

# Electric Infrastructure Improvements

## Proposed Infrastructure Improvements

### 4-12kV Conversion (\$36.8M)

- Replace/Upgrade/Modernize:
- Convert 26 4kV Circuits to 12kV
  - Eliminate antiquated 33-4kV sub-transmission system and associated substation transformers
  - Eliminate antiquated 69-4kV sub-transmission system and associated substation transformers

kV = kilovolt

### Substation Upgrades (\$88.1M)

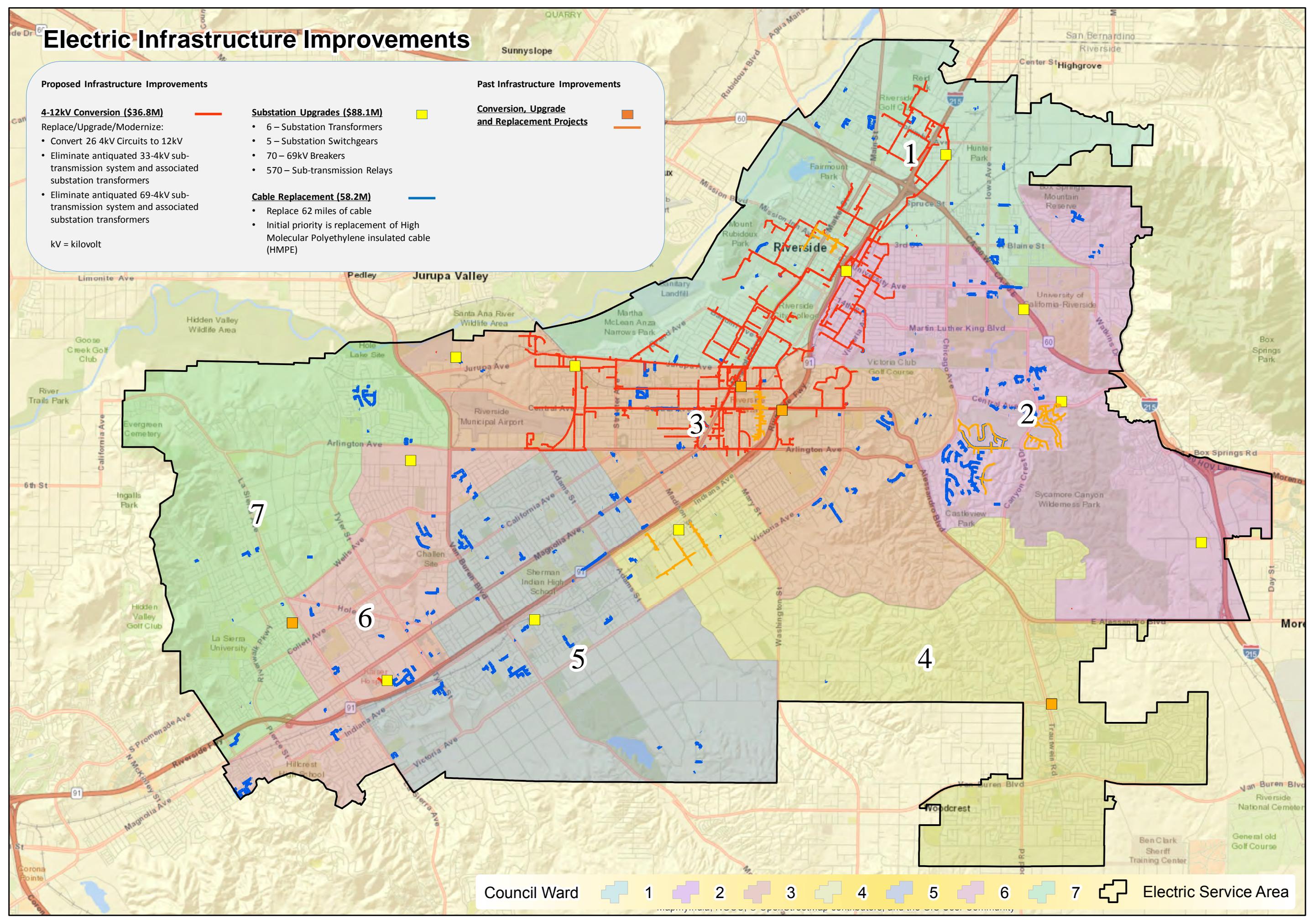
- 6 – Substation Transformers
- 5 – Substation Switchgears
- 70 – 69kV Breakers
- 570 – Sub-transmission Relays

