



Broadband and Smart City Ad-Hoc Committee Work Session

Agenda

September 30, 2021 @ 9:00 am

Winter Park Country Club
761 Old England Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/bpm and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

1. Call to Order**2. Discussion Item(s)**

- | | | |
|----|---|------------|
| a. | Broadband and Smart City Ad-Hoc Committee Launch | 30 minutes |
| | <ul style="list-style-type: none">• Welcome and Introductions• Review Ordinance establishing committee• Decorum | |
| b. | Discussion of infrastructure needs for the City of Winter Park | 3.5 hours |
| | <ul style="list-style-type: none">• Introduction of Facilitator• Creation of Action Plan | |

3. Adjournment



Broadband and Smart City Ad Hoc Committee

agenda item

item type Discussion Item(s)	meeting date September 30, 2021
prepared by Kim Breland	approved by
board approval	
strategic objective	

subject

Broadband and Smart City Ad-Hoc Committee Launch

item list

- Welcome and Introductions
- Review Ordinance establishing committee
- Decorum

motion / recommendation

background

alternatives / other considerations

fiscal impact

ATTACHMENTS:

[RES2233-20 Signed.pdf](#)

ATTACHMENTS:

[ORD3210-21signed.pdf](#)

RESOLUTION NO. 2233-20

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA, RESTATING AND ACCEPTING PRIOR RESOLUTION NO. 2129-13 REGARDING RULES FOR THE CONDUCT OF CITY COMMISSION MEETINGS AND DECORUM, AS WELL AS OTHER SUBJECTS ADDRESSED IN THAT RESOLUTION, AND SUPPLEMENTING AND AMENDING THAT PRIOR RESOLUTION TO ADD OTHER POLICY ADDITIONS AND MODIFICATIONS PREVIOUSLY ADOPTED OR DISCUSSED BY THE COMMISSION OUTSIDE OF THE RESOLUTION PROCESS.

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA:

SECTION 1: Resolution No. 2129-13 is hereby restated in its entirety with certain changes to take into account other policies adopted by the Commission that were never formally approved by resolution and to make other changes for clarification and consistency purposes. The rules set forth in this Resolution supersede and replace all other prior adopted policies, rules, and resolutions governing the City Commission concerning the matters set forth herein. The City Commission will be the judge, interpreter, and enforcer of the rules set forth herein. Nothing herein grants or is intended to grant any rights to or vest any rights in third parties to enforce or be beneficiaries of the rules set forth herein.

SECTION 2: RULES. It is the duty of the City Commission to make such rules for its own guidance and government as it may deem expedient. The following serve as the internal rules for the government of the City Commission:

RULE 1. REGULAR MEETINGS: The City Commission shall hold regular meetings on the second and fourth Wednesday of each month in the City Commission Chambers at the City Hall commencing at 3:30 p.m. or at such time of day and location as the Commission may decide, provided, however, that the City Commission may dispense with any one meeting each month that conflicts with a holiday or when it is anticipated that the business of the Commission is not urgent.

RULE 2. SPECIAL AND EMERGENCY MEETINGS: Any member of the City Commission may call a special or emergency meeting of the Commission either by written or verbal request to the City Manager. In order to provide for the most open and public notice as possible and to provide all members of the Commission an equal opportunity to participate and to increase efficiency in scheduling, all such meetings should, if possible, be requested and scheduled during a public City Commission meeting. Whenever a special or emergency meeting is called, the Commission must be notified either in person, via e-mail, and/or by telephone at least twenty-four (24) hours before any special meeting and, when practicable, at least twelve (12) hours before any emergency meeting. A copy of such notice shall likewise be posted at City Hall and on the City's website.

RULE 3. WORK SESSION MEETINGS: The City Commission may meet informally for study and discussion of the affairs of the City, but no formal or binding action may be taken at a work session meeting. In order to provide for the most open and public notice as possible and to provide all members of the Commission an equal opportunity to participate and to increase efficiency in scheduling, all such meetings should, if possible, be requested and scheduled during a public City Commission meeting. In the event two (2) or more members of the Commission wish to meet to discuss a topic(s) related to City business outside of a full Commission work session, in addition to complying with the Sunshine Law, the other members of the Commission shall also be notified and invited to participate. Whenever a work session is called, the Commission must be notified either in person, via e-mail, and/or by telephone at least twenty-four (24) hours before the scheduled time. A copy of such notice must likewise be posted at City Hall and on the City's website.

For planning and scheduling purposes and to reduce the need for specially called work sessions, there shall be one regularly scheduled work session each month. The topics for these work sessions must be determined in advance by the City Commission with input from city staff. The Commission may, by simple majority vote, set the day and time of the regularly scheduled monthly work sessions.

RULE 4. MEETINGS OPEN TO THE PUBLIC: All meetings of the City Commission for the purpose of transacting city business, whether action is taken or not, must be held in the City Commission Chambers (unless the Commission notices another advertised location) and must be open to the public. Rule 4 does not prohibit meetings from taking place via a virtual or electronic format at such times allowed by the Governor under a state of emergency or if otherwise authorized by law. Virtual meetings must be open to the public.

RULE 5. AGENDA: The City Manager shall prepare an agenda for all meetings, except emergency meetings when time does not permit.

(A) **AGENDA ITEMS** - Any potential agenda item may be brought up by the Mayor or a Commissioner at any time during the regular Commission meeting, special meeting, or work session to determine the interest of the other Commission members. If a majority of the Commissioners present, either in person or virtually, concur, the item will be placed on a future agenda with appropriate supporting documentation provided by staff. No member of the Commission may direct a staff member or the City Attorney to prepare an agenda item without that member first addressing it at a public meeting and gaining consensus to consider the issue at a future meeting. If a member of the Commission would like to add an agenda item of a pressing nature that can potentially be harmful to the city if the normal request process is followed, this request to add the item to the agenda must be made in writing to the City Manager. The City Manager shall determine whether the item should be added to the agenda. To ensure adequate and proper notice is given to the public, any such request should occur prior to the publishing of the agenda packet. [CH1]

No action may be taken at the meeting in which the new item is introduced unless a majority of the Commission decides that time constraints do not permit scheduling the item for a future meeting or the matter is of such a nature as to not require any supporting information or documentation for the Commission to make an informed decision. Staff should be provided enough time to prepare appropriate supporting materials for either the next meeting or a future meeting if the next meeting does not allow enough time to prepare the information and appropriately address the item. There must be a consensus of at least three Commission Members to move forward.

Any non-agenda item brought up by a member of the public will follow the same procedures as outlined above if there is interest in pursuing the item.

(B) **RECONSIDERATION OF ITEM** - No item/issue may be introduced for reconsideration by a Commissioner that was on the minority side of the previous vote until at least six months have passed since action on the item was taken. However, a Commission member on the majority side of a vote may request that the item be reconsidered at any time by following the procedure outlined in subsection (A) above. A newly elected Commission member who did not hold office at the time of the vote on an item may request that such item be reconsidered any time, and with the concurrence of at least two other Commission members, may have such item placed on a future agenda for consideration.

(C) **Distribution** - The agenda must be provided to the public via the City's website no later than the Thursday prior to the Wednesday meeting and must be posted at City Hall.

(D) **Minutes** - Minutes must be prepared for all Commission meetings, regardless of whether the meeting is a regular, special, emergency, informal, work session, small group Commission meeting, or a Community Redevelopment Agency meeting. The City Clerk will endeavor to prepare all minutes within five days following each meeting. Once prepared by the City Clerk the minutes must be presented to the Commission for review/approval as part of the next agenda packet sent to the Commission.

RULE 6. PRESIDING OFFICER: The Mayor shall preside at all meetings, if present, and in his/her absence, the Vice-Mayor, and in the absence of both the Mayor and the Vice-Mayor, a Mayor pro tem must be elected to preside.

RULE 7. DECORUM: The presiding officer, and in the absence of a presiding officer, the City Manager or the City Manager's designee, is empowered to and shall preserve decorum. Members of the public attending Commission meetings also shall observe the same rules of propriety, decorum and good conduct applicable to members of the Commission. Any person making personal, impertinent, and slanderous remarks

or who becomes boisterous while addressing the Commission or while attending the Commission meeting must be removed from the building and may not return to the meeting from which he or she was removed, or to the building, prior to close or adjournment of the meeting without leave of the presiding officer or the permission of the Commission. If the person removed is an applicant for city action or otherwise is the named proponent of a matter that is scheduled to come before the Commission, but which has not been decided by the Commission at the time of the person's removal, the Commission may, but is not required to, postpone consideration of said action or matter until the next regularly scheduled meeting. If consideration of such action or matter is postponed, any fees required to be paid in connection with bringing said action or matter before the Commission will be required to be paid again prior to the subsequent consideration of said action or matter.

The provisions of this Rule 7 also apply to Commission work sessions and informal meetings (work sessions with less than a quorum of the Commission present), to the meetings of City boards, and to meetings with City staff which are open to members of the public.

RULE 8. ORDER OF BUSINESS: All meetings (regular or special) of the Commission must be open to the public promptly at the hour set on the day of each meeting. The business of the Commission must be taken up for consideration and disposition in substantially the following order, unless modified by ~~the presiding officer or the~~ City Commission.

