

Payson Transportation Collector Improvements



Mountainland AOG



600 East Funding

- City was granted \$226k in Utah County Transportation Sales Tax Funds
- Funding available in Jan 2015
- Project limits are 100 N to 800 S
- Includes completing curb, gutter, sidewalk and shoulder in 7 locations
- Will complete full width cross section
- Does not address narrow pavement conditions



UDOT Study



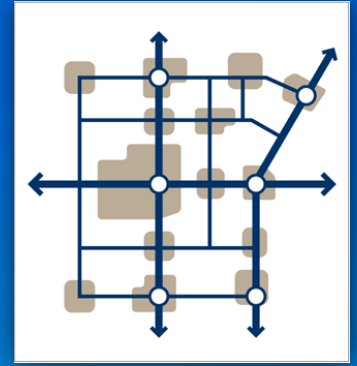
- UDOT just started a study looking at the I-15 / Payson Main ST Interchange as well as HWY 198
- The study will look at...
 - Location and design of interchange
 - New eastside highway connecting to interchange
 - Main ST connection to 100 West
 - Impacts of widening HWY 198
 - Can we not widen HWY 198

Arterial Roads Problem

- HWY 198 in 2025 at failure
- Difficult today for cross traffic to cross
- Payson lacks major through roads
 - Major roads do not traverse the whole city
 - HWY 198 “elbows” in downtown
 - Main ST effectively ends in downtown (one-way street)
 - 800 South necks down after HWY 198

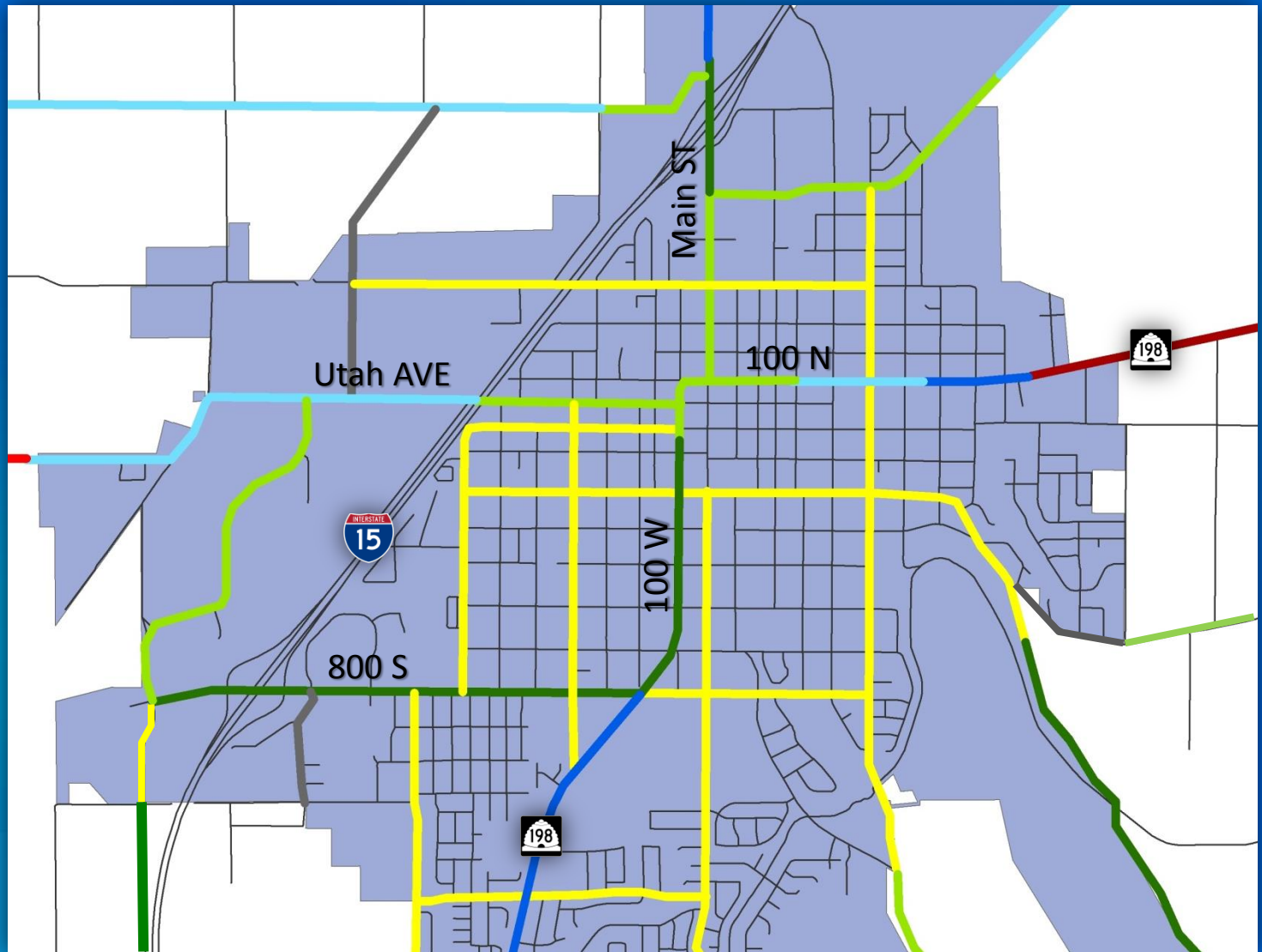
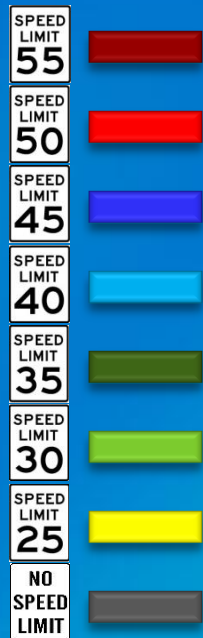


