From 0 to 60 in 2 Years: **How Smart Can Go Past Being a Buzzword and Become Imbedded in Safety, Planning, and Engineering**
Sandy Springs, a city in Georgia

- Incorporated 2005 (still a teenager…)
- Urban/Suburban mix
- HQ to Newell Rubbermaid, UPS, Arby’s, and Mercedes
- Three major hospitals
- 2 major freeways and 1 state route for good measure
- Contract/PPP City (PD, FD, and CM only City Staff)
  - Community Development (Planning/Zoning/Economic Development/Code Enforcement) – responsible for all plan reviews (private developments and CIP projects) and all zoning/planning, inspections for private developments only
  - Public Works (Traffic/Maintenance/Operations) – responsible for all maintenance and operations, inspections of CIP projects only
Sandy Springs, a city in Georgia

- City Manager and City Council/Mayor
- Site specific zoning (now form-based zoning with Unified Development Code)
- 100,000 population (daytime doubles)
- 38 sq miles
- 137 signals
- 80 cameras
- 315 miles of road
Smart Cities, so what?
Smart, Smart-er, Smart-er-est, Smart-er-est-er-er...
Smart Cities, so what?
Smart, Smart-er, Smart-er-est, Smart-er-est-er...

What does it all mean? Where does it stop?!
• Boeing 767, 0-60 in <0.5 seconds
• Tesla, 0-60 in 3.11 seconds
• 1960 Triumph, 0-60 in 29.9 seconds
• A city, 0-60 in 63,072,000 seconds...(years)
The People
Smart City because Smart Staff

Thinking about the people, not the agency/company they represent

- Planning
- Office Engineering
- Field Operations
- People Management
Planning
Planning

• Old County code had been hodge-podged since inception
• New Unified Development Code leapfrogged into the future
  • Bicycle parking (short vs long term, Land Use dependent, Size dependent)
  • Sidewalk standard 6’ width
  • Roadway cross section for each road, from end to end
    • Interdepartmental team – planning, public works, arborist, utilities, maintenance, engineering
    • GIS look up tool
  • Form based zoning
  • Regulations to create grid system going forward
  • Not one-size fits all approach, portions of code applicable per threshold
  • Developer input
  • Traffic Impact Guidelines (start towards blended LOS/VMT approach)
• General Plan work program
  • Robust with essential studies being planned to be completed in the short term
• Training planning commission
BUILD: Sandy Springs Seminars is a series of seminars presented by the Community Development department intended to educate the public on the current policies, procedures and expectations of the City of Sandy Springs, GA as it relates to construction within the jurisdiction.

“Inspections 101” was this morning’s session providing a look into what is involved with the permitting process, third party inspections, and what the City inspectors will be looking for during their building inspections.

Marian McClusky, Jill Swlechichowski and Victor Manuel Obregon like this.
What 300 trips look like...

- 17,000 sqft Bank w/Drive-Thru
  - three Chase banks
- 25,000 sqft USPS
  - two USPS distribution/mail office
- 192,000 sqft General Office Building
  - slightly smaller than Mercedes new HQ
What 300 trips look like...

- 3,000 sqft Coffee Shop
  - slightly larger than typical Starbucks
- 6,000 sqft Fast Food Restaurant w/Drive-Thru
  - slightly larger than typical Chick-fil-A
- 16,000 sqft Supermarket
  - half the size of ALDI
- 16,000 sqft High-Turnover Sit-Down Restaurant
  - four Flying-Biscuits
All crashes in Sandy Springs from 2014 through 2016
Office Engineering
Office Engineering

• Public engagement approach
  • Meetings start with venting/QA
  • Community feedback (what people want, need, would like, don’t want)
  • Listen prior to making decision
  • Use round numbers
  • Use metrics that are relatable

• Big Data (and limitations)
• Waze integration
• Policies and SOPs
• GIS Tools
  • Integrated data, informed decisions
• SCOOT = 15% AM and 7% PM
Tempers flare at Sandy Springs traffic forum over Braves stadium

By Geoffrey A. Cooper, The Atlanta-Journal Constitution

Sandy Springs residents said they are frustrated with the direction city traffic will take once the Atlanta Braves make Cobb County their permanent home next year.

