

# CityPlace Fire

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## March 20, 2017

On Monday afternoon, at 3:00, what began as a simple welding task, within minutes sparked into a fire up the side of a post on the second floor of the southernmost residential building under construction. Eventually it erupted into the biggest fire in Overland Park's history.

Two unoccupied residential buildings and four garages of CityPlace complex in the construction phase would ultimately be either completely destroyed or damaged beyond repair. Fires would soon also spread south into the neighboring residential area from radiant heat and embers carried by the wind, landing on the roofs of many houses.



Weather conditions

## CityPlace Fire March 20, 2017

### Weather conditions

Weather conditions exacerbated the spread and affected the paths of more fires. The area experienced drought conditions for most of March.

### Higher winds

Temperatures were unusually high in the metro area for March. Temps were in the 80's and winds were out of the northeast averaging around 10 mph, with gusts up to 25 mph.

### Small beginnings...

At 3:00, Monday afternoon, surveillance cameras picked up an image of a worker welding on the second floor of one of the last buildings being constructed on the site. In another image, taken less than 30 minutes later at the same location, the worker and truck were gone and a fire could be seen growing up the outside post of the building.

#### Intensity:

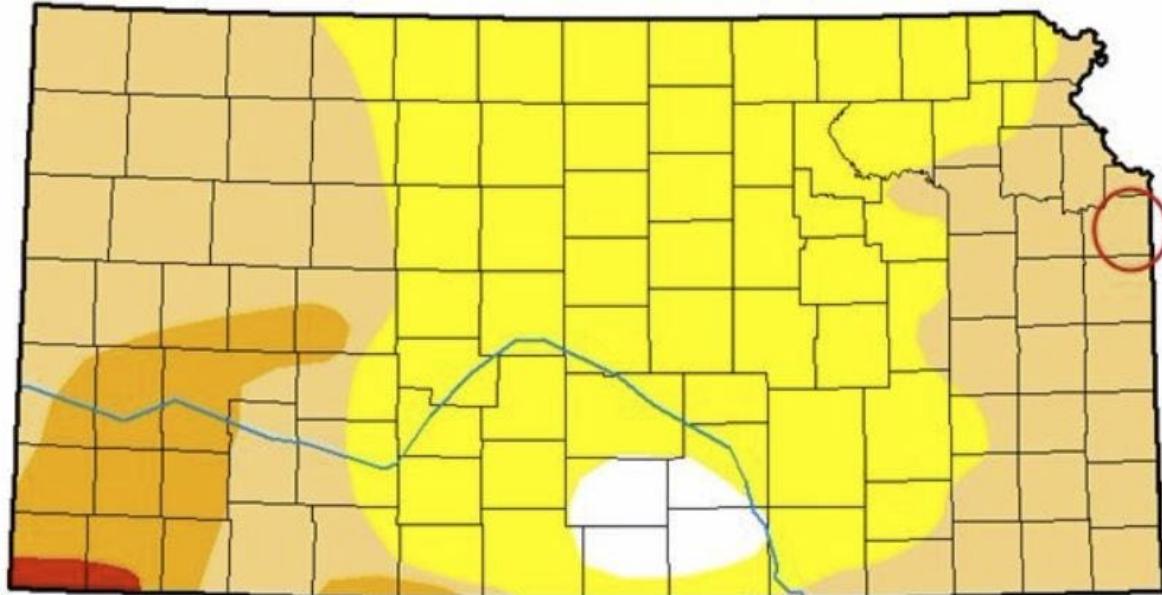
|                       |                      |                          |
|-----------------------|----------------------|--------------------------|
| D0 (Abnormally Dry)   | D2 (Severe Drought)  | D4 (Exceptional Drought) |
| D1 (Moderate Drought) | D3 (Extreme Drought) |                          |

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.*

#### Author(s):

Eric Luebehusen, U.S. Department of Agriculture

**March 21, 2017**



**Information source: The National Drought Mitigation Center – University of Nebraska, Lincoln**

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### The fire quickly spreads throughout the building

Surveillance cameras at around 3:40 p.m. captured images of the spread of the fire to the point smoke blocked out the view.

### CLIMATE REPORT NATIONAL WEATHER SERVICE KANSAS CITY/PLEASANT HILL MO 132 AM CDT TUE MAR 21 2017

...THE JOHNSON COUNTY EXECUTIVE KS CLIMATE SUMMARY FOR MARCH 20 2017...