Collector System - Less Defined



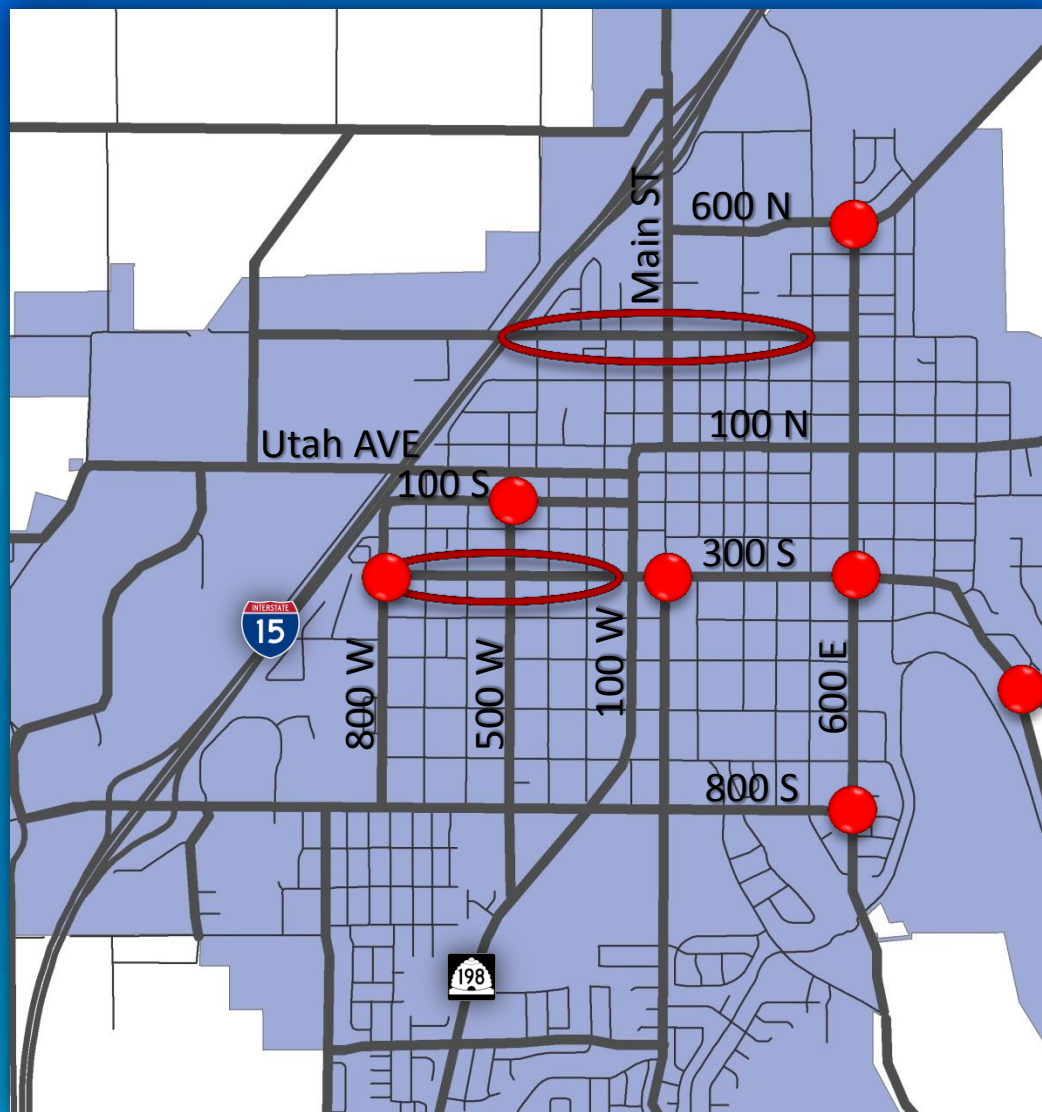
- Most traffic channels to main UDOT highways
- Collector system less defined, operates more like local roads
- All except 3 collectors currently have 25 mph speed limits
 - 600 North and American Way - 30 MPH
 - Utah Ave - 30 and 40 MPH (sort of)
- Some collectors have no posted speed limit
- Stop sign placement on streets adjoining collectors is sporadic

