

IRONTON TRAFFIC FLOW STUDY



KYVOA

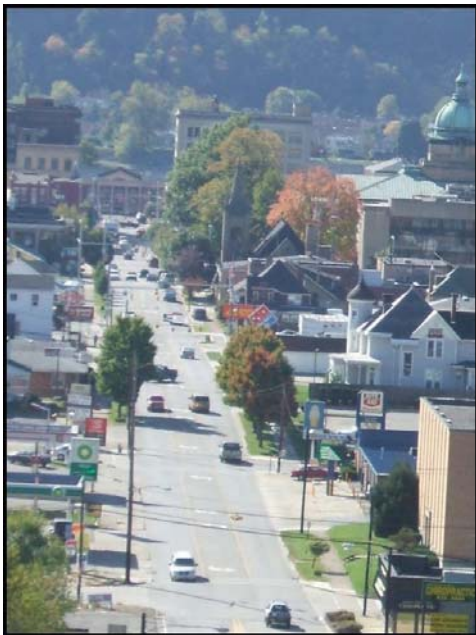
STUDY BACKGROUND

KYVOA Interstate Planning Commission and the City of Ironton in cooperation with the Ohio Department of Transportation (ODOT) initiated a comprehensive traffic study to accurately depict the flow of traffic within the City of Ironton. This comprehensive study evaluated the two-way and one-way traffic and the signalized and un-signalized intersections. The study also addressed on-street parking issues.

STUDY PHASES

The study was divided into the following phases:

- Inventory of Existing Signal Equipment;
- Assessment of Traffic Flows;
- Crash Analysis;
- Signal System Analysis;
- Evaluation of Existing System; Current Study Phase
- **Future Conditions Analysis;** and, ←←
- **Implementation Strategies** ←←



FOR MORE INFORMATION

www.wvs.state.wv.us/kyova/Ironton_Traffic_Flow_Study/index.html

Please Address Comments and Questions to:
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STUDY PROGRESS — March 2009

This study will provide a blueprint for the future of Ironton's transportation system. And, this study will develop a short, immediate, and long range plan for transportation improvements.

Projected traffic volumes (Year 2030) from ODOT were received on December 15, 2008. Tetra Tech performed capacity analyses and signal warrants on the Ironton traffic system. Tetra Tech also developed cost estimates for improvements and prioritizing the improvements into short, immediate, and long range plans. As part of the capacity analyses, an emissions analysis was developed.

Schedule:

- Complete Capacity Analyses & Signal Warrant : End of January 2009
- Complete Draft Plan: End of January 2009
- Stakeholder Meeting: February 2009
- Public Involvement Meeting: March 2009
- Final Stakeholder Meeting: March 2009

IMPROVEMENTS CONSIDERED FOR FURTHER ANALYSIS

- Consider raising 2nd Street bridge
- Consider new signals
- Consider new signal poles
- Consider new mast arms
- Consider ITS applications
- Improve pedestrian crossings
- Improve turning radii
- Address increasing parking
- Add ADA ramps
- Improve US 52/University area to 3rd Street flow



Signal Equipment Evaluated

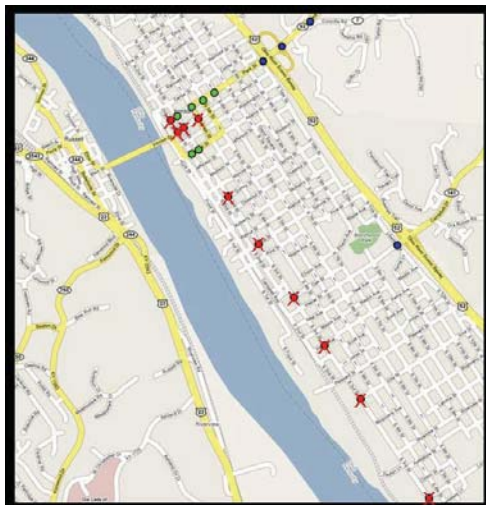
Street Lights
New Decorative Poles
Pole Foundations
Controllers w/cabinet
Curb Ramps
UPS
Pull Boxes
New Signal Heads
Pedestrian Pedestals
Pedestrian Heads
Pushbuttons
Loops
Master Controller
Signal Cable
Loop Lead-in
Interconnect
Conduit in paved area

FURTHER ANALYSIS OF PROPOSED IMPROVEMENTS

- **Consider raising 2nd Street bridge:** To raise the 2nd Street bridge over Storm Creek would allow for traffic flow out of town during flood events.
- **Improve Turning Radii:** There are six intersections with quadrants that have existing turning radii that do not meet current ODOT standards for semi-tractor trailers 50 foot in length, with an 8.5 foot trailer width, and a 70 foot articulating angle. Improvement cost is \$25,000 per quadrant (not including right of way cost). These intersections include:

Liberty and Pine Streets – northwest quadrant
 9th and Spruce Streets – southwest quadrant
 3rd and Lorain Streets – northeast & southeast quadrants
 3rd and Jefferson Streets – southwest quadrant
 2nd and Jefferson Streets – northeast quadrant
 2nd Street and Park Avenue – southeast quadrant
 2nd and Adams Street – southwest quadrant

Existing Signal Analyses



● Phase 1 Upgrade X Phase 2

RECOMMENDED SHORT TERM (0-5 years) PROJECTS:

- Improve ADA access at six intersections
- Replace signal poles and field equipment at six intersections (Phase 1)
- Replace Signal heads (LED) and associated hardware (signal cable, conduit, controller boxes) for six intersections
- Purchase signal optimization software (and training)
- Implement optimized timings
- Investigate increase parking in downtown
- Implement intersection count program every 3 yrs.
- Install central system signal control
- Asses Phase 2 of Signal System

- **Improve US 52/University area to 3rd Street flow:** This can be done by improving the northwest quadrant of the Liberty and Pine Street intersection and the southwest quadrant of the 9th and Spruce Street intersection at a cost of approximately \$50,000 (for both intersections not including right of way cost) as well as removing the northbound and southbound stop signs on Spruce Street.
- **Signals:** The inventory of existing signal equipment revealed that none of the sixteen intersections meet Americans with Disabilities Act (ADA) compliance. The problems include: only one timing plan; no multiple timing plans for AM, Midday, PM peak to improve emissions; no pushbutton actuation for pedestrians; no actuation for vehicles; no preemption and; there is timing loss over time.
- **ITS Application:** Install a new central signal system to control timing and traffic flow through the City in case of incidents on US 52 or the Ironton-Russell Bridge.

HISTORIC TRAFFIC DATA—2030 PROJECTIONS (12/08 Ohio DOT)

Intersection	1975 ADT	1994 & 1998 ADT	2008 ADT	% Growth 1975 to 2008/Yr.	% Growth 2005 to 2030	% Growth 2005 to 2030 per Yr.
Park Ave. North of 9th St.	13590	19734	15230	.4		
Park Ave. North of 3rd St.	8020	7139	3620	-1.7	21%	0.8%
2nd St. West of Park St.	4510	6905	6030	1.0	25%	1.0%
2nd St. East of Vernon St.	not available	7187	7040	-2	12%	0.4%
3rd St. West of Adams St.	4510	6162	4320	-1	35%	1.4%
Ironton-Russell Bridge	5000	11900	11560	4.0		