CLIMATE NORMAL PERIOD 1981 TO 2010

CLIMATE RECORD PERIOD 9999 TO 9999

| WEATHER ITEM | OBSERVED<br>VALUE | TIME<br>(LST) | NORMAL<br>VALUE | DEPARTURE<br>FROM<br>NORMAL | LAST<br>YEAR |
|--------------|-------------------|---------------|-----------------|-----------------------------|--------------|
|--------------|-------------------|---------------|-----------------|-----------------------------|--------------|

#### TEMPERATURE (F)

##### YESTERDAY

|         |    |         |    |    |    |
|---------|----|---------|----|----|----|
| MAXIMUM | 82 | 301 PM  | 57 | 25 | 47 |
| MINIMUM | 59 | 1159 PM | 36 | 23 | 32 |
| AVERAGE | 71 |         | 46 | 25 | 40 |

#### PRECIPITATION (IN)

|               |      |      |       |      |
|---------------|------|------|-------|------|
| YESTERDAY     | 0.00 | 0.08 | -0.08 | T    |
| MONTH TO DATE | 0.32 | 1.75 | -1.43 | 0.87 |
| SINCE MAR 1   | 0.32 | 1.75 | -1.43 | 0.87 |
| SINCE JAN 1   | 1.24 | 4.44 | -3.20 | 2.12 |

#### DEGREE DAYS

##### HEATING

|               |      |      |      |      |
|---------------|------|------|------|------|
| YESTERDAY     | 0    | 19   | -19  | 25   |
| MONTH TO DATE | 373  | 442  | -69  | 275  |
| SINCE MAR 1   | 373  | 442  | -69  | 275  |
| SINCE JUL 1   | 3513 | 4335 | -822 | 3620 |

##### COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 6 | 0 | 6 | 0 |
| MONTH TO DATE | 9 | 0 | 9 | 0 |
| SINCE MAR 1   | 9 | 0 | 9 | 0 |
| SINCE JAN 1   | 9 | 0 | 9 | 0 |

#### WIND (MPH)

|                    |      |                        |         |
|--------------------|------|------------------------|---------|
| HIGHEST WIND SPEED | 18   | HIGHEST WIND DIRECTION | NE (40) |
| HIGHEST GUST SPEED | 25   | HIGHEST GUST DIRECTION | S (200) |
| AVERAGE WIND SPEED | 10.4 |                        |         |

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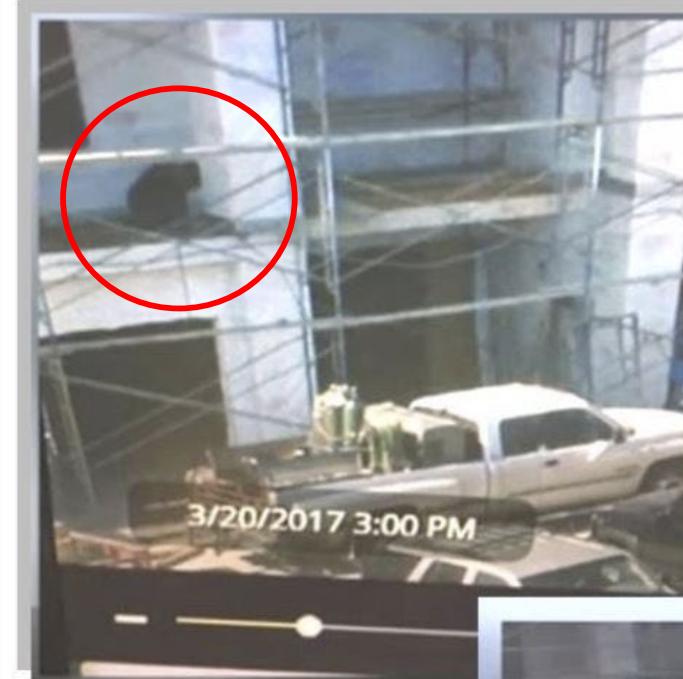
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### The fire quickly spreads throughout the building

Surveillance cameras at around 3:40 p.m. captured images of the spread of the fire to the point smoke blocked out the view.

### Winds carry smoke, ash and fire embers into adjoining neighborhood

The intensity of the fire grew, lifting smoke and embers into the air; then Northeastly winds carried the fire



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The intensity of the fire grew, lifting smoke and embers into the air; then Northeasterly winds carried the fire over the housing addition to the south. Radiant heat and falling hot embers ignited homes toward the south.

Fire doesn't care about property boundaries

A number of people in the adjoining housing area found that they were not beyond reach of the fire and its effects. Fires quickly began on multiple houses, mostly igniting from embers falling on



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Fires began immediately south of CityPlace complex, but soon other fires popped up throughout the area.