About 250 residents packed the theater at Riverwood International High School
Some residents shouted down public officials, particularly Sandy Springs Mayor Rusty Paul, as he tried to clarify possible solutions to ease traffic pains.
Braves traffic is more dream than ‘nightmare’

Posted by John Ruch | Apr 27, 2017
Braves Data

• Over **10,000 hours** of data collected
• Over **1.1 million cars** counted
• 6 intersections counted
  • 12 hours at each intersection
• 33 roadway segments counted
  • 96 hours at each segment
• Along roadway segments, 34% variation on average, but can vary 8% - 145% on normal days
• At intersections, 25% variation on average, but can vary 17% - 35% on normal days
Braves Data

• Along roadway segments, 34% variation on average, but can vary 8% - 145% on normal days
• At intersections, 25% variation on average, but can vary 17% - 35% on normal days
Northbound or Eastbound Traffic Variation
Game Day vs. Normal Day

Game Day Change
- Orange: Increase
- Gray: No Change
- Blue: Decrease

Small | Large

Ave. Change (VarC1vC3Int) Northbound / Eastbound
Southbound or Westbound Traffic Variation
Game Day vs. Normal Day

Game Day Change
- Increase
- No Change
- Decrease

Small | Large

Ave. Change (VarC1vC3Int) Southbound / Westbound
City of Sandy Springs GA

Name          Status
CV_Mt_Vrmn-Pwrs_Fry  Online
CV_Spalding-Roberts  Online
PowFor_Hoards_EB    Online
PowFor_Hoards_WEB   Online
Riverside-River Valley  Marginal
SandySpringsBeacon1  Comms Fail
SandySpringsBeacon2  Comms Fail
SandySpringsBeacon4  Comms Fail
Spalding - Nesbit Ferry  Online
Spalding - Winters Chapel  Online
VAWF_Cabinet       Online

City of Sandy Springs GA - Davis Academy

Name          Status
Davis_Acad_NB  Online
Davis_Acad_SB  Online

Current Status: Online
Current Alarms: OK
Power Status: OK
Current Error Status: OK
Timezone: -5 Hours
Time Since Last Contact: 14 Minutes 32 Seconds

<table>
<thead>
<tr>
<th>Status</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Voltage (V)</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Cabinet Temp (F)</td>
<td>61</td>
<td>45</td>
<td>62</td>
<td>51</td>
</tr>
<tr>
<td>BBS Battery (V)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Humidity (%)</td>
<td>16.1</td>
<td>12.4</td>
<td>27.0</td>
<td>21.7</td>
</tr>
<tr>
<td>Monitor Bat (V)</td>
<td>13.5</td>
<td>13.5</td>
<td>13.5</td>
<td>13.5</td>
</tr>
<tr>
<td>SMU AC Line Voltage (V AC)</td>
<td>255</td>
<td>255</td>
<td>255</td>
<td>255</td>
</tr>
<tr>
<td>SMU AC Line Frequency (Hz)</td>
<td>255</td>
<td>255</td>
<td>255</td>
<td>255</td>
</tr>
<tr>
<td>SMU 24V DC Voltage (V)</td>
<td>255</td>
<td>255</td>
<td>255</td>
<td>255</td>
</tr>
</tbody>
</table>

Status
- Outlet Power: On
- Cabinet Temp: Closed
- BBS Low Battery: BATTERY LOW
### PowHer_Heards_EB

- **Current Status**: Online
- **Current Alarms**: Sandy Springs schedule
- **Power Status**: No AC
- **Current Error Status**: Main URL is down
- **Timezone**: -5 Hours
- **Time Since Last Contact**: 3 Minutes 41 Seconds

#### System Voltage (V DC)

<table>
<thead>
<tr>
<th>System Voltage (V DC)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.6</td>
<td>12.2</td>
<td>14.6</td>
<td>12.8</td>
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</tbody>
</table>

#### Monitor Battery (V)

<table>
<thead>
<tr>
<th>Monitor Battery (V)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.6</td>
<td>10.1</td>
<td>12.9</td>
<td>10.8</td>
</tr>
</tbody>
</table>

#### Solar Array Voltage (V DC)

<table>
<thead>
<tr>
<th>Solar Array Voltage (V DC)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.4</td>
<td>0.5</td>
<td>21.4</td>
<td>8.0</td>
</tr>
</tbody>
</table>