Current Speed Limits



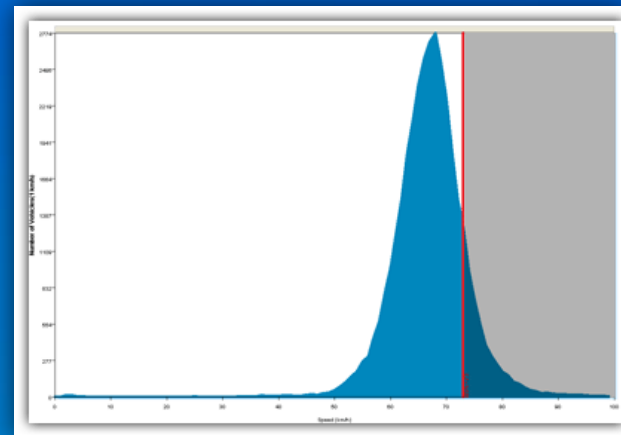
Collector Deficiencies

- • Limited or no stop signs facing local streets
- Corridor lacks definition
- • Intersecting collectors lack control and definition
- 3 and 4-way stops can define collector corridors
- Use as Traffic Calming in warranted locations



How to Set a Speed Limit

- Speed limits are commonly set using the 85th percentile rule
- Counters using tubes, cameras, sensors, etc. collect data of what speed each vehicle is traveling
- The MUTCD (adopted by all cities) supports 85th percentile rule
- This allows speeds to be set by engineering judgment and policy
- 85th rule, accident data, and any hazardous, or special conditions are used to set final speed limit

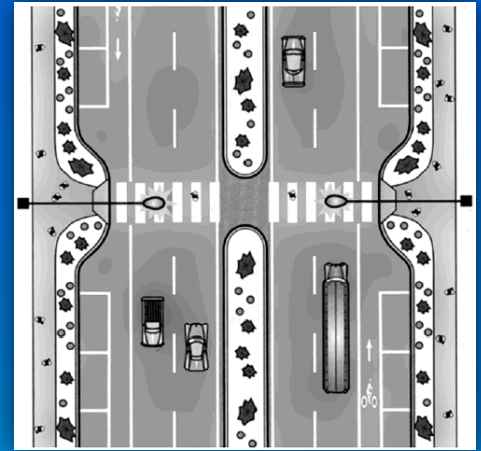


Enforcement



- Most drivers should be seen as lawful and drive safely (85% - studies support this)
- If speed limits are set too low for the design and functional type of the road, most drivers speed
- Not every street with a home on it can be a cul-de-sac
- Speed limits must be practical to enforce
- Myth = Raising posted speed encourages speeding

Orem 800 E Study



- In 2003, Orem did a major collector study
- Most collectors were posted at 25 MPH
- Orem 800 East | Posted speed 25 MPH | 85th speed 36.1 MPH
 - Curb Extensions were installed at school crosswalks, travel lanes were striped at 11 feet with shoulder line
 - Raised posted speed to 35 MPH
 - 85th speed 3 months later slightly dropped to 35.7 MPH