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March 20, 2017

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Fires began immediately south of CityPlace complex, but soon other fires popped up throughout the area.

### Radar picks up the plume

A local news broadcast showed radar imagery (left side of image) captured by the National Weather Service out of Pleasant Hill, Mo. The image displayed reflectivity from the plume as it moved southwest. The particle density ranges from red, representing the highest, to green showing the lowest. The radar image does not represent the location or extent of the fire, but the density of the plume at approximately 1500 feet



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### Animated radar imagery

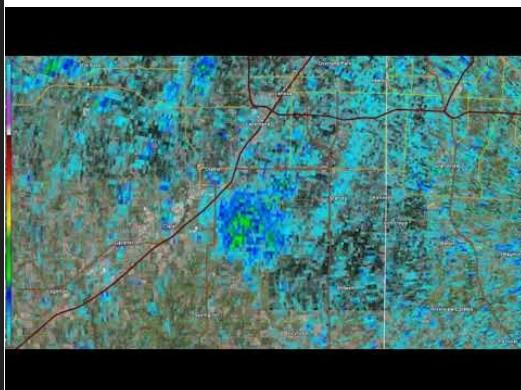
Animated imagery of radar provided by the National Weather Service shows the plume developing over the fire, then blowing to the south-southwest by the prevailing wind. The video begins at 3:20 p.m. and ends at 4:45 p.m. Color scheme shows high particle density in yellow and low density in green and blue.



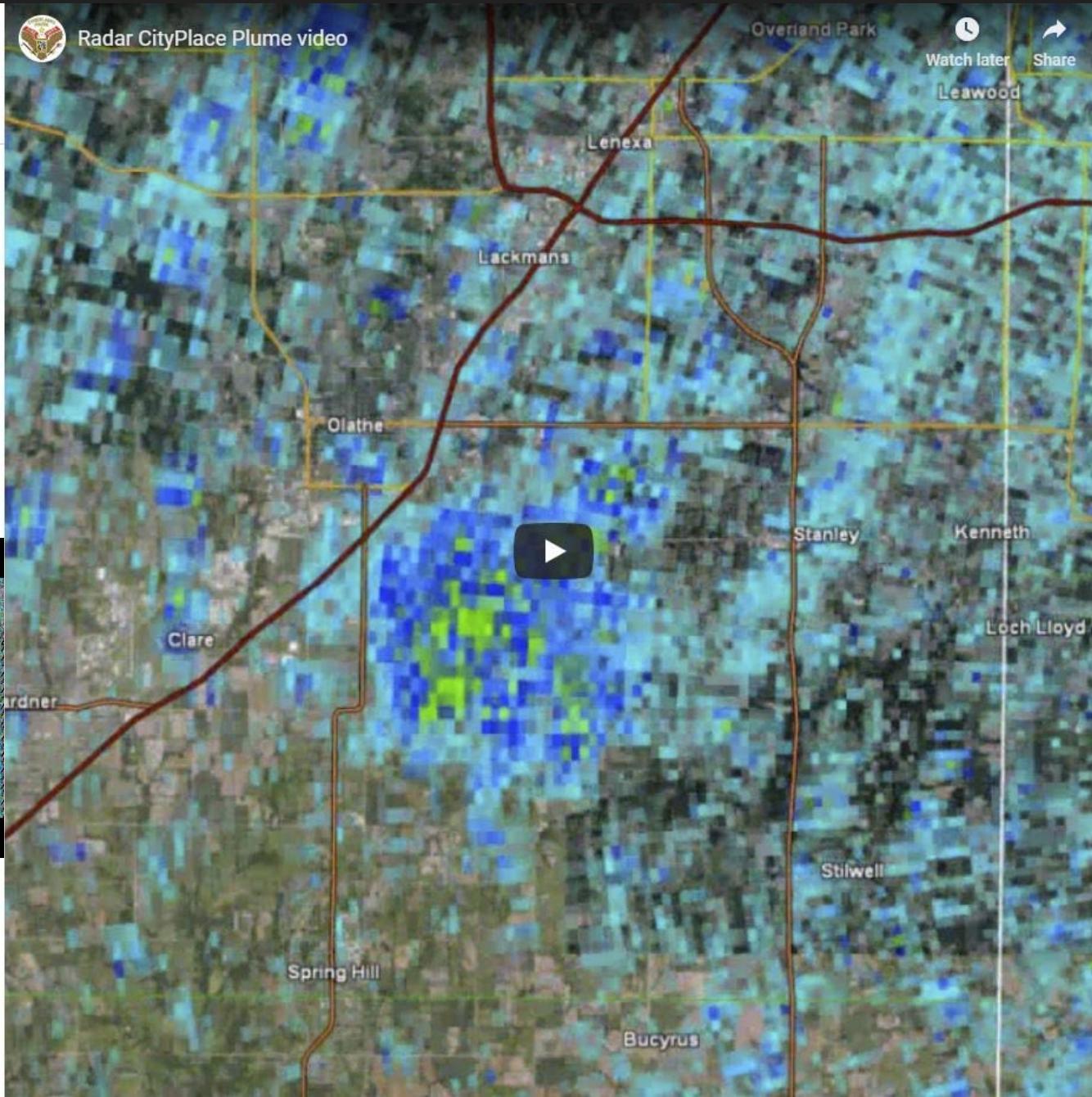
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55 seconds into the video, ashes fall into a shrub near the door and quickly burst into flames. Soon neighbors stepped in to put out the fire. The homeowner, at work at the time, was able to talk to the man attempting to put out the fire.