#### Median Speed (mph)

<table>
<thead>
<tr>
<th>Median Speed (mph)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36</td>
<td>22</td>
<td>44</td>
<td>34</td>
</tr>
</tbody>
</table>

#### 85th Percentile Speed (mph)

<table>
<thead>
<tr>
<th>85th Percentile Speed (mph)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41</td>
<td>28</td>
<td>48</td>
<td>40</td>
</tr>
</tbody>
</table>

#### Volume (vph)

<table>
<thead>
<tr>
<th>Volume (vph)</th>
<th>Now</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>252</td>
<td>0</td>
<td>360</td>
<td>154</td>
</tr>
</tbody>
</table>

### City of Sandy Springs GA - Davis Academy

- **Name**: Davis_Acad_NB
- **Status**: Online
- **Name**: Davis_Acad_SB
- **Status**: Online

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### Statuses

- **Cabinet Door**: Closed
- **Beacon Status**: Central Schedule - OFF
- **Lamp Status**: Unknown

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### Inputs

- **Beacon Control**: On
- **Beacon Control**: Off
Field Operations
Field Operations

- Decision making at the right levels
- Balance liability
- Enabling/empowering management
- Remote PTZ monitoring access
- Emergency Operations
Temporary Cones/Barrels
Striping prior to construction
Final typical cross-sections
The city's plan to redesign part of Sandy Springs Circle between Hammond Drive and Mount Vernon Highway with fewer lanes, on-street parking and multi-use paths, revealed in March, seems to have confused just about everyone.

It surprised the mayor. It drew criticism from bicyclists as out-of-date. It was blasted as "stupid" by a city planning commissioner as the commission demanded more review.

Many other people said the design was news to them. Yet city transportation officials have said the design was publicly vetted and approved long ago.

It turns out that both things are true, as two Sandy Springs city officials—Bryant Poole, assistant city manager for infrastructure, and Andrew Thompson, capital programs manager—explained in a recent interview.

The Sandy Springs Circle design was approved as part of the city's City Center Master Plan process in 2012, but only as a general concept. The March meeting unveiled the first, full, detailed design—and was the first public update in more than three years. That also will
Rich Lennartz: Planned increase in traffic with more apartments, city hall, event center, et al, and ... eliminating instead of adding a traffic lane on Sandy Springs Circle ... never did compute in my mind. Who made that decision?

Sabrina Ferris Nordquist: This whole situation is a disaster in every direction and there have been accidents and road rage incidents already. The only people who weren’t able to predict that this would be a disaster happen to be the ones who are in charge. They paid for an expensive traffic study and still made a series of idiotic decisions that residents suffer from daily. It’s like Sandy Springs is regressing rather than making progress. Why can’t we elect or hire some competent leadership?
Jason S. Smith: Totally Debbie. Makes no sense to shrink that road.

Ian Fisher: That's silly, there has to be a way to turn left on Mt. Vernon from there.

Doug Williams: Ian Fisher there wasn't before.
Kirsten Summer How about the cone maze on Sandy Springs Circle?

Elissa Oliver Keep it! I don't get cut off anymore. And it cuts 20 min. Off my time to get home!

Bill Godshall Elissa Oliver, I agree. Who knew cutting a lane out would improve traffic flow? But it is working.

Kirsten Summer Elissa Oliver I think that’s the intention but replacing the cones with some sort of median.
Elissa Oliver Omgggg. I love the cones. It has shaved 20 min off my home route. Thank you
DONT UPSET YOUR MOM
WHEN YOU TEXT & DRIVE
Management
Management

- Right people for the right job
- Training (vs new technology)
- Management styles
- Clarity
- Inclusion
- “High Performance Organization” structure
- Champions
- Remember the people component to organizations
- Data speaks
General Lessons

• Establish a vision and goals
• Avoid using the 3E’s for placing blame
• Don’t be afraid of failure (don’t embrace it too much either…)
• Approach problems consciously and holistically, find the “right way”
• Intent and purpose is to serve the community, not to carry a specific project in a specific form from one point to another
• Positivity
• Relatability helps understanding
• Right people making the decisions
• Think beyond the morning coffee
Thank you
Ruben Hovanesian
RHoveranesian@CityOfPalmdale.org