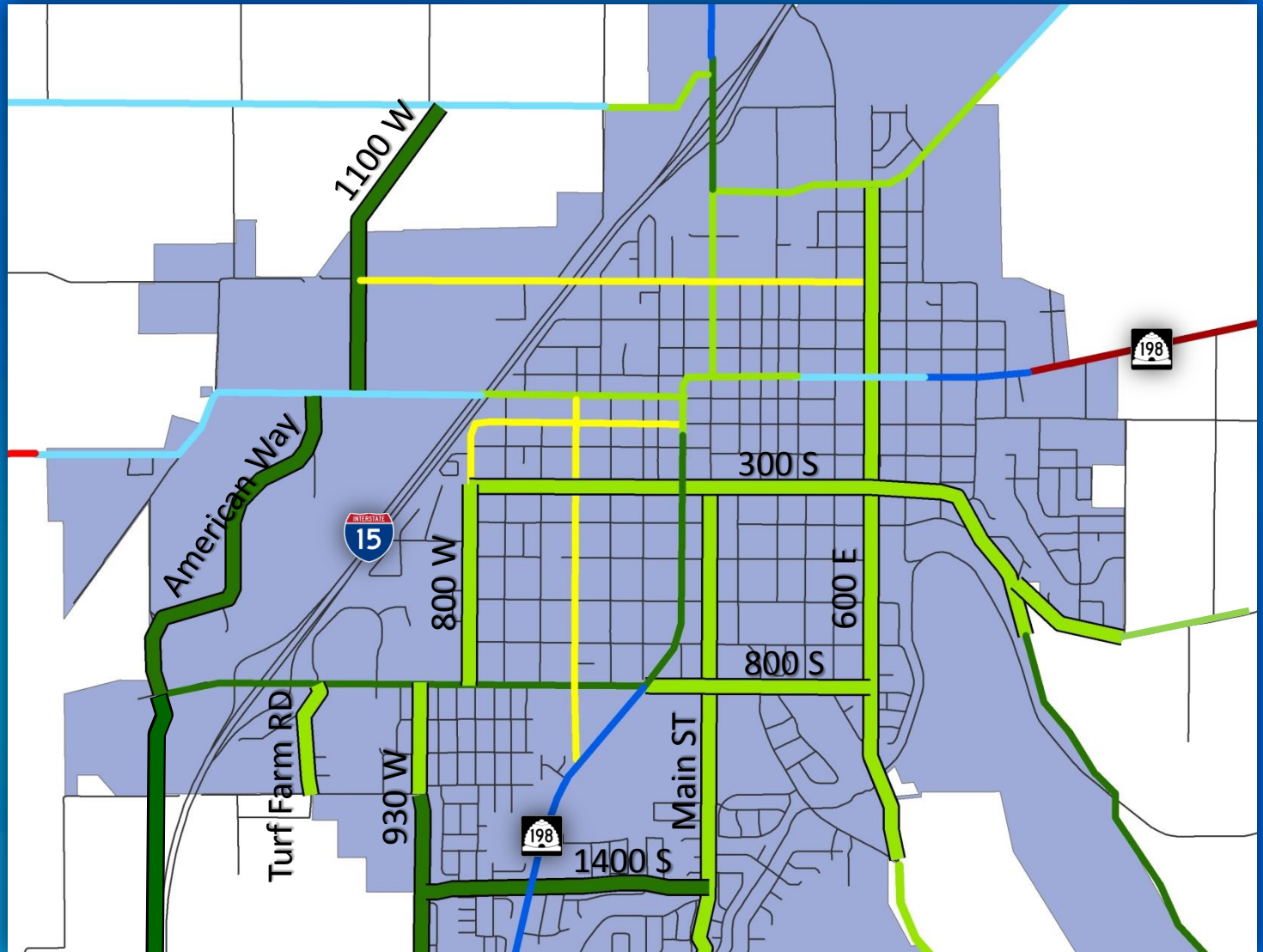
Payson Speed Test Results

Collector Name	Over 25mph	85 th % Speed	Over 85%
930 West	88%	38.7	12%
1400 South	95%	35.9	20%
Main ST (south of 100 S)	68%	30.6	19%
800 South (east side)	94%	35.6	18%
600 East (south side)	87%	33.4	8%
600 East (north side)	94%	35.9	20%
300 South (east side)	93%	35.7	18%
300 South (west side)	86%	34.3	12%
800 West	84%	34.0	10%
Turf Farm RD	44%	27.7	8%