## CityPlace Fire March 20, 2017

### A doorbell tells the story

The adjacent eight minute video was provided by a homeowner living directly across the street from the first line of homes affected by the fire. It captured the early stages and demonstrates how intense fire and ashes escalated the rapid spread of fire.

55 seconds into the video, ashes fall into a shrub near the door and quickly burst into flames. Soon neighbors stepped in to put out the fire. The homeowner, at work at the time, was able to talk to the man attempting to put out the fire.

Ashes continued to fall throughout the video on the walkway. The flames increased from the CityPlace site and soon houses across the street caught on fire as fire squads continued to respond.







ring.com



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ring.com



House with doorbell video

## CityPlace Fire March 20, 2017

### The path of destruction spreads

By the end of the day, 13 duplex homes were destroyed by fire beyond repair and another 3 had significant damage. A few others had "up to some minimal damage." It was initially assessed that at least up to 16 homes suffered damage, however this number eventually grew to 32. Most of these were duplexes.

### Fire response

What began as a response from just the Overland Park Fire Department quickly became a multi-jurisdictional operation. Fire response came from Johnson County districts, Lenexa, Olathe, Leawood and Shawnee. Mutual aid response came from Lawrence and Kansas City, Kansas and Kansas City, Missouri as well. This eight alarm fire response only happened with the support of the region. Overland Park and the entire community praised the support from other jurisdictions.



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### The strategy in attacking the fire

The fire began in the CityPlace construction site at the southeastern large residential building. Fire personnel described the all wood construction site at this phase as being very vulnerable to fire.

Crews positioned ladder trucks to the west initially, out of the path of the wind and flames. By 4:00 p.m. the response was fully in place.



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As the flames grew and winds carried embers into the adjoining neighborhood, calls about roof fires flooded dispatch. The response quickly grew to include more stations.

The adjoining map shows times of calls coming into dispatch along with locations of types of trucks. Shaded polygons show the extent of final damage.

*Legend for assignments:*

### *Green - primary*

### **Orange** - secondary

### *Blue - third*



CityPlace Fire  
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### Largest in Overland Park's history

Veteran firefighters noted that this was by far the largest event they had contended with in their careers in the region. Late Monday evening, the primary fires were contained and early the next morning the fire was considered resolved.

The new day revealed the extent of the damage. It covered an area of almost one-half mile by one-eighth of a mile. Three firefighters went to local hospitals to be treated for minor injuries and were soon released. No civilians were hurt.

### The aftermath

After the fire, the process of assessing the extent of property damage and rebuilding began immediately. The City faced the possibility of handling more



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March 20, 2017

### The aftermath

After the fire, the process of assessing the extent of property damage and rebuilding began immediately. The City faced the possibility of handling more than 60 structures with various levels of reported damage, from minor to complete destruction.

### Post fire damage assessments

On the day of the fire, dispatch received calls from property owners related to damage to their property. The identified properties were part of the initial damage assessment by the OP Planning Department. These properties were divided into three major categories of assessment. (See the adjoining map.)