### Cable Replacement (\$8.2M)

- Replace 62 miles of cable
- Initial priority is replacement of High Molecular Polyethylene insulated cable (HMPE)

## Past Infrastructure Improvements

### Conversion, Upgrade and Replacement Projects



Council Ward



Electric Service Area

# Electric Infrastructure Improvements

Council Ward 1

## Proposed Infrastructure Improvements

### 4-12kV Conversion (\$36.8M)

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## Modified Option 1

### Substation Upgrades (\$88.1M)

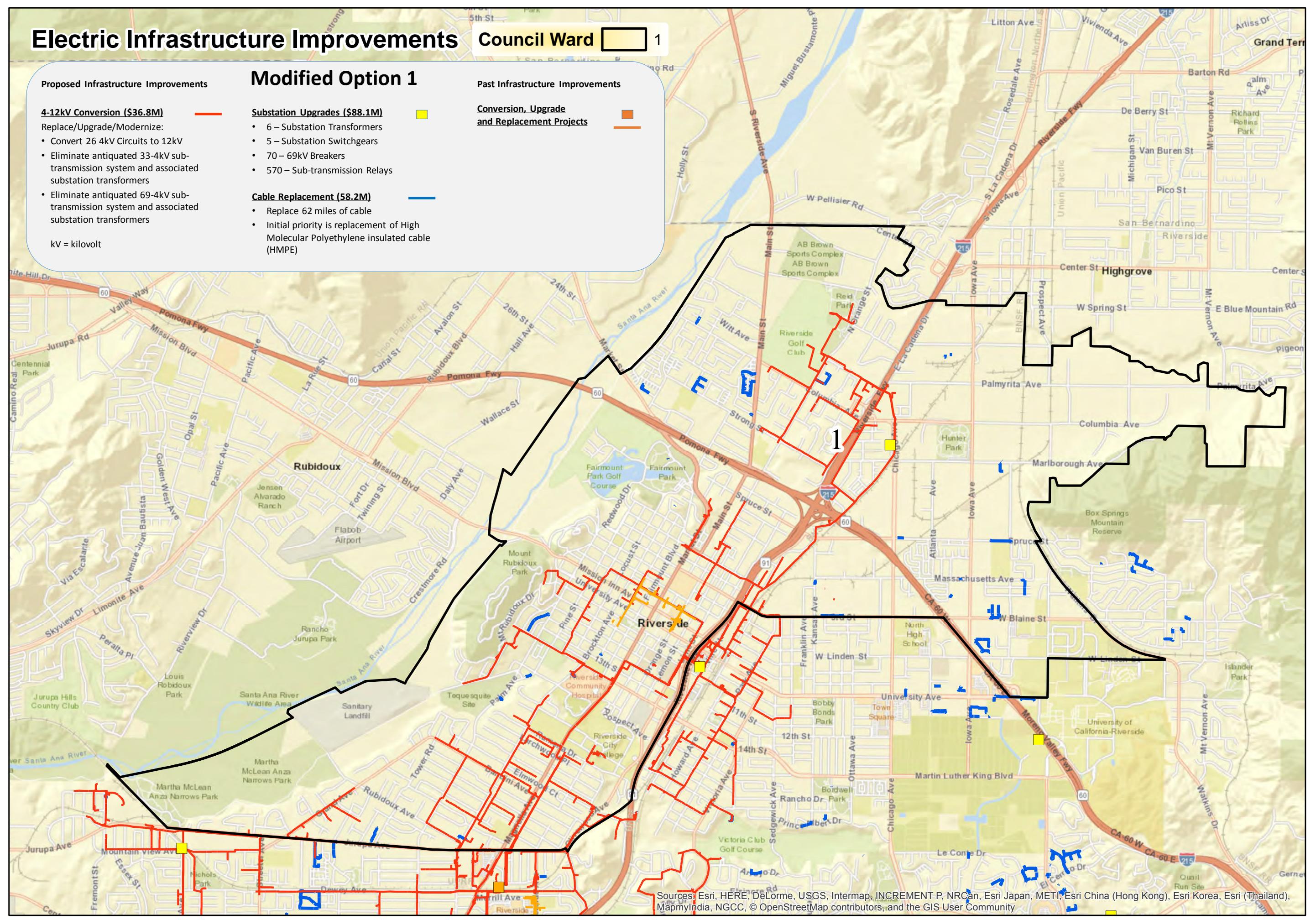
- 6 – Substation Transformers
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- 70 – 69kV Breakers
- 570 – Sub-transmission Relays

