

MEDIA RELEASE
JEFFERSON COUNTY PUBLIC WORKS DEPARTMENT

Date: 05 / 01 / 2025

Notice period (weeks/days): 11 days

Council District: 1 (Brian Haskins) & 7 (Bob Tullock)

Project Identification:

Name: John McKeever at Byrnesville Road Intersection
Limits: Approx. 500 feet East and West of John McKeever
Project Number: N/A
Creek Crossing: N/A
ADT: See Traffic Studies
Project Length (Road): Approx. 1000 feet
Location (S/T/R or vicinity): North of Cedar Hill / West of House Springs

Funding Source:

Federal Funding or Local: 100% Local (Road Tax)
(80% Federal/20% Local) (100%)

Engineer:

Name (consultant/county): Jefferson County (In-House)
Engineer's Estimate: \$ N/A

Estimated Dates:

Start Date: May 5, 2025
Road Closure (full/partial): None
Finish Date: May 19, 2025

Contractor Data:

Name/City: N/A
Low Bidder (yes/no): N/A
Number of Bidders: N/A
Bid Amount: \$ N/A
#Working Days: N/A

Structure Data:

Existing Structure:

Type/Length/Width: N/A
Age of Structure: N/A
Sufficiency Rating: N/A
Load Posting: N/A

New Structure:

Type/Length/Width: N/A

Miscellaneous Information (Message Boards, shoulder width, detour roads, other improvements, etc.):

See attached traffic studies on traffic volume & sight distance for the John McKeever at Byrnesville Road intersection. The results of the sight distance traffic study recommended permanent improvement of a new white paint Stop Bar on John McKeever at Byrnesville Road, as well as a Stop At White Line plaque on the existing Stop Sign. This work has been completed. The results of the traffic volume study recommended temporary installation of two Stop Signs along Byrnesville Rd at John McKeever. Message boards will be places on all three legs of the intersection on May 5th indicating an All Stop condition beginning May 12th. On May 12th the two additional Stop Signs will be installed. The message boards will remain in place until May 19th for support. Flashing red beacons will be added to the two new Stop Signs. Stop Ahead signs will also be installed with flashing yellow beacons.

Chapter 300. Scope and Authority — Definitions

Article I. Scope and Authority

Section 300.100. Authority of The County Highway Administrator.

[Order of 5-2-2009 §101.090]

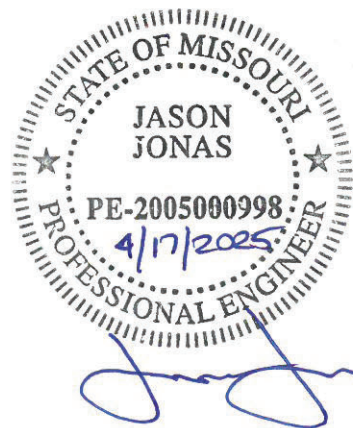
A. The County Highway Administrator's (hereinafter "Highway Administrator") authority as it pertains to traffic control shall include, but not be limited to, the following:

1. Install regulatory traffic control devices in the case of emergency or special conditions which the public peace, safety, convenience and expedition of traffic may demand.
2. Close any roadway, alleyway or driveway within Jefferson County and withdraw the same from public use temporarily and during such period as public work thereon or other public emergency or expediency shall make such acts necessary. In conjunction with this authority, the Highway Administrator shall place a sign at each end of the portion of such roadway, alleyway or driveway withdrawn from public use. This shall bear the legend "Road Closed".
3. When it has been determined by the Highway Administrator that any barrier, obstacle or plant material within the County right-of-way adjacent to the roadway pavement is hazardous, the Highway Administrator is authorized to remove said barrier or plant material from the right-of-way.
4. The Highway Administrator is authorized to mount and install lamps upon any part of any or all of the vehicles owned or operated by the Jefferson County Department of Public Works, Highway Division, which lamps, when lighted, display a flashing yellow or amber light visible in any and all directions from such vehicle and to use such lamps when such vehicle is being used in the performance of emergency services.
5. The Highway Administrator has the sole authority to petition the County Council with any recommended amendments to Sections and Schedules within the Traffic Code that are based on performed traffic studies or engineering determination.
[Ord. No. 18-0158, 2-28-2018]
6. The Highway Administrator has the sole authority to petition the County Council with any recommended additions to the County Road system of publicly maintained roads and streets within unincorporated Jefferson County, Missouri. Said petitions shall be evaluated on a performance-based selection process that is defined by the Highway Administrator. Any recommended additions to the existing system shall include a cost-benefit analysis and become subject to budgetary limitations. Added facilities to the County Road System must be included in Schedule III for traffic control enforcements.
[Ord. No. 18-0158, 2-28-2018]