*Green - Minimal damage, Safe to occupy*

*Yellow - Structural damage, Limited entry*



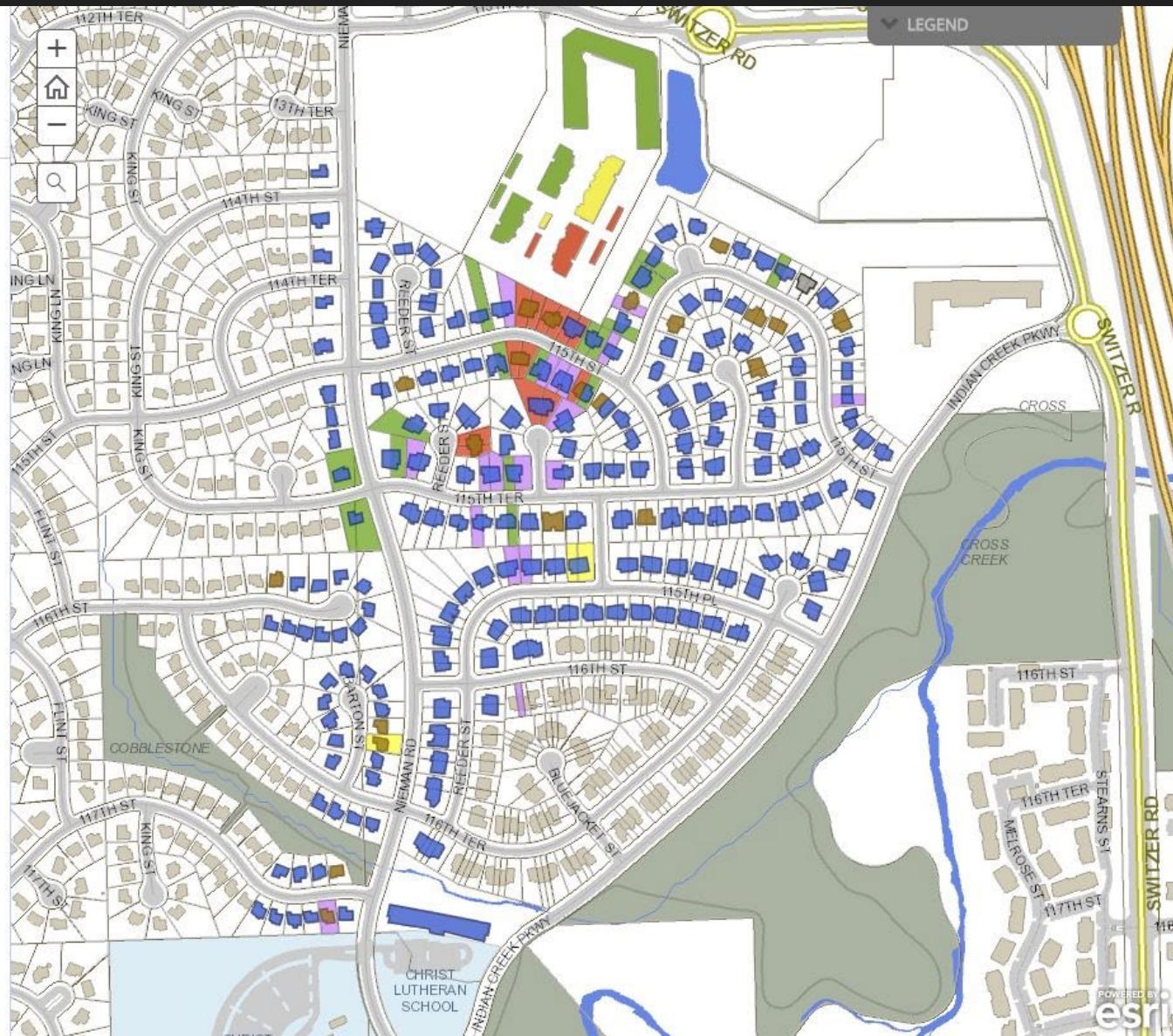
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Subsequent to the initial assessment were meetings with the surrounding property owners who called the OP Planning Department to report possible damage to their property related to the fire. These were recorded and are here shown in a **purple** shading.



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## CityPlace Fire March 20, 2017

### Permit activity post fire and damage assessments

Since the fire and property damage assessments, owners have begun the process of rebuilding.

The adjoining map shows current status of properties which have requested permits for demolition, new work to rebuild or repair work since the fire.