1. Meeting Called to Order
2. Invocation and Pledge of Allegiance
3. Approval of Agenda
4. Mayor's Report (for non-action items such as proclamations, awards, check presentations, etc.)
5. City Manager's Report
6. City Attorney's Report (for updates on litigation or other legal matters).
7. Non-action items (for updates on issues, citizen board reports and general discussion items requiring Commission direction, but not official action).
8. Citizens' Comments (at 5:00 p.m. or as soon thereafter as possible or at the end of the meeting if it is ending prior to 5:00 p.m.)
9. Consent Agenda (allow Citizen input)
10. Action Items Requiring Discussion (allow Citizen input)
11. Public Hearings (for all resolutions and ordinances; allow Citizen input)
12. City Commission Reports
13. Summary of meeting actions

RULE 9. ADDRESSING THE COMMISSION: Public input is not taken during work sessions unless this provision is waived by the Commission. At formal meetings, any person desiring to address the Commission must first be recognized for that purpose by the presiding officer.

(A) Written Communications -- Members of the City Commission, taxpayers or residents of the City, and other interested parties or their authorized representatives may address the Commission by written communications in regard to matters then under discussion. A copy shall be provided to the City Clerk. Emails related to agenda items received by City staff (but not addressed to the Commission) must be forwarded to the City Commission.

(B) Oral Communications -- Taxpayers or residents of the City and other interested parties, or their authorized legal representatives, may address the Commission by oral communication on any matter concerning the City's business or any matter over which the Commission has jurisdiction or control under New Business (Public).

(C) Anonymous Communications -- Unsigned communications may not be introduced to the Commission.

(D) Manner of Addressing Commission; Time Limited -- Each person recognized for the purpose of addressing the Commission shall step forward to the podium with the microphone thereon and give his/her name and address in an audible tone for the record, and unless further time is granted by the presiding officer or the Commission, must limit his/her address to three (3) minutes for individuals and fifteen (15) minutes for team presentations, or such additional time as may be deemed appropriate by the Commission. All remarks must be addressed to the Commission as a body and not to any member thereof nor to the audience. No person, other than the Commission may be permitted to enter into any debate or discussion, either directly or through a member of the Commission, without the permission of the presiding officer. Copies of all overhead or Power Point presentations or other information used as part of their discussion must be provided to the City Clerk either in hard copy or electronically. When a large number of the public wish to address the Commission on any issue, priority will be given to Winter Park residents and taxpayers.

RULE 10. VOTING: Ordinances and resolutions require a roll call vote of the City Commission who are present at the meeting either in person or through the use of video-conferencing. All other votes may be done by voice vote. Any time the result of a voice vote is unclear, the City Clerk, presiding officer, or a Commissioner may request a roll call vote. Whenever a roll call vote is ordered, the City Clerk shall call the roll of Commissioners and record the vote of each member. For purposes herein, a roll call vote may be by voice or by electronic recording device that specifically identifies the vote of each Commission Member.

RULE 11. PROCEDURE FOR ADOPTION OF ORDINANCES AND RESOLUTIONS:

(A) Adoption Procedures -- The procedure for adoption of ordinances and resolutions is as set forth in Section 166.041, Florida Statutes, and Section 2.11 and 2.12 of the City Charter. This Resolution does not and is not intended to

create additional legal requirements for the Commission's adoption of ordinances and resolutions. An ordinance or resolution adopted by the Commission in the past or in the future will be presumed to have been adopted in compliance with this Resolution and prior iterations of the Commission's resolutions, rules, and policies.

(B) Preparation and Review of Ordinances, Resolutions, Contracts, etc.

1. Preparation of Ordinances. No ordinance may be prepared for presentation to the Commission unless ordered by a majority vote of the Commission, or requested by the City Manager, or prepared by the City Attorney on his/her own initiative.

2. All ordinances, resolutions, and contract documents must, before presentation to the Commission, be approved as to form and legality by the City Attorney or his/her authorized representative and will have been examined and approved for administration by the City Manager or his/her authorized representative where there are substantive matters of administration involved. All ordinances impacting land use shall require review and certification by department heads addressing the availability of public services to support the project and any improvements required. Such review must address capacity of water, sewer, transportation, parks, schools, and any other impacted governmental services including, but not limited to police, fire protection, and tree preservation.

RULE 12. RULES CONFIRMING COMPLIANCE WITH CHAPTER 2013-227, LAWS OF FLORIDA:

(A) The agendas for meetings of the Commission should briefly identify all propositions coming before the Commission for discussion or action so that the public is sufficiently notified of the subject of the proposition.

(B) "Public Comments" will be included on every regular City Commission agenda (including, by amendment to Section 2-48 of the Municipal Code, the public agendas for subsidiary boards or commissions). The Commission will allow comments from members of the audience regarding all propositions and proposed actions. With respect to those matters that are identified as exempt from these requirements by Statute 286.0114, which include emergencies, ministerial acts (such as the approval of minutes), ceremonial proclamations, a meeting exempt from Sunshine (Section 286.011), and matters in which the City Commission or a subsidiary board acts in a quasi-judicial capacity, the Commission reserves the right to allow public comment to the extent such is reasonably possible, as determined by the Commission in its discretion, and specifically will allow public comment in such matters where the City has traditionally allowed for such, including quasi-judicial proceedings.

(C) If a proposition comes before the Commission for action or for a formal vote that was not on the agenda, the Mayor or Presiding Officer will allow public comment on that proposition before it is voted on.

(D) If the Commission determines that public comment is not reasonably possible or needed, then public comment may not be heard on:

1. Emergency items, meaning an official act that must be taken to deal with an emergency situation affecting the public health, welfare, or safety, if compliance with Florida Statutes 286.0114 would cause an unreasonable delay in the ability of the Commission to act.

2. Ministerial items, meaning an official act involving no more than a ministerial act, including but not limited to, approval of minutes and ceremonial proclamations. Additionally, any parliamentary vote such as a motion to table, motion to adjourn, motion to extend debate or other similar procedural votes which do not implicate any substantive right but are merely designed to facilitate the conduct of the meeting shall be deemed ministerial and public comment may not be allowed.

(E) Public comment is allowed for quasi-judicial matters but in no event will public comments be considered evidence at a quasi-judicial proceeding unless a party properly makes such comment evidence that is admissible under the law.

(F) Public Comments will not as a matter of normal order be part of a work session agenda. However, Citizens' Comments will be allowed on any proposition regarding a work session topic at the first regular or special meeting of the Commission following the work session, and before a vote on the item is taken by the Commission.

(G) It is the intent of the Commission that all City boards and subsidiary boards will allow public comment at their meetings except for emergency or ministerial items, and may allow such as quasi-judicial hearings so long as the comment is not used as evidence.

(H) To the extent there is any conflict between the provisions of this Rule, 12, and any other rule of the City Commission, this Rule 12 shall take precedence and shall control.

RULE 13. PROVISION FOR SAFE AND ORDERLY MEETINGS: The City Manager has the authority to provide for and identify areas to remain free of persons and objects during meetings except for those persons invited to address the Commission. This will promote safety, and ensure an orderly meeting, free of interruption, and is in the interest of allowing citizens in attendance at the meeting while seated in the area

reserved for the audience to observe the dais and Commission activity without having their view obstructed or their attention distracted by persons, objects, or activity within such designated areas, including that area between the dais and the citizens' seating area. This Rule is subject to the exception that persons and their exhibits or other objects may cross into such area(s) when those persons are recognized by the Commission or by the Mayor at a meeting as presiding officer.

RULE 14. PROVISION FOR COMMISSIONER PARTICIPATION AT MEETINGS THROUGH THE USE OF VIDEO-CONFERENCING:

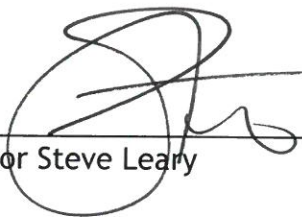
- (A) The use of video-conferencing by an individual member of the City Commission will be limited to not more than three times per calendar year, unless otherwise required due to emergency or other safety considerations (e.g., a pandemic).
- (B) A Commission Member participating by video-conference may vote on matters before the Commission as long as a quorum is physically present at the meeting (unless the physical quorum requirement is suspended by executive order or other proclamation of the Governor due to a state of emergency or other exigent circumstances).
- (C) It shall be the responsibility of the Commission member desiring to participate by video-conferencing to notify the City Manager of such at least 24 hours prior to the scheduled meeting in order to allow staff time to be prepared to accommodate virtual participation.
- (D) It is the responsibility of the Commission member participating by video-conferencing to ensure that they have the appropriate equipment and adequate internet bandwidth to accommodate video-conferencing on his/her end of the connection.
- (E) It is the responsibility of the city and city staff to ensure that the city has the appropriate equipment and technology on the city's end to accommodate video-conferencing that at a minimum:
 - a. Allows the public to see and hear the Commission member participating virtually while such Commission member is speaking.
 - b. Allows the Commission member participating virtually to see and hear the person speaking in-person at the meeting.
 - c. Allows the Commission member participating virtually to see any presentation materials that are displayed for those participating in person.
- (F) In situations where the technology fails to facilitate the foregoing, regardless of the cause, the Commissioner's ability to vote remotely shall be suspended until such time that the problem has been rectified. Any vote taken by the rest of the Commission during such time will stand and not be revisited unless the majority rules to allow a re-vote.
- (G) If the failure of the technology becomes an on-going disruption to the meeting, the Mayor may ask that the connection be terminated until such time the technological difficulty or failure is remedied. The Mayor's determination may be overturned by a simple majority vote of the Commission members

present in person at the meeting. In the event of a tie vote, the Mayor's determination stands.

(H) A Commission member participating by video-conferencing may not be accompanied by members of the public whom cannot be seen or heard by others participating in the meeting.

SECTION 3. This Resolution becomes effective immediately upon its final passage and adoption.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park, Florida on this 22nd day of July, 2020.