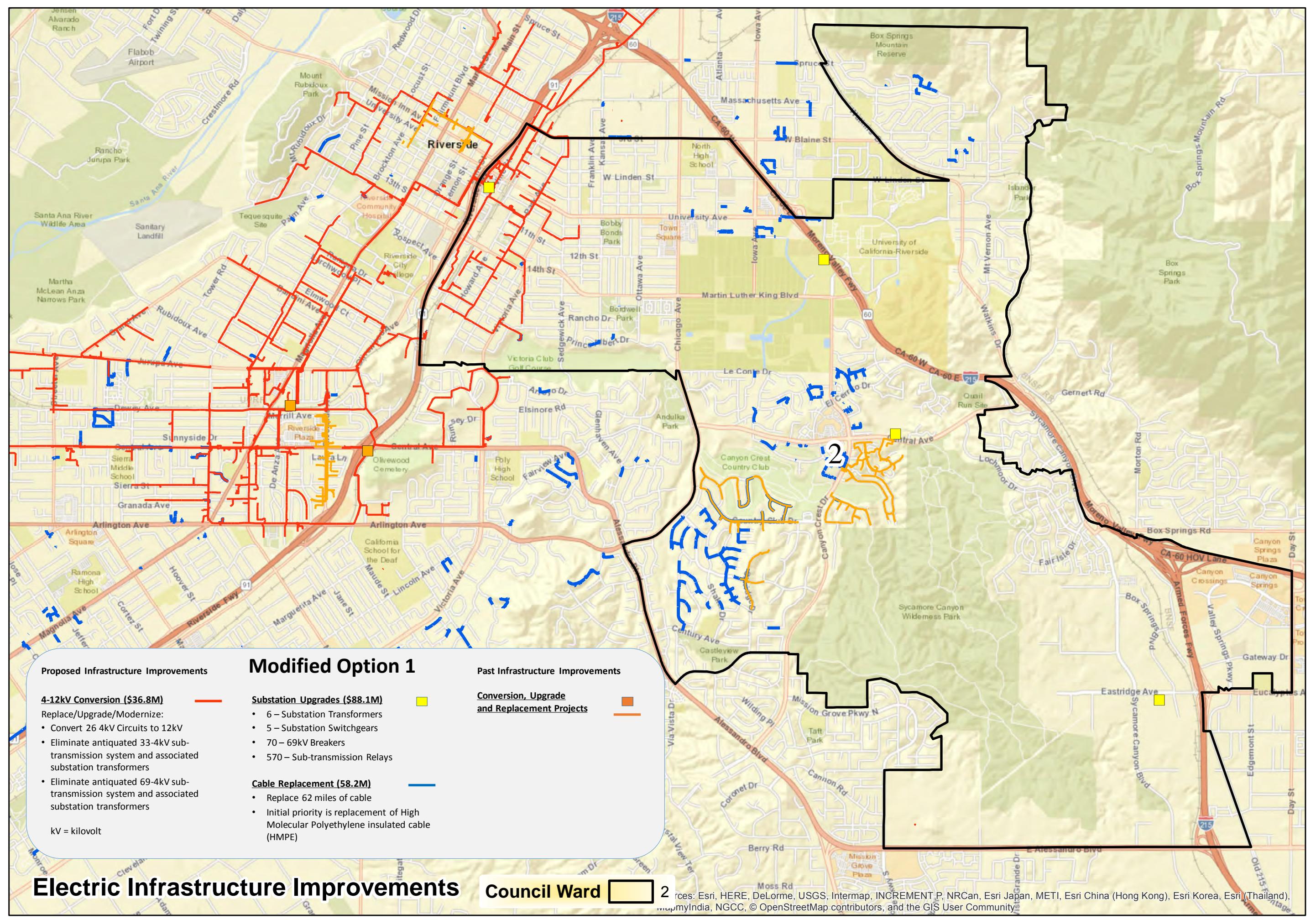
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## Past Infrastructure Improvements