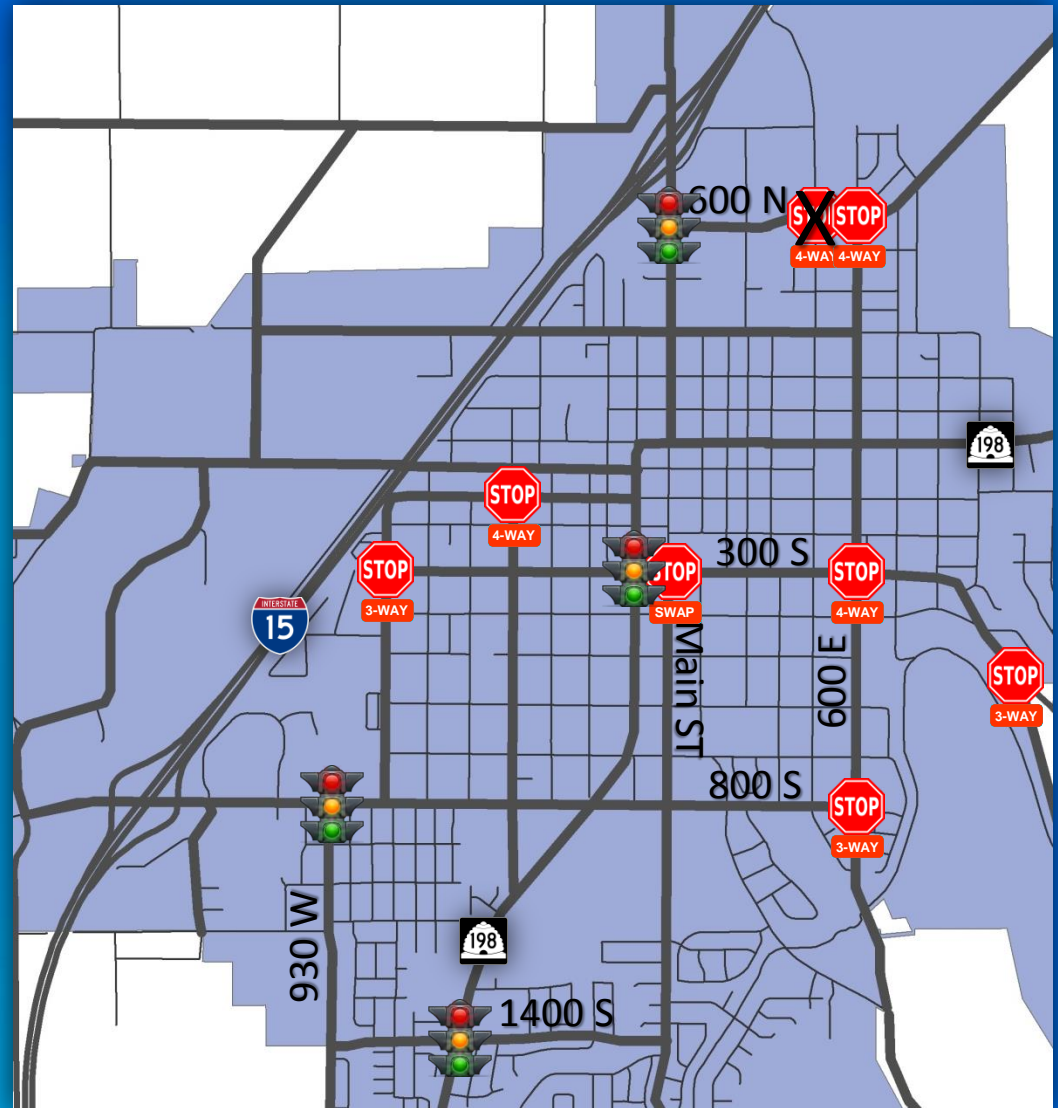
- Virtually all drivers go over the speed limit
- Turf Farm RD is an anomaly
- Most drive 30 to 35 MPH
- Setting to 85th speed would allow enforcement to focus on the 15% of speeders

Proposed Speed Limits



Proposed Traffic Control

1. New signals where collectors join highways, redistributes traffic
2. Request UDOT for new signal warrant studies
3. Stops at intersecting collectors, better defines corridors
4. Stops are an appropriate form of traffic calming if warranted
5. Swap current stop at Main/300S
6. Make 600 N/500W 2-Way Stop
600 N/600 E 4-Way Stop