Mayor Steve Leary

ATTEST:



City Clerk Rene Cranis

ORDINANCE 3210-21

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF WINTER PARK ESTABLISHING A BROADBAND AND SMART CITY AD-HOC COMMITTEE; PROVIDING FOR SUNSET AND AN EFFECTIVE DATE.

WHEREAS, in accordance with Chapter 2, Section 2-48(1), City of Winter Park Code of Ordinances, the City Commission hereby creates a temporary five (5) member Broadband and Smart City Ad-Hoc Committee for the purpose of evaluating Smart City Technologies to foster continuous improvements in services, and advance Broadband standard of service, technology, choice, and availability, to citizens and visitors of the City of Winter Park, making recommendations concerning the same to the City Commission; and

WHEREAS, the Winter Park City Commission finds that this Ordinance is in the best interest and welfare of the residents and visitors of the City of Winter Park.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. Creation. The City Commission hereby creates the Broadband and Smart City Ad-Hoc Committee ("Committee") for the purposes of:

1. Serving as a forum for the discussion of Smart City and Broadband standard of service, technologies, including, but not limited to, fiber optic technology, and related concepts among stakeholders.
2. Evaluating methods of ensuring adequate broadband choice, availability, and capacity.
3. Developing an outline for a Smart City strategic plan.
4. Exploring Smart City implementation strategies for the City.
5. Aligning Smart City initiatives with other City objectives and priorities.
6. Evaluating the costs of implementing, administering, and maintaining any such broadband technologies.
7. Exploring innovative and creative ways to utilize such broadband technologies.

The Committee shall develop recommendations to the City Commission that would allow for:

1. Broadband availability and choice.
2. Optimizing traffic flow.

3. Expanding public WiFi.
4. Environmentally friendly buildings.
5. Enhanced Public Safety and Security.

The Committee is an ad hoc committee which is intended to sunset as set forth herein. The Committee shall consist of seven (7) members being residents of the City of Winter Park. The Mayor shall have three (3) appointments and each Commissioner shall each have one appointment to membership of the Committee. The Committee shall elect from its membership a Chair and Vice Chair. The Committee shall generally follow the rules set forth in Chapter 2, Article 111, Division 2, City of Winter Park Code of Ordinances. The recommendations of the Committee to the City Commission must be approved by a majority vote of the Committee. The City Manager (or designee), IT Director and other City staff shall provide reasonable assistance to the Committee as needed.

Section 3. Sunset. The Broadband and Smart City Ad-Hoc Committee shall sunset and terminate 180 days following the effective date of this Ordinance, unless terminated earlier or extended by majority vote of the City Commission. Due to the temporary nature of the Committee, this Ordinance is not to be codified into the City Code.

Section 4. Effective Date. This Ordinance shall take effect immediately upon adoption.

Adopted at a regular meeting of the City Commission on this 28th day of July, 2021.



Phillip M. Anderson, Mayor

Attest:



Rene Cranis, City Clerk



Broadband and Smart City Ad Hoc Committee

agenda item

item type Discussion Item(s)	meeting date September 30, 2021
prepared by Kim Breland	approved by
board approval	
strategic objective	

subject

Discussion of infrastructure needs for the City of Winter Park

item list

- Introduction of Facilitator
- Creation of Action Plan

motion / recommendation

background

Discussion of infrastructure needs for the City of Winter Park

alternatives / other considerations

fiscal impact

ATTACHMENTS:

[Staff Presentation_Smart Cities.pptx](#)

ATTACHMENTS:

[Florida Smart Local Government.pdf](#)

ATTACHMENTS:

[Department Input.docx](#)

ATTACHMENTS:

[winter park smart city_CDW.pptx](#)



Winter Park Envisioning a Smart City

What exactly is a Smart City?



In general, a smart city is a city that uses technology to provide services and solve city problems. A smart city does things like improve transportation and accessibility, improve social services, promote sustainability, and give its citizens a voice.

The main goals of a smart city are to improve policy efficiency, reduce waste and inconvenience, improve social and economic quality, improve security, and maximize social inclusion.



Essential Components of a Smart City





1. Data Is the Foundation

The most important thing to keep in mind as you consider any sort of smart city project is that your decisions are only going to be as good as the data you have coming in.

2. The Network Is the Structure

If data is the foundation on which smart cities are built, then the network is the structure that lets you build off it.



3. Facilitating IoT Connectivity

On top of the physical demands of your network, there are digital requirements as well. The biggest priority is creating a low-latency environment that allows your decision-making processes to keep up with the blistering pace of 21st-century urban life.

4. Modular Infrastructure

A modular infrastructure enables you to keep everything updated while also giving you the flexibility to make upgrades or scale up as needed. Think redundancy.



5. Security

A coordinated cyberattack where a hacker gains control of IoT connected devices could potentially wreak havoc in the physical world. These concerns are fairly common in any conversation around the Internet of Things, but it becomes amplified when we're talking about the scale of a smart city.

6. Privacy from the Ground Up

Another major concern to keep in mind as you ramp up connectivity and data collection is privacy.



7. Sensors and Data Capture

Weather, wind direction and intensity, road surface temperatures and conditions, soil moisture, wildlife, noise pollution, sewage flow rates, valve pressure, water quality, pollen and more are just some examples of the kinds of data you could collect.

8. Distributed Data Processing

Data processing is just as important as data collection. Not everything you collect is going to be useful for your entire network.



9. Focus on Small Wins First

Rolling out a smart city plan at the scale we're talking about is a big project that can widen endlessly. It can start to feel like the entire project isn't worth starting if you can't overhaul several departments at once. You drive bigger transformation by starting with small, tangible wins as proof of concept for your larger goals.

10. A Smart City Is De-Siloed

When you're trying to implement a large-scale change of any type, people can get territorial. Each department has its own unique way of operating. Teams are understandably sensitive to any changes that might disrupt their routine.

Any smart city initiative needs to make de-siloing a priority. Departments must share data and agree upon formatting standards and procedures so everyone can get the most out of it. This goes double for any new equipment or other infrastructure. It makes sense to pair a traffic sensor with an air quality monitor, for example. However, that can only happen with effective inter-department communication. Think big, and get everyone involved.