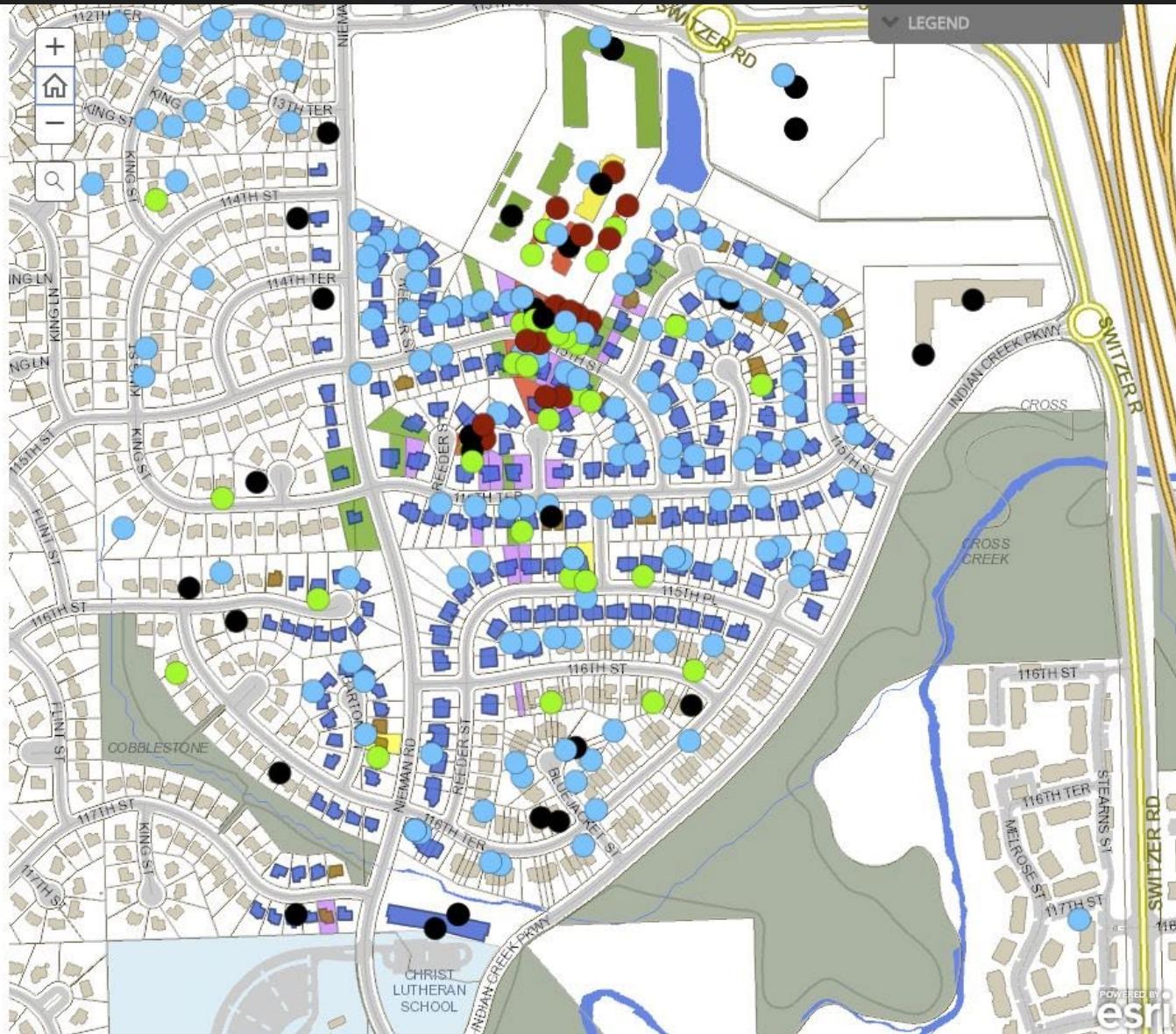
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*Blue* - New work permits

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## CityPlace Fire

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2 Years Later...

Since the fire, at CityPlace complex, damaged buildings are rebuilt and open. Also, additional construction is currently underway.

All the surrounding damaged houses as a result of the fire are rebuilt and most are occupied.

214 houses were surveyed for roof types in the surrounding neighborhood.

The percent of roof types of houses prior to the fire

Composition - 89.3%

Wood shake shingle - 10%

Metal - less than 1%

Currently percentage of roof types post the fire

Composition - 97.2%

Wood shake shingle - 2.8%

Metal - 0%

*Aerial imagery from March 2018*



# CityPlace

## Early attempts vs current

## City Place Fire March 20, 2017

On Monday afternoon, at 3:00, what began as a simple welding task, within minutes sparked into a fire up the side of the building post and eventually erupting into the biggest fire in Overland Park's history. Two buildings of a new complex under construction, City Place, would ultimately be either completely destroyed or significantly damaged beyond repair. Fires would soon also spread south into the neighboring residential area from radiant heat and embers being carried by the wind, landing on the roofs of many houses.