### Conversion, Upgrade and Replacement Projects





**Proposed Infrastructure Improvements**

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kV = kilovolt

**Modified Option 1**

**Substation Upgrades (\$88.1M)**

- 6 – Substation Transformers
- 5 – Substation Switchgears
- 70 – 69kV Breakers
- 570 – Sub-transmission Relays

**Cable Replacement (\$58.2M)**

- Replace 62 miles of cable
- Initial priority is replacement of High Molecular Polyethylene insulated cable (HMPE)

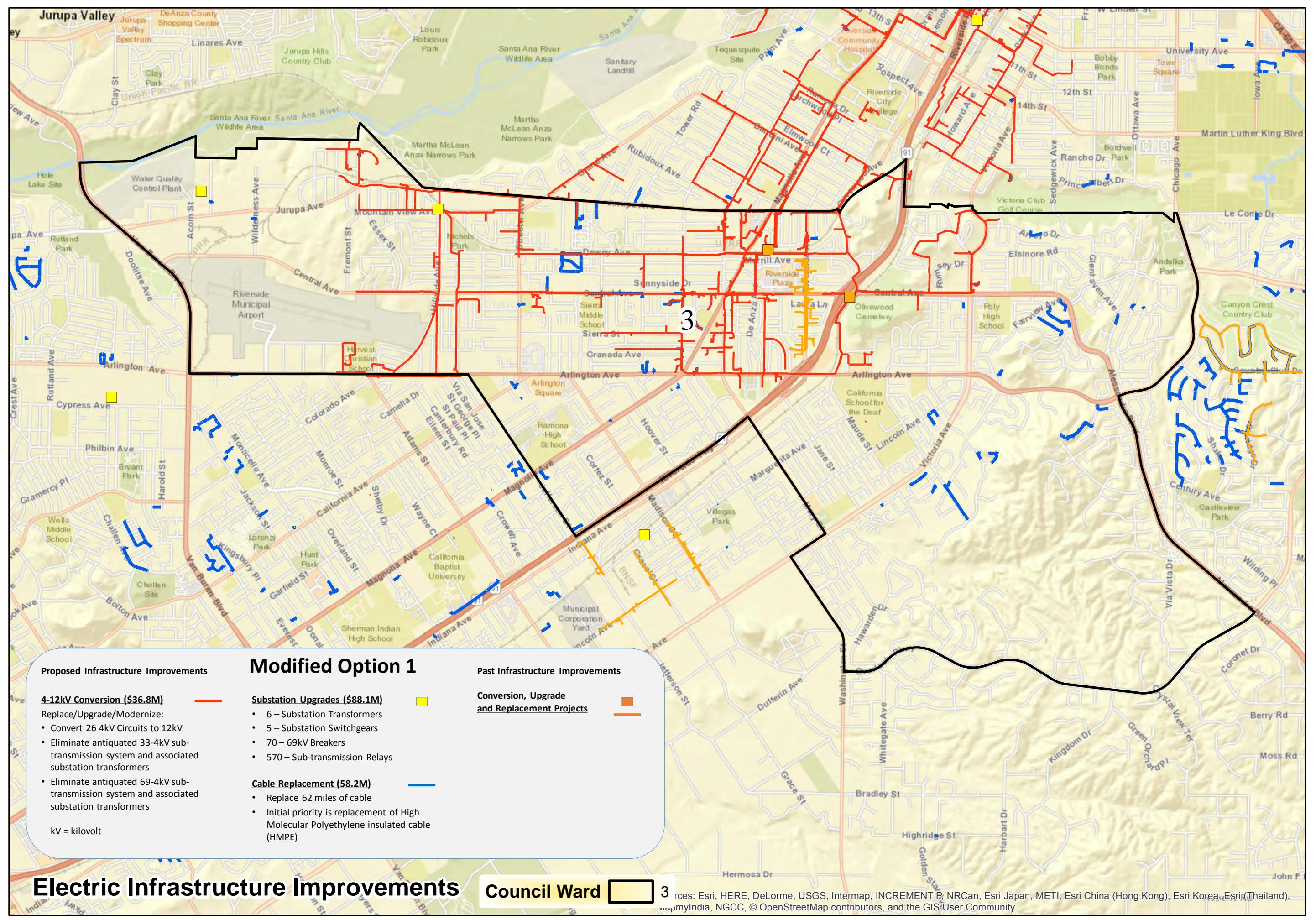
**Past Infrastructure Improvements**

**Conversion, Upgrade and Replacement Projects**

**Electric Infrastructure Improvements**

**Council Ward**

**2**



**Proposed Infrastructure Improvements**

**4-12kV Conversion (\$36.8M)**

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kV = kilovolt

**Modified Option 1**

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- 5 – Substation Switchgears
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**Cable Replacement (\$58.2M)**