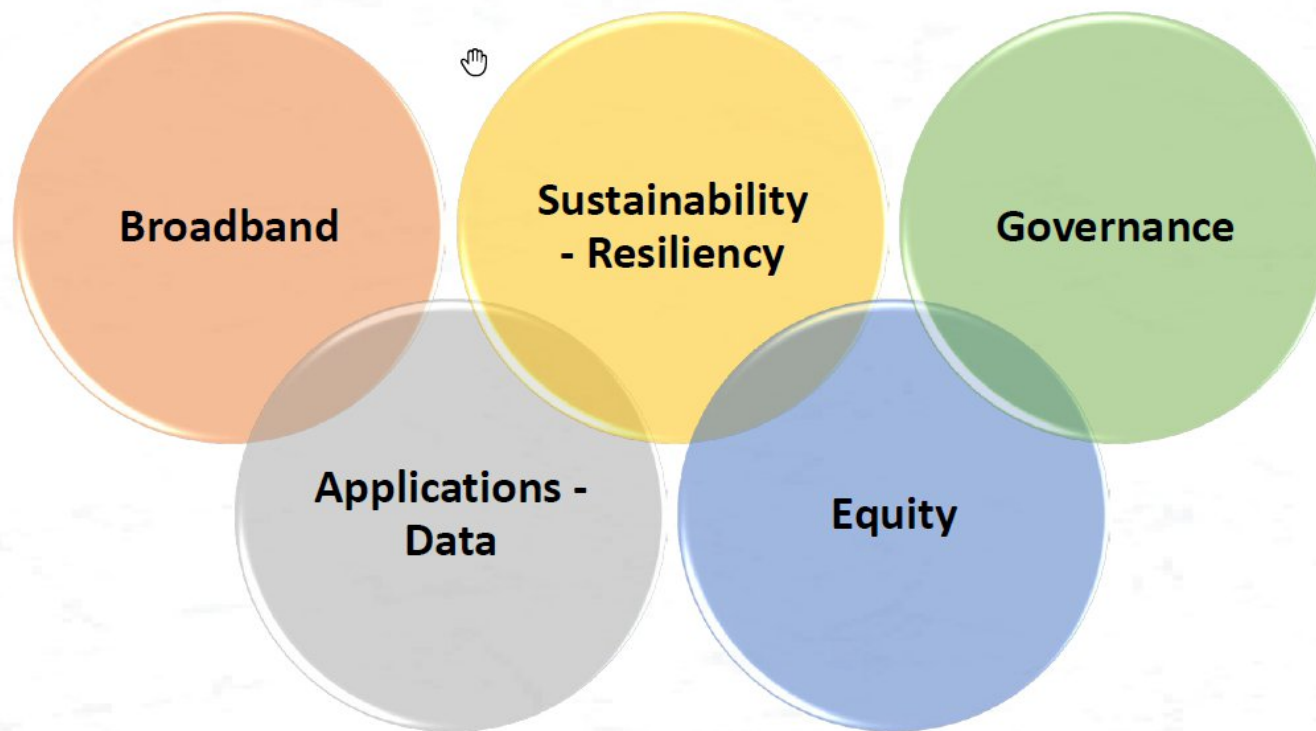
Benefits of Smart Cities

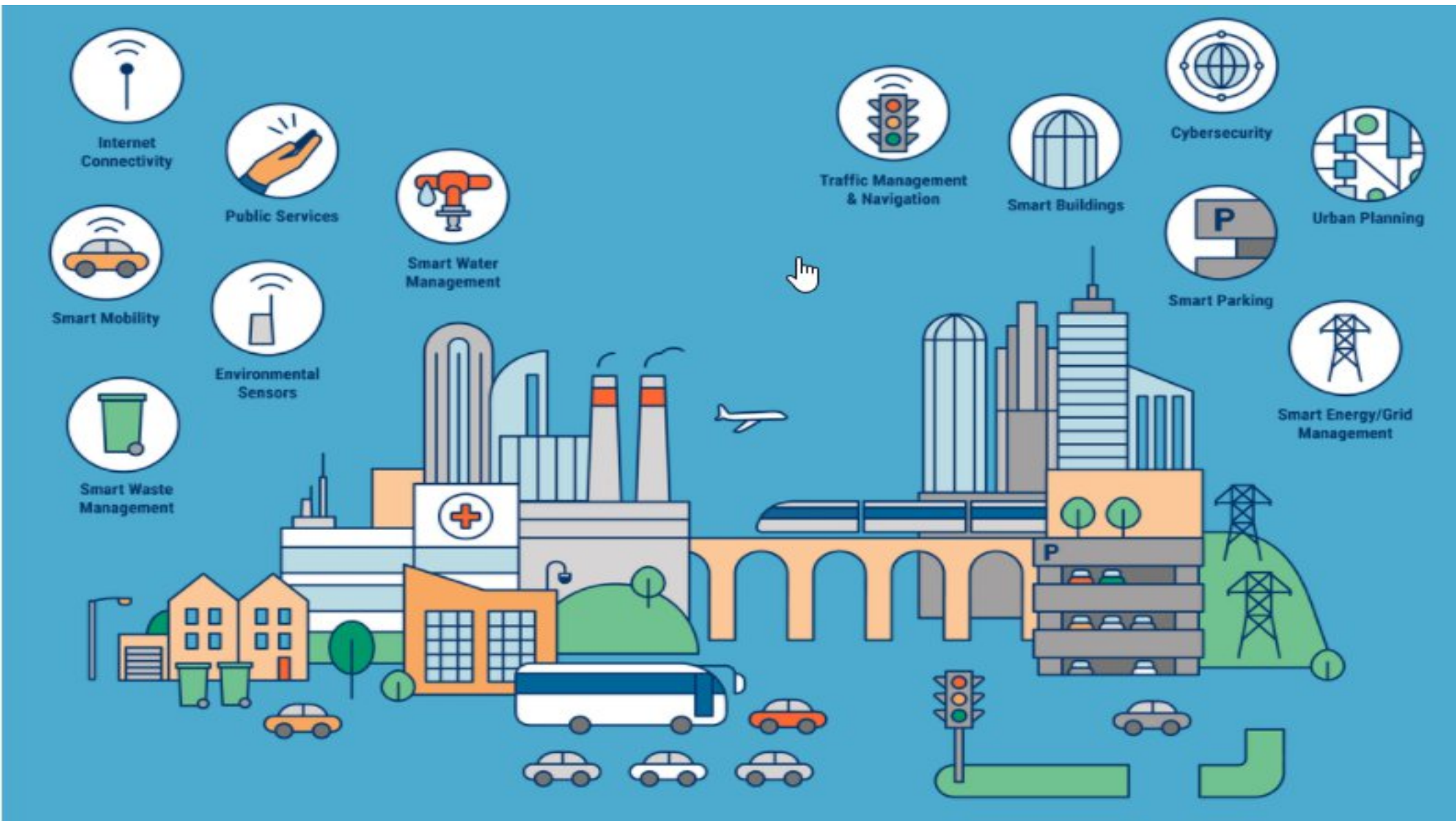


“When you get to a critical mass, the data on the benefits [of a Smart City] is so compelling: a 50 percent reduction over a decade in energy consumption, a 20 percent decrease in traffic, an 80 percent improvement in water usage, a 20 percent reduction in crime rates.”

— The smart-city solution, McKinsey & Company, October 2012

COMPONENTS OF SMART CITIES – APA





COMPONENTS OF SMART CITIES – INDUSTRY



Smart Meters



Smart Electric Meter



Image Source:
City of Houston

Smart Water Meter



Image Source:
www.waterworld.com

Smart Gas Meter



Image Source:
<http://farm4.staticflickr.com>

How Smart Meters Work

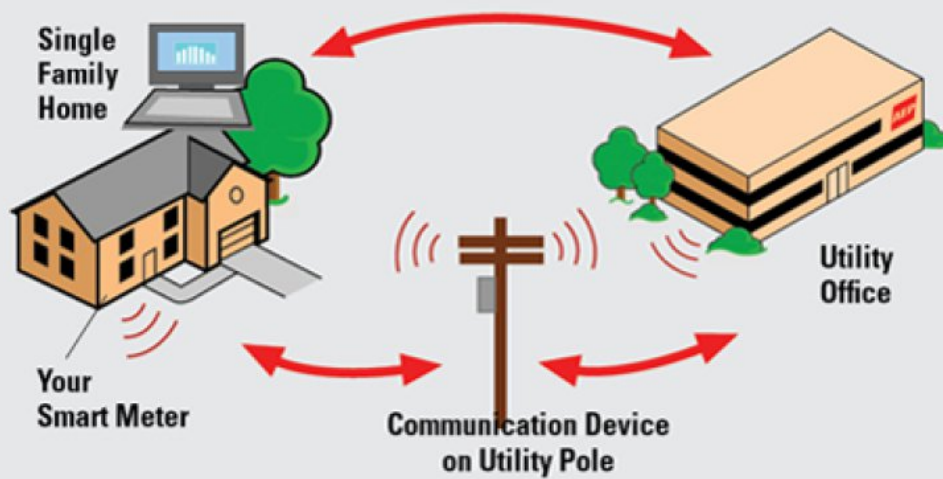


Image Source: <http://4.bp.blogspot.com>

Smart Street Lighting

- **Smart Grid Street Light**
 - Photocelled / wireless app controlled
 - LED/energy efficient
 - 0 – 100% dimming
- **Internal speakers**
 - music, announcements, alerts
- **Image sensors**
 - ped counters, security cameras
- **Digital signage**
 - wayfinding, traffic information, alerts, civic information, revenue generation

intelli**streets**

The wireless digital infrastructure that controls energy management, security, and outdoor media

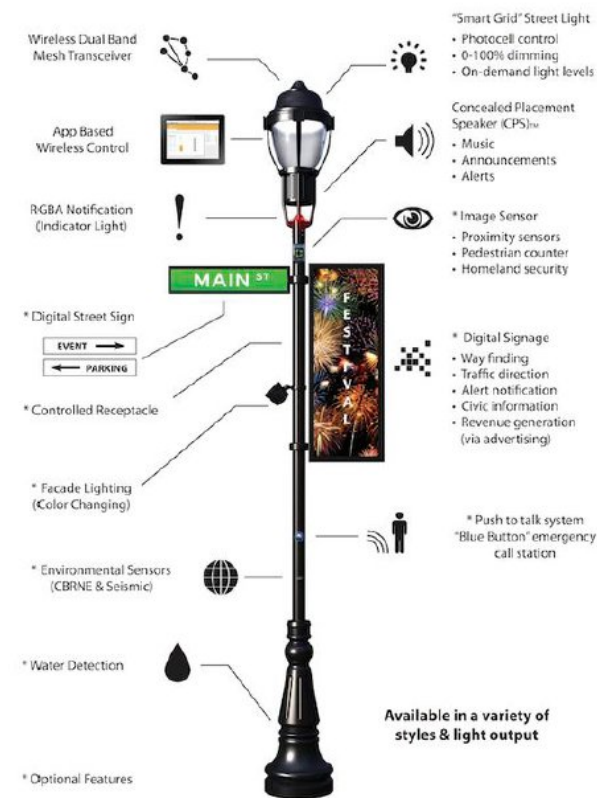


Image Source: wired.com

Broadband, Fiber & Wireless Tech



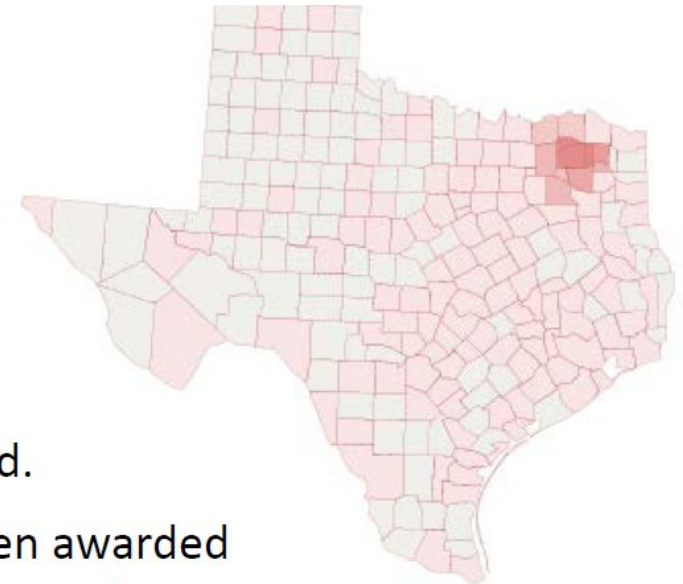
- Broadband is critical infrastructure
- Demand for broadband is growing
- Need both robust wired & wireless networks

BROADBAND SPEEDS

- 56.3% of Texans have access to wired broadband 25mbps or faster.
- 37.7% of Texans have access to broadband 100mbps or faster.
- 2.6% of Texans have access to 1 gigabit broadband.

Since 2010, [Connected Texas](#) has been awarded \$8,026,000 in federal grants for [Texas's Broadband Initiative](#).