John McKeever Road at Byrnesville Road

Sight Distance Study



April 2025
Public Works Traffic

General

In April of 2025, the Jefferson County Public Works Department was contacted by a Council District Representative with a safety concern regarding limited sight visibility on John McKeever Road at Byrnesville Road.

John McKeever Road runs north to south from Highway FF to Byrnesville Road and is 3.33 miles long. It has a 30-foot prescriptive easement and has a posted speed limit of 30 MPH.

Byrnesville Road runs east to west from State Road W to Highway NN and is 8.11 miles long. It has a 30-foot prescriptive easement and has a posted speed limit of 40 MPH.

Sight Distance

The existing Stop Sign on John McKeever Road is 22 feet from the edge of Byrnesville Road pavement.

- On Byrnesville Road traveling south you can see another road user on John McKeever Road from 185' away
- When stopped on John McKeever Road, you can see another road user on Byrnesville Road from 195' away.

The AASHTO Design Standards are as follows:

Table 3-1. Stopping Sight Distance on Level Roadways

U.S. Customary					Metric				
Design Speed (mph)	Brake Reaction Distance (ft)	Braking Distance on Level (ft)	Stopping Sight Distance		Design Speed (km/h)	Brake Reaction Distance (m)	Braking Distance on Level (m)	Stopping Sight Distance	
			Calculated (ft)	Design (ft)				Calculated (m)	Design (m)
15	55.1	21.6	76.7	80	20	13.9	4.6	18.5	20
20	73.5	38.4	111.9	115	30	20.9	10.3	31.2	35
25	91.9	60.0	151.9	155	40	27.8	18.4	46.2	50
30	110.3	86.4	196.7	200	50	34.8	28.7	63.5	65
35	128.6	117.6	246.2	250	60	41.7	41.3	83.0	85
40	147.0	153.6	300.6	305	70	48.7	56.2	104.9	105
45	165.4	194.4	359.8	360	80	55.6	73.4	129.0	130
50	183.8	240.0	423.8	425	90	62.6	92.9	155.5	160
55	202.1	290.3	492.4	495	100	69.5	114.7	184.2	185
60	220.5	345.5	566.0	570	110	76.5	138.8	215.3	220
65	238.9	405.5	644.4	645	120	83.4	165.2	248.6	250
70	257.3	470.3	727.6	730	130	90.4	193.8	284.2	285
75	275.6	539.9	815.5	820	140	97.3	224.8	322.1	325
80	294.0	614.3	908.3	910					
85	313.5	693.5	1007.0	1010					

MUTCD Regulatory & Warning Signs

- MUTCD recommends using a W2-2, Intersection Warning sign, to indicate the presence of an intersection and the possibility of turning or entering traffic. This sign is currently in place approximately 570' north of John McKeever Road on Byrnesville Road following MUTCD recommendation.
- The existing Regulatory R1-1 Stop Sign on John McKeever Road is 22 feet from the edge of Byrnesville Road pavement. Minimum recommendation is 14.5 feet from edge of pavement in accordance with the table shown below:

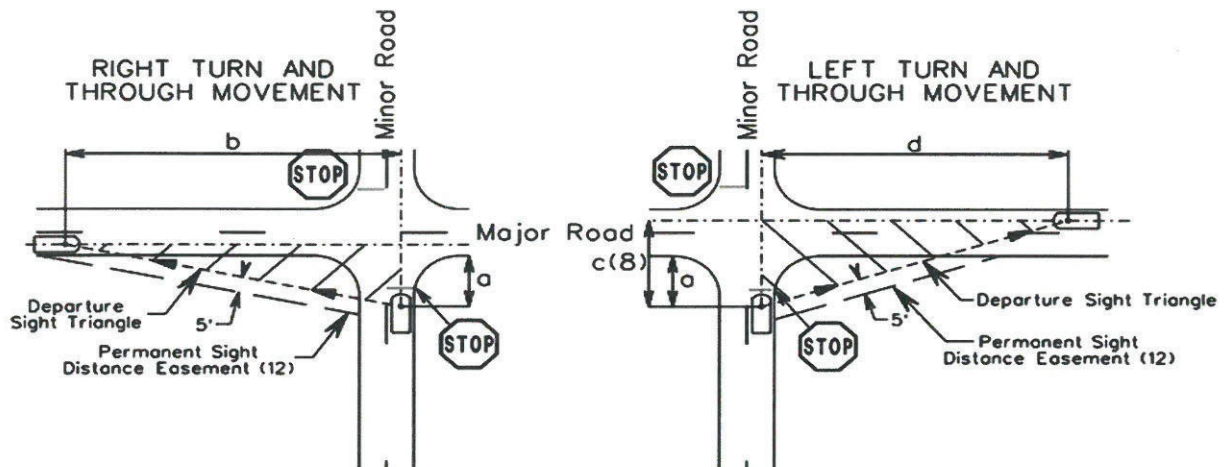


Figure 1 (SEE NOTES 1 & 12):
CASE B - INTERSECTIONS WITH STOP CONTROL ON THE MINOR ROAD
VEHICLES EXITING THE MINOR ROAD
CASE D - SIGNALIZED INTERSECTIONS
CASE E - INTERSECTIONS WITH ALL-WAY STOP CONTROL
CASE F - LEFT TURNS FROM THE MAJOR ROAD

GENERAL NOTES

SIGHT DISTANCE FOR VEHICLE EXITING MINOR ROAD ASSOCIATED WITH NEW DEVELOPMENT (SEE NOTES 5, 6 & 13)								
MAJOR ROAD DESIGN SPEED (M.P.H.) (7)	LENGTH OF DEPARTURE SIGHT TRIANGLE LEG (6)			CASE F	CROSSING NUMBER OF LANES ADJUSTMENT	SIGHT DISTANCE ADJUSTMENT FOR APPROACH GRADE (11)		
	a(8)	b	d	ISD(9)	W(10)	+4%	+5%	+6%
15	14.5'	145'	170'	125'	15'	15'	20'	25'
20	14.5'	195'	225'	165'	15'	20'	25'	35'
25	14.5'	240'	280'	205'	20'	30'	35'	40'
30	14.5'	290'	335'	245'	25'	35'	40'	50'
35	14.5'	335'	390'	285'	30'	40'	50'	60'
40	14.5'	385'	445'	325'	30'	45'	55'	70'
45	14.5'	430'	500'	365'	35'	50'	65'	80'
50	14.5'	480'	555'	405'	40'	60'	70'	85'
55	14.5'	530'	610'	445'	45'	65'	80'	95'

Conclusion

Jefferson County Public Works holds 30' of Right-of-Way on both John McKeever Road and Byrnesville Road. The Right-of-Way does NOT have visible vegetation within its limits. Any clearing beyond these limits is out of Jefferson County's jurisdiction.

If a stop bar was to be installed at 14.5' from edge of pavement, on Byrnesville Road, traveling south, you would be able to see another road user on John McKeever Road from 278' away. This would increase the sight distance by an additional 93'.