### Weather conditions

Weather conditions did not help in preventing the spread and path of more fires. The area had been experiencing drought like conditions for most of March.



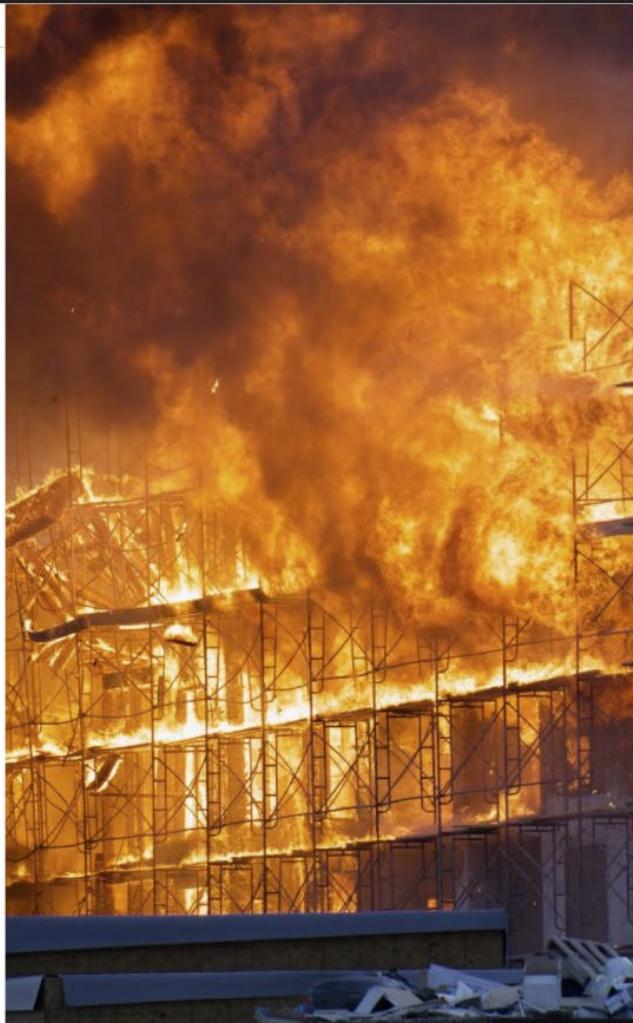
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Early

Revised current

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*News items showing radar reflection of plume over CityPlace*

Animated radar imagery

Animated imagery of radar provided by the National Weather Service shows the plume developing over the fire, then blowing to the south-southwest by the prevailing wind. The video begins at 3:20 p.m. and ends at 4:45 p.m. Color scheme shows high particle density in yellow and low density in green and blue.



*Animation of radar imagery of plume by National Weather Service*

**As OPFD saw the capabilities they asked for additions to aide them in the presentation.**

A doorbell tells the story

The adjacent eight minute video was provided by a homeowner living directly across the street from the first line of homes affected by the fire. It captured the early stages and demonstrates how intense fire and ashes escalated the rapid spread of fire.

55 seconds into the video, ashes fall into a shrub near the door and quickly burst into flames. Soon neighbors stepped in to put out the fire. The homeowner, at work at the time, was able to talk to the man attempting to put out the fire.

Ashes continued to fall throughout the video on the walkway. The flames increased from the CityPlace site and soon houses across the street caught on fire as fire squads continued to respond.



*Doorbell video provided by homeowner which allowed them to see active intensity of fire and how embers were a factor in the spread of the fire.*

City Place Fire  
March 20, 2017

The strategy in attacking the fire.

The fire initially began in the City Place construction site in the southeastern large residential building. It was in a phase of construction that was described as being very vulnerable. All wood structure was exposed in an open area.

Ladder trucks were positioned to the west initially, out of the path of the wind and flames. By 4:00 PM the response was fully in place.



Image from news helicopter.  
As the flames grew and winds began carrying embers into the adjoining neighborhood, calls flooded dispatch with roof fires. The response quickly grew to include more stations.

The adjoining map shows times of calls coming into dispatch along with locations of types of trucks. Shaded polygons show the extent of final damage.

NOTE: Legend for fire assignments:  
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Revised current

Other slides were added, and later edited, relating to damage assessment and rebuilding efforts, through permit tracking application

## OVERLAND PARK KANSAS

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### Permit Activity Post Fire and Damage Assessments

Since the fire and property damage assessments, owners have begun the process of rebuilding. The adjoining map shows properties which have requested permits for demolition, new work to rebuild or repair work as of March 21, 2017 till current date.