1 Gigabit

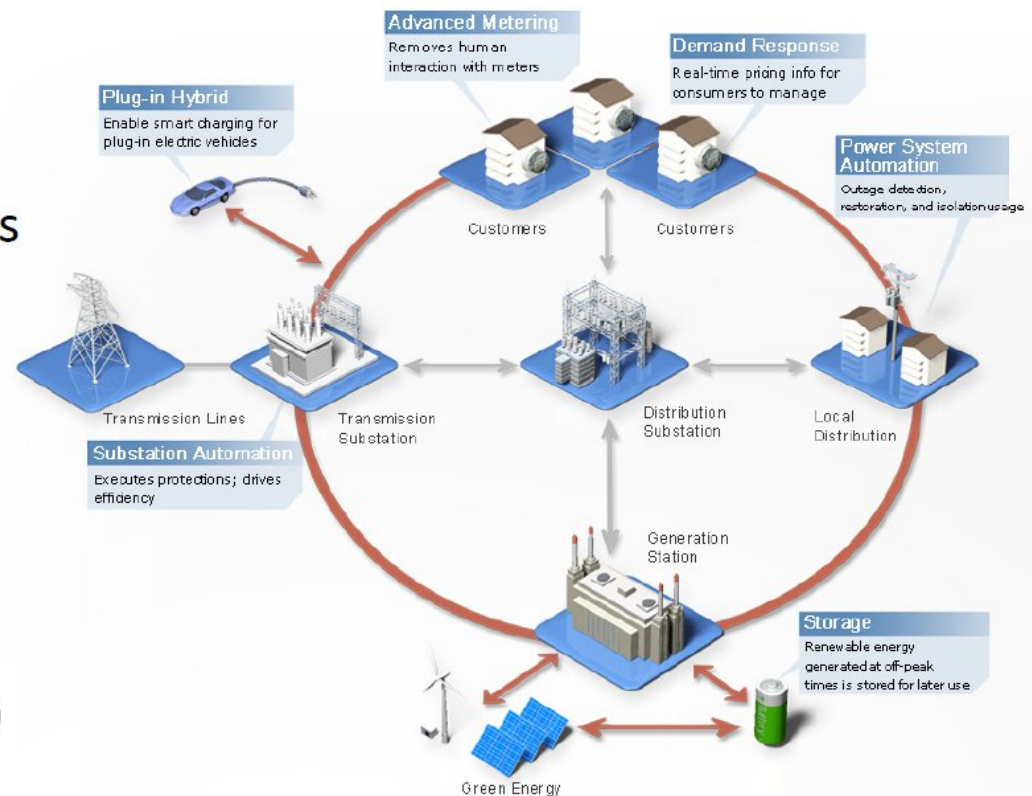


Smart Grid



- A smart grid is an electrical grid which includes a variety of operational and energy measures including:

- smart meters
- smart appliances
- renewable energy resources
- energy efficiency resources



Unmanned Aerial Drones



- Unmanned aerial drones used for:
 - Police surveillance
 - Firefighting
 - Agriculture
 - Gas & electric utilities
 - Research
 - Personal use & photography
- South Padre Island used 2 drones to monitor spring break crowds
- Commercial enterprise?



Image Source: <http://media.nbcdfw.com/>

Surveillance Cameras



- Eyes on the street:
 - in public areas around downtown, stadiums, parks, etc.
- License plate readers

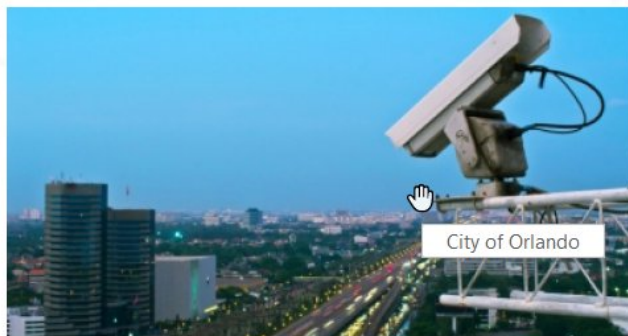


Image Source: <http://www.thenewamerican.com/>

License plate recognition systems

Car-mounted cameras will help locate stolen cars, criminals and Amber or Silver Alert vehicles.

The camera uses infrared light to read and photograph license plates as the police car is traveling down the road.

NEXT ►

CLICK ON
CAMERA

Image Source: <https://physicalism.files.wordpress.com>

QR Codes & Websites



Image Source: City of McKinney



Image Source: <http://sanantoniomomblogs.com/>



Image Source: City of McKinney



Image Source: CAP METRO



Interactive Public Engagement

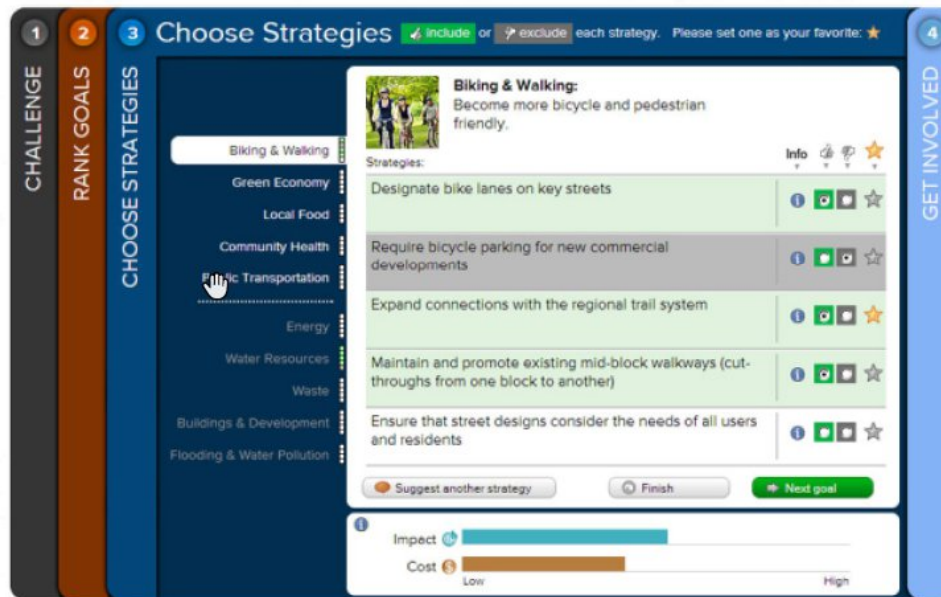


Image Source: MetroQuest

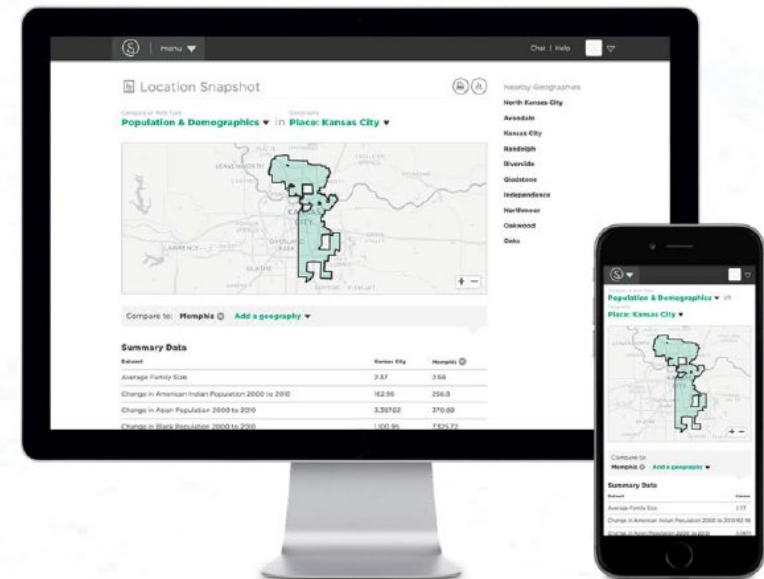
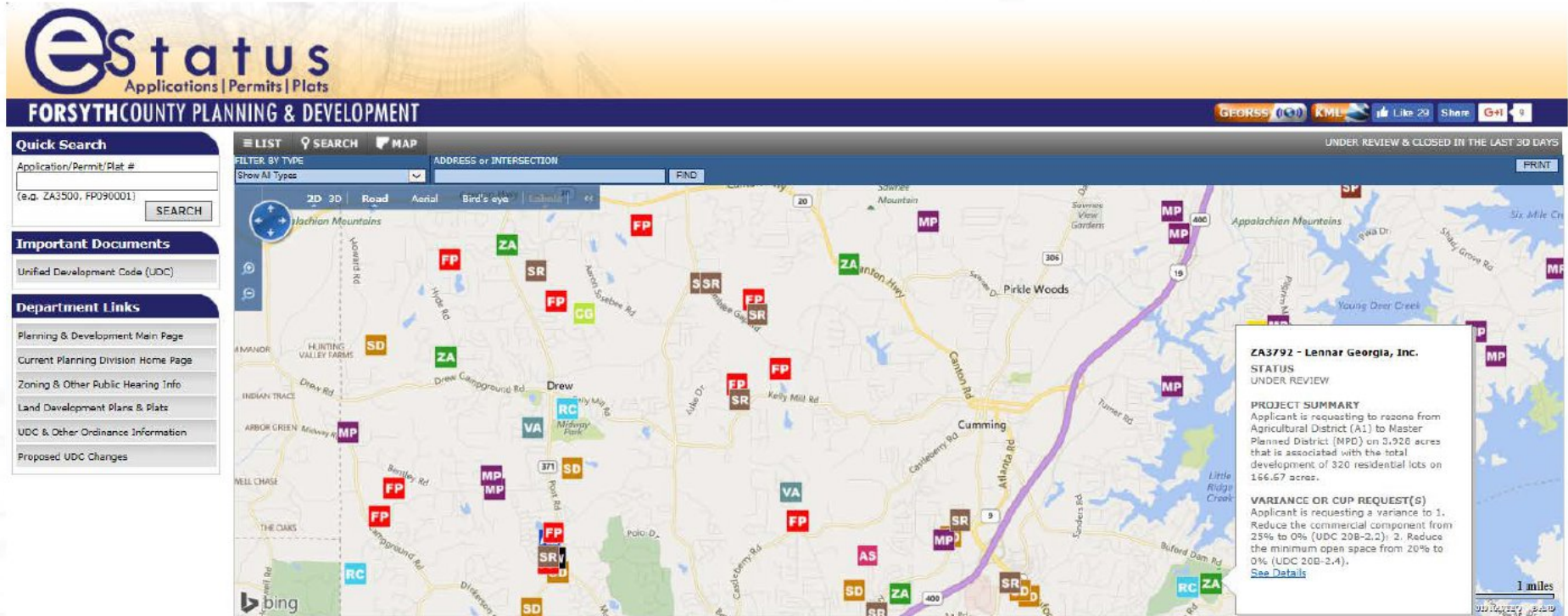


