG...



Outreach

- Presentation to DC teachers at Carnegie Academy for Science Education (Carnegie Institution for Science)
- Presentation to Anacostia Watershed Steward Academy (with Prince George's County)
- TAGS/Alice Deal MS
- MapStory Community Leaders



CycloMedia Street Level Imagery

James Graham

DDOT



Cyclomedia's
Globespotter:
A New Tool For DC Gov



Immersive GIS Data Collection, Creation, Verification, Visualization, Analysis...



James K. Graham

Outline

- What is it?
- How it's different than Street View
- Brief Demo
- Upcoming Training
- Contact



Globespotter

- An interactive, web-based application that provides access to panoramic street level images.
- Imagery collected Fall 2013 to Summer 2014.
- Data captured every 5 meters.
- Pedestrian faces and license plates blurred.
- For DC Government employee use only.*
- [Example](#)

**Consultants performing work on active DC Gov contracts excepted.*



Globespotter vs Street View

Globespotter

- Locate address
- View street-level imagery
- Access “historic” images
- Accurate x,y,z measurements
- Export point, line, poly (3d)
- Overlay GIS Web Services (WFS)
- ArcGIS Desktop Plug-in
- **Freely extract/derive data**

Google Streetview

- Locate address
- View street-level imagery
- Access “historic” images





4.61m

4.61m

Cyclomedia: 15 Ft 2 in

DDOT Measured : 15 Ft 4 in





2.02m

2.62m

Cyclomedia: 8 Ft 7 in

DDOT Measured : 8 Ft 8 in







4.03m

18.23m

4.77m

63.7°

64.3°

184.61m²

63.0°

63.3°

13.03m

Upcoming Training


- First Training: September 2, 2014
- Request for training here: <http://bit.ly/globespotterdctraining>
- Request account here: <http://bit.ly/globespotterdcaccount>



Contact Info

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District Department of Transportation
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Future Steering Committee Dates

- November
- February
- May
- August

or

- December
- March
- June
- September



Round Table

Open Forum



Round Table

- James Graham – DDOT
 - AGO – UFA Group Briefing Book
 - On Solutions page – Anthony Send link
 - Needs to be hosted on our servers
- Sheryl Gonzalez - MPD
 - Use MAR Heavily – BI Tools, IBM Cognos
 - AWARE – integrates many data feeds into single view



Round Table

- Kate Mereand-sinha– DCRA
 - Program Staff
 - How to become more integrated
 - COO – can provide
 - Digital Submission for Developers – Project Dox



Round Table

- Gregory Cotten– DGS (Acting CIO)
 - Archibus – Suit of tools – Poly lining
 - Space and lease tools
 - Hook into HR manual to know where people sit
 - Hook into Network to know each network location
 - Will open as a web-read only solution
 - Manage land outside of DC as well
 - Need more data:
 - Parcels – VPM and OTR provide this data
 - Sustainability – Marc Chambers (Energy Usage)....



Round Table

- Susie Cambri – DMHHS
 - Global Exchange and outlook
 - Linked to DGS Archibus would be nice
 - Would like agency data to “be better”
 - Quickbase opendata inventory
 - High Value data



Round Table

- Nina Semwanga - FEMS
 - DC Google Globe – having issues
 - Would like mass deploy to all agency machines
 - All FEMS systems
 - Getting license issues
 - Working with MO & Team to document and Fix
 - DDOE, FEMS, MPD, OUC
 - Like live data – “buggies are”- red SUV’s
 - NCR-GDX for data sharing
 - Live Data feeds from OUC – GeoEvent Processor



Round Table

- Darius Braxton - DDOE
 - Application updates for WQD Mobile App
 - Internal meeting scheduled to discuss agency apps
- David Koehler – DPW
 - Started the transition away from DCGIS to Agency
 - A little up-front pain
 - Nice to have full control over apps
 - DCGIS still there for support
 - Apps for trash collection (Xora) is an example



Adjourned

Thank you

Links to past DC GIS Steering Committee Meeting Agendas and Presentations are available at: <http://dcgis.dc.gov> click on [DC GIS Steering Committee Link](#) on the bottom of the page.