The large "asterisk type" shaded symbols shows these properties.

**Blue** - Shows "New work permits"  
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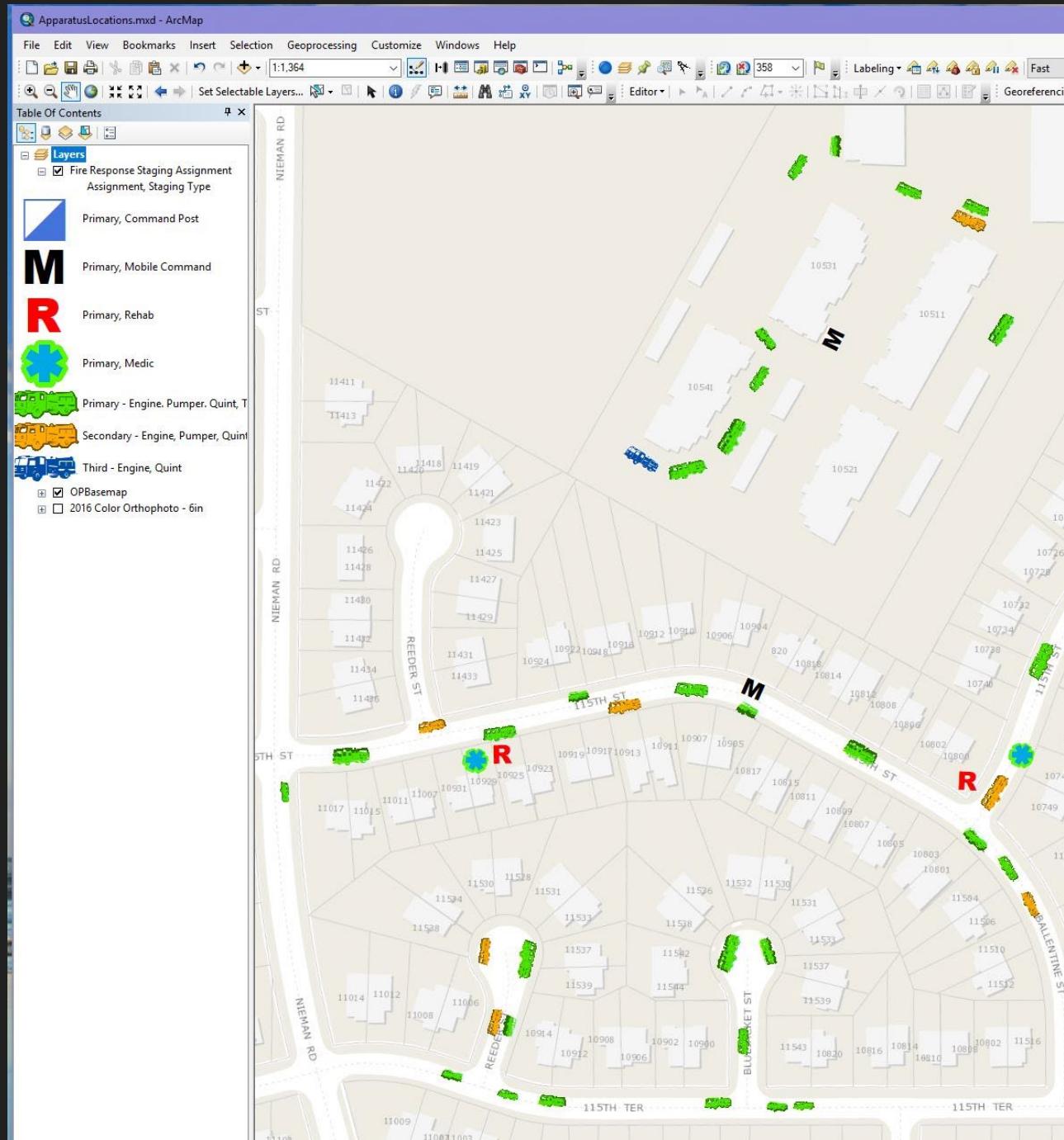
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Early

Revised current

Creating symbols and  
feature service for apparatus





Link to Story Map: <http://arcg.is/1qqq0L0>

GIS contact: Steve Brown

[steve.brown@opkansas.org](mailto:steve.brown@opkansas.org)

913.895.6204

OPFD contact: Chief Bryan Dehner

[bryan.dehner@opkansas.org](mailto:bryan.dehner@opkansas.org)