Image Source: mySidewalk



Digital Plan Review Process



The screenshot shows a web browser window displaying a digital plan review process. The main area shows a PDF of architectural plans for the Mitchell Building, with various dimensions and a highlighted section. A sidebar on the right contains a table of comments:

Title	Author	Date
Ramp	Rodney Patterson	12/03/2010 05:00 PM
Ramp #2		

Below the table, there is a comment: "Check size of ramp." A yellow callout box points to this comment, stating: "You will also see the comments associated with the markup as well as the author's name." Another yellow callout box at the bottom of the screenshot states: "After you have reviewed all comments and made corrections to the plans, simply upload the revised plans to the input folder as previously shown."

DENTON, TEXAS

Online Citizen – Gov't Reporting



Bexar County

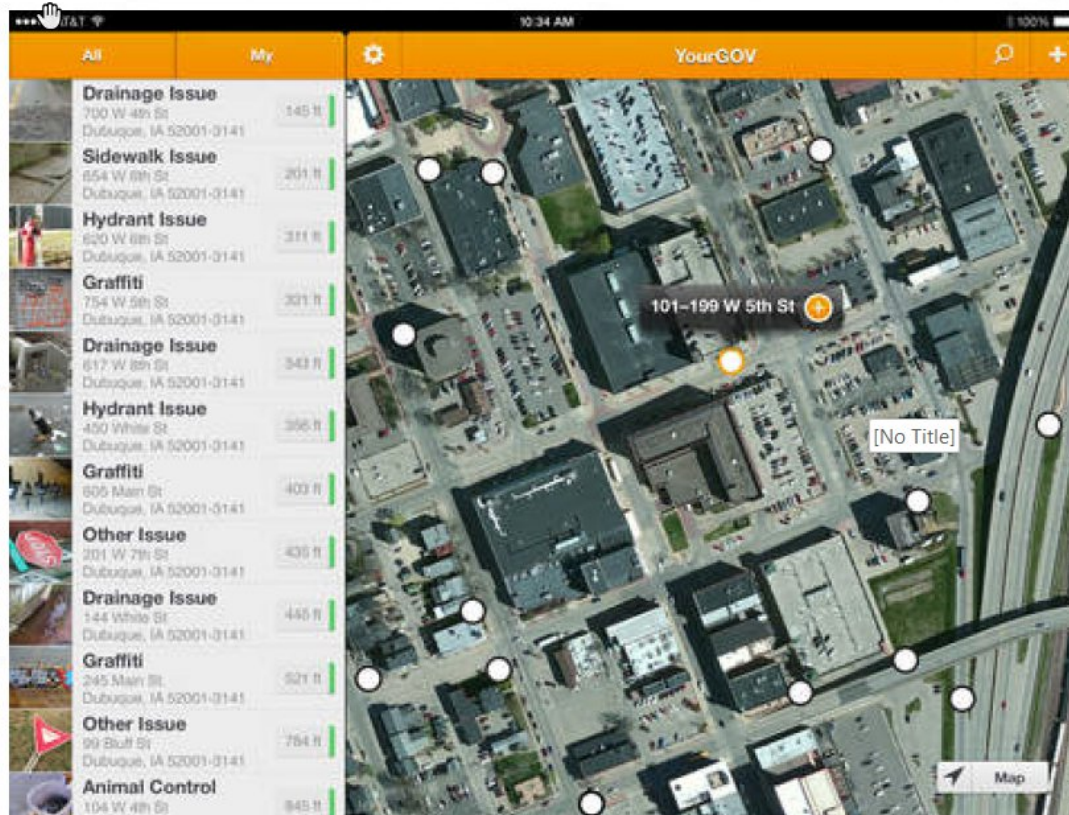
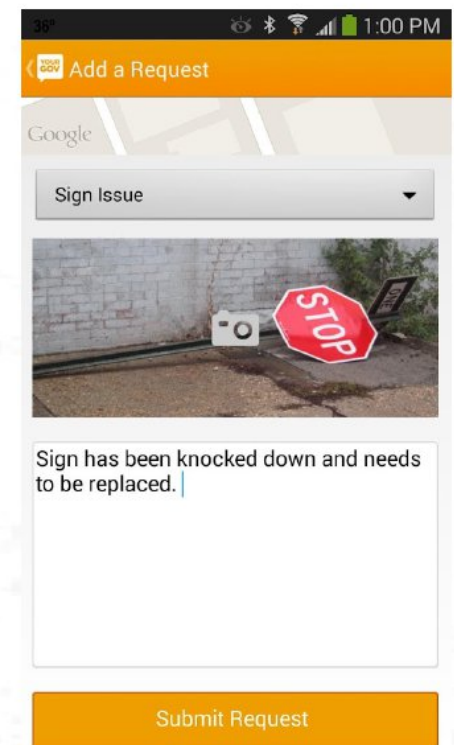


IMAGE SOURCES: CARTEGRAPH



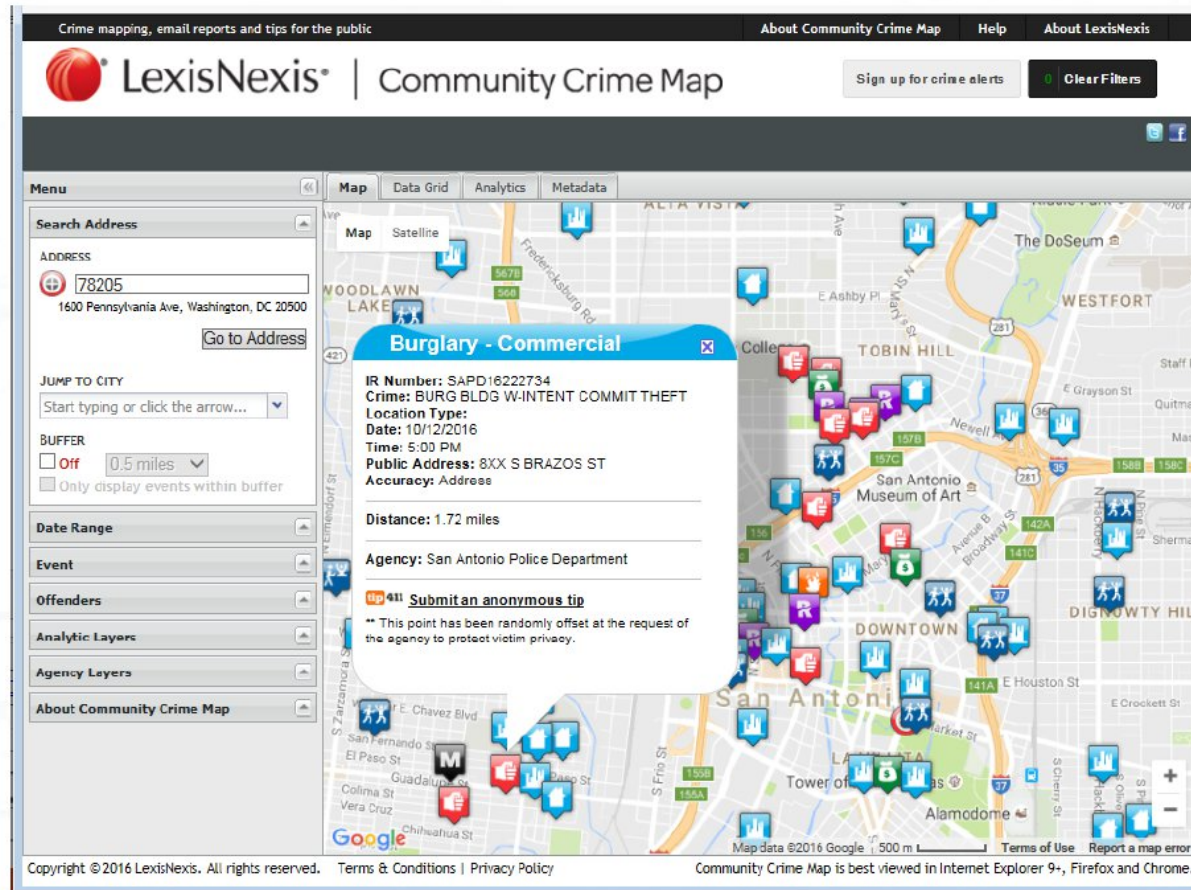


IMAGE SOURCES: [HTTP://COMMUNITYCRIMEMAP.COM/?ADDRESS=78205](http://COMMUNITYCRIMEMAP.COM/?ADDRESS=78205)

Online/Real-Time Public Meetings



Regular City Council Meeting

- 1. Call to Order
- 2. Roll Call and Excused Absences
- 3. Invocation
- 4. Pledge of Allegiance
- 5. Citizens to be Heard - This is the only time during the Council Meeting that a citizen can address the City Council. It is the opportunity for visitors and guests to address the City Council on any issue to include agenda items. All visitors wishing to
- 6. A. The Cibolo City Council will hold a Public Hearing to hear public testimony regarding an update to the City of Cibolo Master Plan.