- Replace 62 miles of cable
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**Past Infrastructure Improvements**

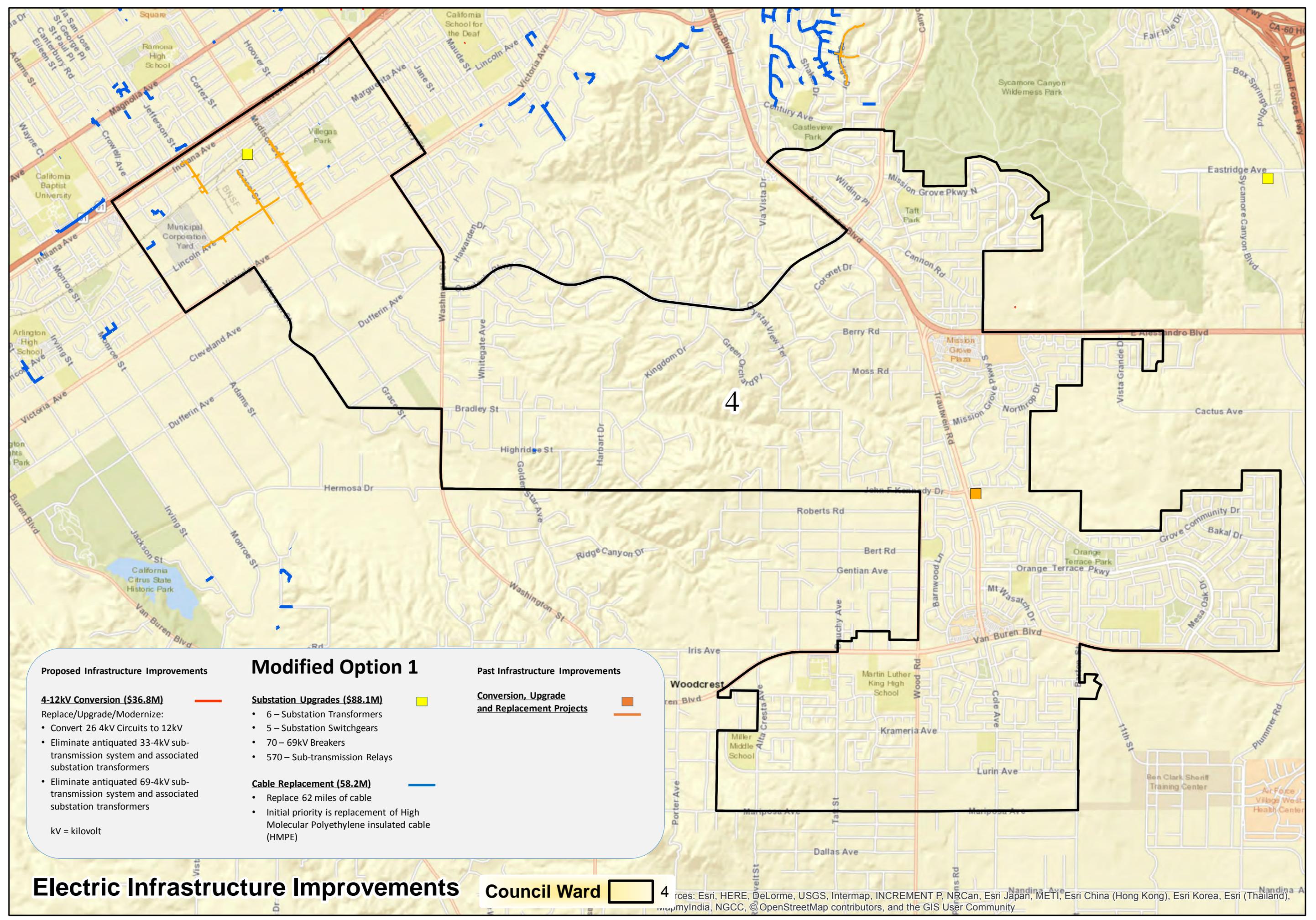
**Conversion, Upgrade and Replacement Projects**