Proposed Improvements



- Stop signs facing local streets to better define collector corridor



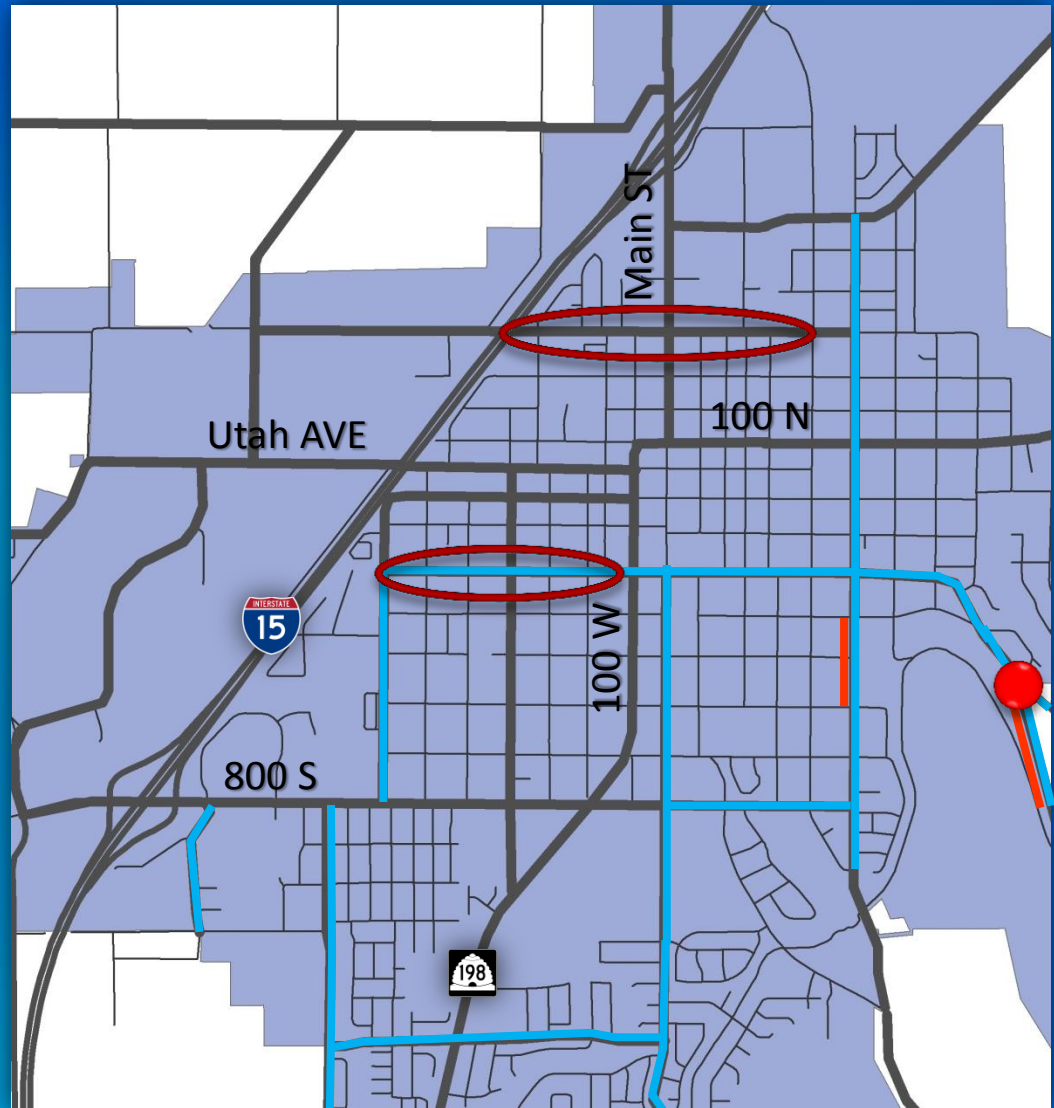
- Realign intersection to improve dangerous intersection



- 11 foot travel lanes with striped shoulders, calms traffic, can be used as bike lanes



- Remove on street parking, road too narrow



Next Steps

- Decide on proposed speed limit changes
- Work with UDOT on traffic signal studies
- Work on costs and implementation of proposed changes
- Locate locations that could benefit from Curb Extensions
- After speed limit changes, wait 3 months and conduct new speed studies
- Publish results of studies to educate citizens and politicians
- Address other non-regulated intersections