Agenda



"City of Choice"

City Council Meeting
CIBOLO MUNICIPAL BUILDING
200 S. MAIN
October 23, 2016
6:30 p.m.

AGENDA

1. [Call to Order](#)
2. [Roll Call and Excused Absences](#)
3. [Invocation](#)
4. [Pledge of Allegiance](#)
5. [Citizens to be Heard](#) - This is the only time during the Council Meeting that a citizen can address the City Council. It is the opportunity for visitors and guests to address the City Council on any issue to include agenda items. All visitors wishing to speak must fill out the Sign In Roster prior to the start of the meeting. City Council may not debate any non-agenda issue, nor may any action be taken on any non-agenda issue at this time, however, City Council may present any factual response to items brought up by citizens. (Attorney General Opinion - JC-0169) (Limit of three minutes each.)
6. [Public Hearing](#)
 - A. [The Cibolo City Council will hold a Public Hearing to hear public testimony regarding an update to the City of Cibolo Master Plan.](#)

CIBOLO, TEXAS

City of Orlando

- Focuses on 7 key areas:
 - Clean Energy
 - Green Buildings
 - Local Food Systems
 - Zero Waste
 - Livability
 - Clean Water
 - Multi-modal Transportation

What is a “Smart & Sustainable City” to Orlando?

Solving urban problems using technology and data to enhance our collective quality of life, make government more efficient, engage citizens more meaningfully, protect the environment, and create a diverse and robust economy.

A city that uses information and communications technology (ICT) to enhance its livability, workability, sustainability and resilience.



Uses **technology** to make critical infrastructure and City services more intelligent, interconnected, and efficient.

SMART CITIES ORLANDO

FOCUS AREAS

- Stakeholder Engagement
- Digital Infrastructure / ICT
- Public Safety
- Built Environment
- Energy & Utilities
- Transportation
- Water & Wastewater
- Waste Management



Focus Areas

- Smart Dumpsters
- Commercial Food Waste Collection
- Energy Efficiency
- Street Lighting
- Open Data
- Smart Energy Generation
- Lake Level Monitoring
- EV Charging Stations
- Fleet Vehicles
- Smart Parking

What does the City of Winter Park have that can be considered part of a Smart City?



1. Automated Meter Reading
2. Security Cameras
3. Open Data Portal
4. Online services – payments, citizen reporting portal, IVR
5. Weather stations
6. EOC Application
7. Drone
8. GIS data
9. Government Transparency Suite – Granicus
10. Virtual and Hybrid Meetings

What should be concentrate on first?



In my view, we should take a holistic look at cameras. Each department may use these in a different manner.

Eg. PD and FD can use for situational awareness.

PD can utilize LPR cameras for identifying stolen vehicles, to respond to silver and amber alerts etc.

PD and FD can use an integrated approach to fire and burglar alarms so they know what they're getting into.

Departments can use camera feeds/footage to corelate to incidents to identify potential issues.

Current camera rollout



Completed	Camera	Access Control	Burglar Alarm
Aloma Water plant	X	X	
Magnolia Plant	X	X	
Swoope Plant	X	X	
Wymore Plant	X	X	
Warehouse	X		
Street Building	X	X	
Fire Station 61	X	X	
Fire Station 64	X	X	
Farmers Market			X
Country Club	X		
Golf Course	X		
Cady way Pool	X		
Center Street	X		
Gate Intercom	X	X	
Gun Range	X	X	
Building 1		X	
Building 11		X	

Future camera rollout



Completed	Camera	Access Control	Burglar Alarm
City Hall	X	X	
Police Department	X	X	
Community Center	X	X	
Train Station	X	X	
Central Compound Yard	X		
Building 4	X	X	
Park Avenue Cameras	X	X	
Tennis Center	X	X	
Library			X
Event Center	X		

LiDAR in Smart City



- Improve traffic flow and safety
- Protect pedestrian safety
- Improve security in crowded public spaces
- Enforce social distancing and occupancy limits

KEY LESSONS LEARNED WITH SMART CITY TECHNOLOGIES



THE POWER OF SENSORS IS COMING TO YOUR COMMUNITY

THE NEED TO PROTECT, MONITOR, AND RECEIVE REAL TIME ALERTS ABOUT THE CONDITION OF PUBLIC INFRASTRUCTURE, OPERATIONS AND LOCAL ENVIRONMENT HAS NEVER BEEN SO IMPORTANT.

IMAGINE IF YOU HAD ACCESS TO A LOWER-COST, SECURE AND MULTI-PURPOSE SENSOR AND METER NETWORK THAT FOCUSED ON YOUR BUSINESS TRANSFORMATION NEEDS.

Senet, the leading operator of low-powered, long-range wireless networks using the open-standards LoRaWAN protocol, is building out their carrier-grade, secure sensor and metering network to cover Hillsborough County, the Greater Tampa Metro Market, Pinellas County, and the Greater St. Petersburg Metro Markets. MeterSYS, an IoT and metering solutions technology provider, is partnering with Senet to deliver customer sensor and metering solutions for your community.

Sensors have always been available for helping local governments remotely monitor their infrastructure, assets, and operations. However, it has always been a struggle to deploy high volumes of sensors and meters across a large geography because of high costs, battery power limitations, unreliable and proprietary communication networks, and time-lagging data. Not Anymore.

USE CASES



Monitor water and wastewater quality to detect compliance and health risks



Implement Advanced Water, Gas, and Electric metering



Monitor sewer, stormwater, and water overflow risks



Monitor and predict sewer and water leak risks to avoid main bursts and neighborhood water boil notices



Monitor in-building VOCs, CO₂ and other interior air quality health risks



Monitor outdoor air quality for unsafe health conditions



Reduce energy consumption



Smart Parking and Curb Management



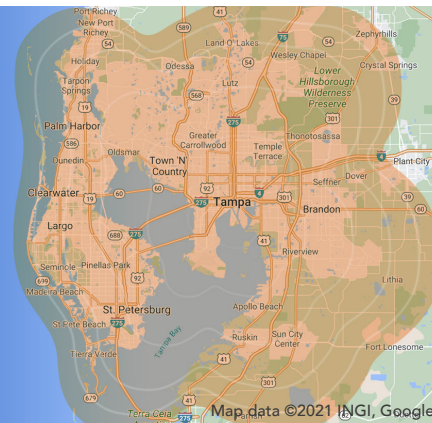
Flood detection on roadways, waterways, and neighborhoods



Water conservation including pipe condition monitoring, irrigation controls, and water consumption and leak detection for homes and commercial buildings

SENET TAMPA METRO REGION NETWORK

Senet is expanding its Low Power Wide Area IoT network to cover over 1,600 square miles across Hillsborough and Pinellas Counties, including the cities of Tampa Bay and St. Petersburg. This network will be the largest and densest metropolitan deployment of public carrier-grade LoRaWAN connectivity in North America, providing capacity to support over 16 million IoT device connections from over 80 planned tower sites.



ABOUT METERSYS

MeterSYS, an end-to-end smart technology solutions provider to public water utilities, municipalities and counties, specializes in testing, evaluating and implementing leading metering, sensor, and IoT solutions. SenthisSYS is our service that is focused solely on IoT solutions. The MeterSYS team partners with our clients to leverage advanced IoT and smart technology solutions to solve critical problems, including aging infrastructure, situational awareness, financial risks, sustainability, compliance mandates, and operating and resource constraints.



ABOUT SENET

Senet develops cloud-based software and services used by Network Operators, Application Developers, and System Integrators for the on-demand deployment of Internet of Things (IoT) networks. In addition to industrial and commercial applications, Senet has designed smart meter networks for many municipal water utility districts across North America, representing millions of households. With a multi-year head start over competing Low Power Wide Area Network technologies, Senet offers technology in over eighty countries and owns and operates the largest publicly available LoRaWAN network in North America. Our disruptive go-to-market models and critical technical advantages have helped us become a leading connectivity provider with recognized expertise in building and operating global IoT networks.



MeterSYS and Senet are both LoRa Alliance® Member companies. The LoRa Alliance is an open, nonprofit association that has become one of the largest and fastest-growing alliances in the technology sector since its inception in 2015. Its members collaborate closely and share expertise to develop and promote the LoRaWAN® standard, which is the de facto global standard for secure, carrier-grade IoT LPWAN connectivity.