**Electric Infrastructure Improvements**

**Council Ward**

**3**

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), SwamyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



**Proposed Infrastructure Improvements**

**4-12kV Conversion (\$36.8M)**

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**Modified Option 1**

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**Cable Replacement (\$58.2M)**

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**Past Infrastructure Improvements**

**Conversion, Upgrade and Replacement Projects**

**Electric Infrastructure Improvements**

**Council Ward 4**

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# Electric Infrastructure Improvements

Council Ward 5

## Proposed Infrastructure Improvements

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## Modified Option 1

### Substation Upgrades (\$88.1M)

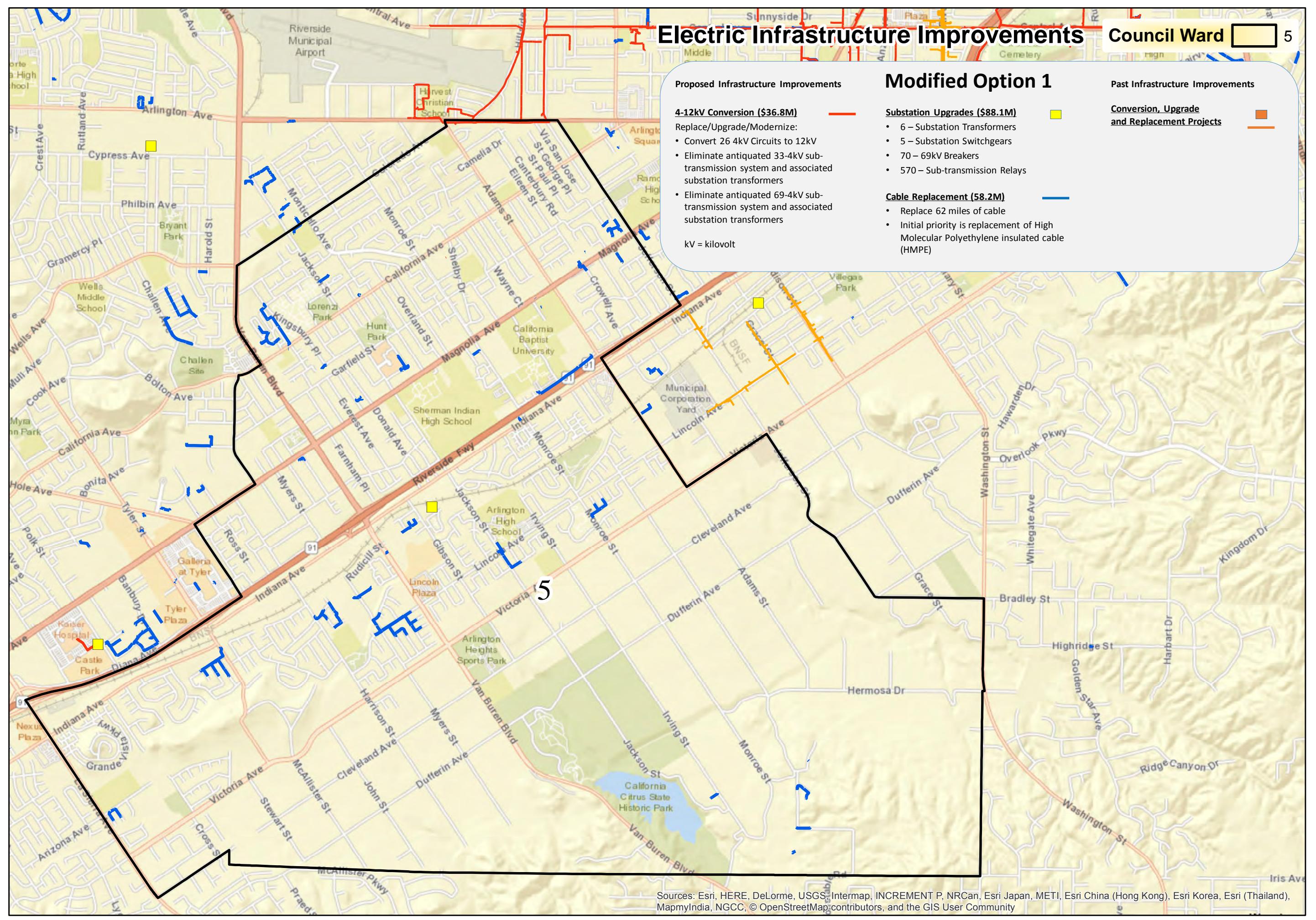
- 6 – Substation Transformers
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## Past Infrastructure Improvements