If a stop bar was to be installed on John McKeever Road at 14.5' from edge of pavement, when stopped on John McKeever Road, you would be able to see another road user on Byrnesville Road from 299' away. This would increase the sight distance by an additional 104'.

Due to existing stormwater infrastructure, the current placement of the existing Stop Sign on John McKeever Road can NOT be relocated. A supplemental plaque that reads "Stop At White Line" will be installed with the R1-1, Stop Sign. A stop bar will be installed at 14.5' from the edge of pavement on Byrnesville Road.



John McKeever Road at Byrnesville Road

Traffic Volume Study



May 1, 2025
Public Works Traffic

General

On April 10, 2025, the Jefferson County Public Works Department was notified of a landslide and the undermining of the roadway known as State Road W due to flooding in the area. This resulted in a full road closure on State Road W from Twin River Road to Boemler Road.

The majority of road users detour from Byrnesville Road at State Road W to John McKeever Road, to State Road FF back to State Road W. Additionally, various phone apps are directing motorists to use John McKeever and Byrnesville Roads as a way to get around this road closure.

This detour has raised safety concerns due to the increase in traffic volume at the intersection of Byrnesville Road and John McKeever Road.

The intersection of Byrnesville Road and John McKeever Road is a “T” type intersection where traffic on John McKeever Road is required to stop at Byrnesville Road. There is a painted Stop bar, as well as a “Stop at White Line” sign at the intersection.

Traffic Volume & Speed Data

John McKeever at Byrnesville Traffic Data Collected March 10, 2025, thru March 13, 2025

		John McKeever North of Byrnesville Road
Volume	Average Daily Traffic (vehicles/ day)	340 (NB) 348 (SB)
	AM Peak Volume (vehicles/ direction)	26 (NB) 24 (SB)
	AM Peak Hour	7:00 (NB) 7:15 (SB)
	PM Peak Volume (vehicles/ direction)	50 (NB) 34 (SB)
	PM Peak Hour	3:45 (NB) 4:30 (SB)
Speed	85 th Percentile Speed	42 MPH (NB) 40 MPH (SB)
	Posted Speed	30 MPH

		John McKeever North of Byrnesville Road
Volume	Average Daily Traffic (vehicles/ day)	1690 (NB) 1984 (SB)
	AM Peak Volume (vehicles/ direction)	81 (NB) 277 (SB)
	AM Peak Hour	6:15 (NB) 6:45 (SB)
	PM Peak Volume (vehicles/ direction)	249 (NB) 143 (SB)
	PM Peak Hour	4:00 (NB) 3:30 (SB)
Speed	85 th Percentile Speed	39 MPH (NB) 39 MPH (SB)
	Posted Speed	30 MPH

A review of the above traffic data disclosed that the total average daily traffic (ADT) in March 2025 was 688 vehicles per day; and the ADT in April, 2025 was 3,674 vehicles a day. This indicates that more than five times as many vehicles are travelling on John McKeever Road north of Byrnesville Road in April, than one month prior. It is our opinion that this increase in traffic is due solely to the closure of State Road W.

Conclusion

It is our belief that the severe increase in traffic at this intersection poses an immediate safety hazard to motorists who travel through this intersection.

Jefferson County is required by ordinance to install traffic control devices in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), as published by the Federal Highway Administration.

The MUTCD defines various warrants for the establishment of “All Way Stop” control at an intersection. However, in addition to these warrants, the MUTCD does allow for engineering judgement to be used when special circumstances may dictate the necessity for the installation of “All Way Stop” control at a particular intersection.

It is our belief that the increase in traffic volume at the intersection significantly increases the potential for crashes at this location.

As a result, “Three Way Stop” control will be immediately installed at the intersection of John McKeever and Byrnesville Roads. In addition, “Stop Ahead” signs will be installed on Byrnesville Road in advance of John McKeever Road to warn motorists of the change in traffic control at the intersection.

Once the Missouri Department of Transportation’s repair work on State Road W is complete, the Stop signs on Byrnesville Road at John McKeever Road will be removed.