If you are responsible for your Smart City roadmap, manage water operations, public works, sustainability and resilience, public safety, or have responsibilities across your community, we can address your questions at both high levels and in-depth. Contact us for more information.

info@metersys.com

844.881.8685

www.metersys.com

Department Smart City Needs

Parks and Recreation

1. Cameras

- Replace WP Community Center Cameras + add coverage to Media Center, Shady Park, and Parking
- MLK Community Playground and Parking Lot
- MLK Comstock Parking Lot
- Showalter Stadium Front Parking Area
- Ward Park Parking Lot – Multi Purpose Fields, Maintenance Yard, Ward Baseball Field lot (Loch Lomond)
- Azalea Lane Tennis and Recreation Center – Replace tennis cameras + add parking cameras
- Cady Way Trail – cameras at both City limit boundaries
- Mead Gardens – Parking lot cameras (Main Lot)
- Farmers Market – Update existing/add parking lot
- Phelps Park parking lot
- Howell Branch Preserve parking lot
- Central Park – North and South Ends

2. People Counters

- Cady Way Trail
- Central Park
- Winter Park Community Center (*indoor version*) – Capen entrance and New England entrance

3. Car Counters

- Ward/Showalter/Cady Way parking entrances
- MLK parking entrances (both lots)

PD

1. Cameras with ALPRS

- North Lakemont and Pine
- South Lakemont and Glenridge
- North Orlando Avenue
- South Orlando Avenue and Orange (2)
- Orange Avenue and Orlando
- Fairbanks and Formosa
- Lee Road and Bonnie Brae
- Aloma and Mayflower Ct
- Howell Branch and Venetian Way
- Howell Branch and Rapidan

2. Camera Replacement - Park Avenue

- Park Avenue and Fairbanks – (2) PTZ cameras and (2) 180 cameras
- Park Avenue and Lyman Ave – (4) PTZ cameras and (2) 180 cameras
- Park Avenue and New England – (4) PTZ cameras and (2) 180 cameras
- Park Avenue and Morse Blvd – (4) PTZ cameras and (2) 180 cameras
- Park Avenue and Canton Ave – (4) PTZ cameras and (2) 180 Cameras
- New York Blvd and Morse Blvd – (4) PTZ cameras

BUILDING AND PERMITTING

- Fully functional user friendly on line permitting requests for all projects (from simple trade permits to large building projects) along with submission of plans
- Electronic review of all building plans from all departments with detail plan review comments provided to applicants in a timely manner.
- Electronic payment and permit issuance of all permitted projects.
- Electronic inspection requests with results posted for all permitted projects.
- Electronic issuance of certificates of occupancies upon completion of all required inspections by all departments involved in the respective building projects.
- Implementation of remote virtual inspections (RVI) - [Remote Virtual Inspections \(RVI\) - ICC \(iccsafe.org\)](#) that we can use as our blueprint.
- Upgrade our IVR to include text messaging for inspections.

BUDGET

Smart City Hub

Create a HUB like the one below to display and correlate data from varied sources such as OpenGov, GIS, business databases, and city data.

<https://cg-hubdev-cggis.opendata.arcgis.com/>



Winter Park

Envisioning Smart City



Kathryn L. Averyheart, ATAE
Kyle Johnson, AE

Chris Black, Bus Dev IOT

Safe. Efficient. Connected

In 2021 Smart City is not an option. It is the next logical step.



- **Environmental Sensors** test proactively for Red Tide and warn residents / visitors to stay out of water or stay indoors.
- **Connected lighting and temperature sensors** provide a way for the police to communicate with citizens in real time as well as being eco friendly and budget conscious
- **Predictive Analytics and AI** provide situational awareness in real time to EMS and health services



But What Does That Mean?

Environmental Sensors

Sensors placed in water or to monitor air quality through out the City. Data from sensors shared through analytic dashboards with the City and Florida Fish and Wildlife. Winter Park would pre set levels for proactive monitoring and if they were too high a preset action would take place

Resolution:

- Email sent to city stakeholders to determine next steps with an update to the website
- Email / text / digital signage to alert all citizens and visitors to stay out of the water / update to the site
- An alert sent to the highway authority to add a message to local billboards, announcing all beaches / water entrances in Winter Park are closed for the time being.

Benefits to Winter Park:

- Lives Saved through proactive alerting for Red Tide / Allergens in air
- Reduce admissions to hospital through proactive awareness of enviro emergencies
- Ability to proactively treat animals in area / save animals and work with FFWC
- Efficient Staff scheduling due to closed beaches, areas in high risk times

Net Benefits

- Saving Money, Increasing Efficiency, Better data sharing with local agencies



But What Does That Mean?

Connected Lighting / Temperature Sensors

Utility poles can be used to house cameras, connected lights (with sensors), temperature sensors, and air quality sensors. They are pieces in the larger puzzle of situational awareness. In addition to providing real time data that helps police understand where and why crime is taking place in an area, they can be used as a communication tool between police and citizens.

Resolution:

- Winter Park citizens and visitors have an app for lighting. During emergency, app will summon the police.
- Cameras on the light poles are city property so unlike those on storefronts, data from them can be used to understand who committed a crime or if a stream of car thefts are happening in an area, if lighting the area will reduce that.
- Temperature sensors in buildings can alert Police / EMS if there is someone there after hours for investigation.

Benefits to Winter Park:

- Situational awareness leads to lives saved – on the Police force and in the civilian population
- Temperature sensors and cameras with communication capabilities tie into Winter Park for reduction in crime
- Connected lighting provides predictive data on bulb replacement and maintenance, leading to increased efficiency

Net Benefits:

- Situational Awareness, Increased Safety and Efficiency, and Saving Money



But What Does That Mean?

Predictive Analytics and AI to create integrated dashboards

Data and how you use it is the lifeblood of how data flows. Most organizations have their data in a number of silos and that makes truly predictive analytics and artificial intelligence difficult.

Resolution:

- Proactive assessment of threats keeps Winter Park safe from bad actors and those of malicious intent.
- Work within Winter Parks data structure to understand what data is needed for decision making .
- Enhance current structure with Business Intelligence, Machine Learning, AI, SOAR as needed
- Review options for automation platforms like SPLUNK, ServiceNow, to present self service to the city.

Benefits to Winter Park:

- A strong foundation of data will lead to a strong smart city that is able to continue for years.
- Understanding what is happening in the City happens at a micro level and is acted upon at a macro level. Working in the data and creating process flow for Winter Park will allow the City to move forward quickly – but logically as well.
- Many Ransomware attacks occur through easily maintained and out of date systems. Automation solves for that and pulls information into an easily reviewable and actionable space.

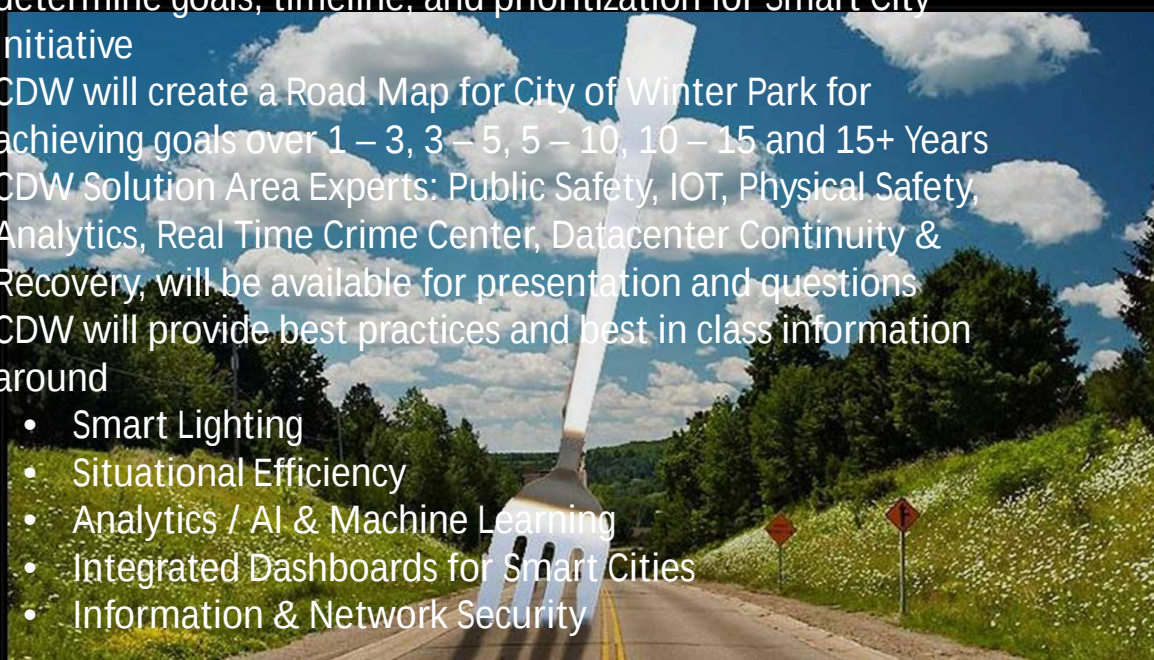
Net Benefits

- Efficiency, Process and Flow lead to reduced time on finding things and the right person. Money saved for the City.

What's Next?



- Workshop for City Stakeholders and Department Leads to determine goals, timeline, and prioritization for Smart City Initiative
- CDW will create a Road Map for City of Winter Park for achieving goals over 1 – 3, 3 – 5, 5 – 10, 10 – 15 and 15+ Years
- CDW Solution Area Experts: Public Safety, IOT, Physical Safety, Analytics, Real Time Crime Center, Datacenter Continuity & Recovery, will be available for presentation and questions
- CDW will provide best practices and best in class information around
 - Smart Lighting
 - Situational Efficiency
 - Analytics / AI & Machine Learning
 - Integrated Dashboards for Smart Cities
 - Information & Network Security



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Kyle Johnson, AE
312.705.9054
Kylej@cdw.com

Contact Kathryn & Kyle to schedule a Smart City Workshop.

A large, 3D red arrow pointing to the right, with a textured, particle-like effect trailing behind it.

Thank You!

- 
- The seal of the City of Honolulu is a circular emblem. It features a central illustration of a peacock with its tail feathers fanned out, perched on a branch. To the left of the peacock are two pink hibiscus flowers. The entire scene is set against a background of stylized trees and foliage. The words "CITY OF HONOLULU" are inscribed around the perimeter of the seal.
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