Conversion, Upgrade and Replacement Projects



# Electric Infrastructure Improvements

Council Ward 6

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## Modified Option 1

### Substation Upgrades (\$88.1M)

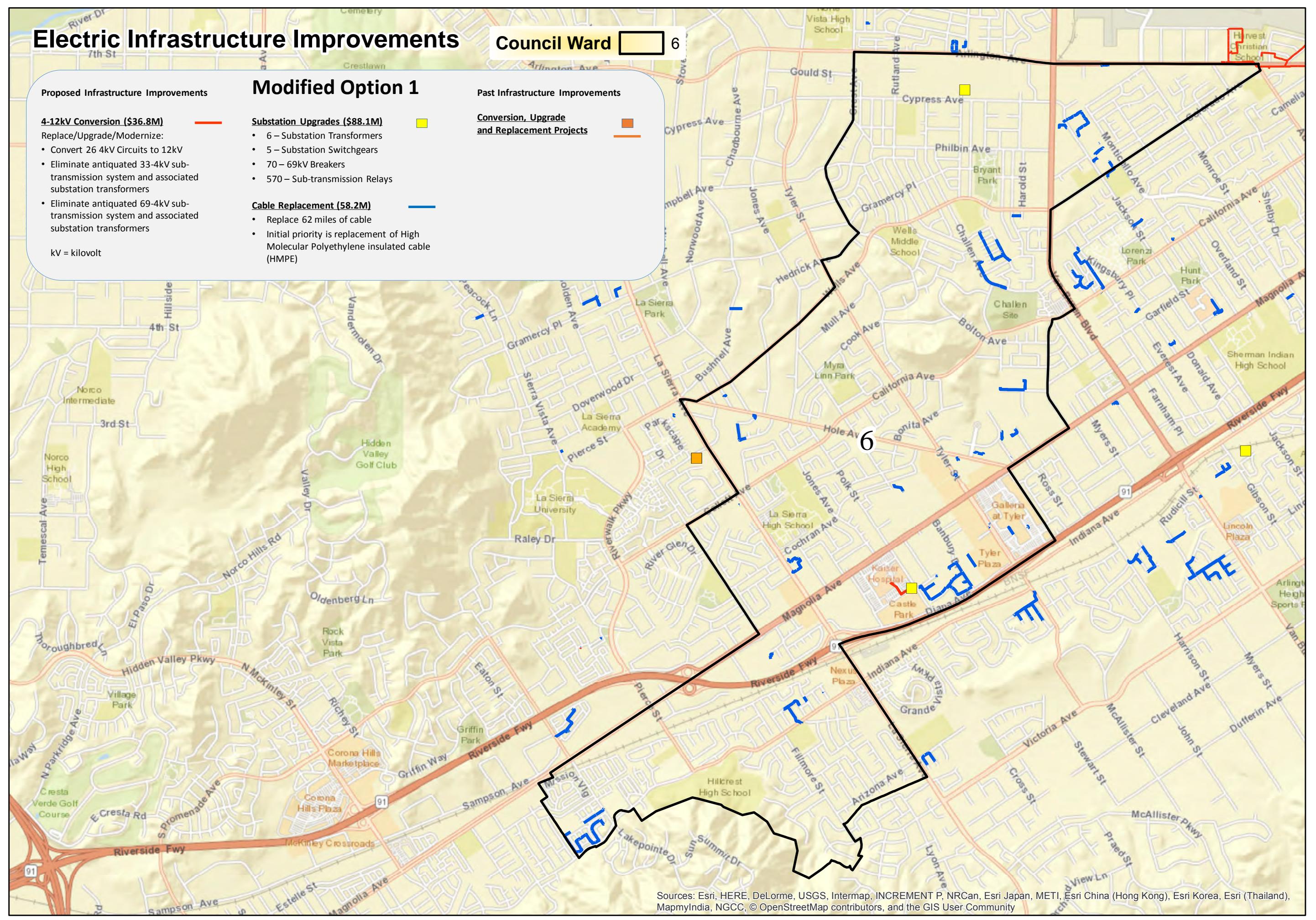
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- 570 – Sub-transmission Relays

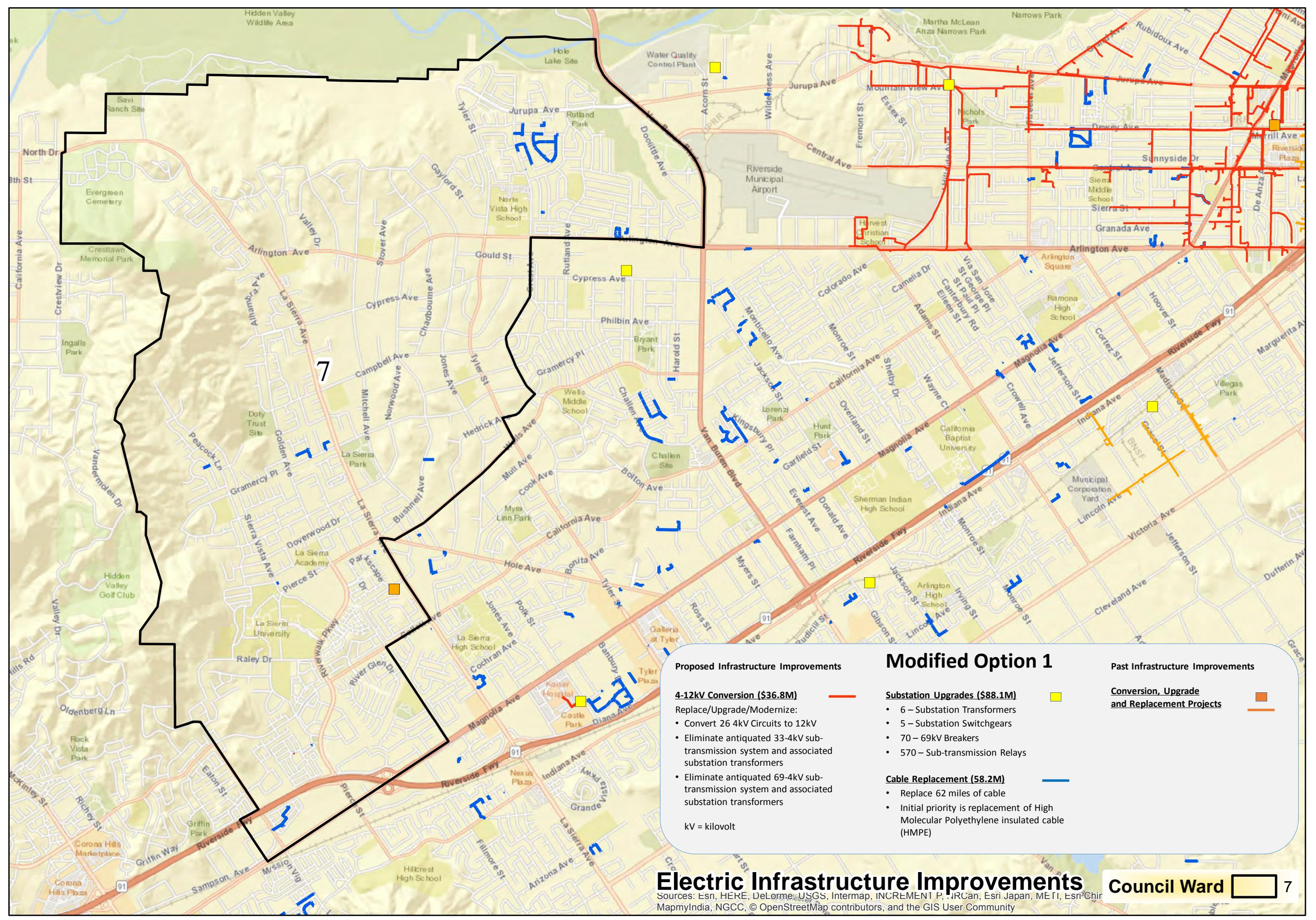
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## Past Infrastructure Improvements

### Conversion, Upgrade and Replacement Projects





### Proposed Infrastructure Improvements

**4-12kV Conversion (\$36.8M)** —

Replace/Upgrade/Modernize:

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**Substation Upgrades (\$88.1M)** ■

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**Cable Replacement (\$58.2M)** —

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**Past Infrastructure Improvements**

**Conversion, Upgrade and Replacement Projects** —