



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: October 3, 2016

Re: Setting a Public Hearing for Waco Road and State Route B Intersection Improvements

Executive Summary

Setting a public hearing for November 7, 2016, for the construction of improvements to the intersection of Waco Road and State Route B in Columbia, Missouri, as shown on the attached location map. An Interested Parties (IP) meeting for the project was held September 8, 2016 and the construction preliminary cost estimate for the project is \$221,000.

Discussion

The proposed improvement is located at the intersection of Waco Road and State Route B on the northeast side of the City of Columbia. The intersection is approximately 1.8 miles northeast of Highway 63. It is located within the Columbia Area Metropolitan Planning Organization and the Mid-Missouri Regional Planning Commission boundaries. Both Waco Road and Route B are classified as Minor Arterials in both the Columbia Area Transportation Study Organization (CATSO) 2030 Major Thoroughfare Plan and City Major Roadway Plan.

This section of State Route B is primarily industrial with many manufacturing companies located along the corridor, and many large trucks that use the road. This state route is also the connection between the City of Hallsville and Columbia, thus being used by many commuters as well.

Kraft Foods is located on Waco Road east of the intersection and is undergoing a large expansion in order to increase production at the plant. As part of this expansion, Kraft Foods approached the City with a concern about their trucks being able to make a left turn onto State Route B from Waco Road. They are anticipating approximately 30 to 32 trucks per day will be accessing their plant, and requested that the City work with MoDOT to improve the intersection by installing a signal and a dedicated left turn lane. In addition, both 3M and EDI, located near the intersection, have expressed a willingness to modify existing driveway access locations from full access to right in/right out/left in when the signal is installed.

The necessity of intersection improvements at Waco Road and State Route B is prompted by the safety of commuters. Currently the four (4) lanes and left turn lane on State Route B provides through movement while the two (2) lanes of Waco Road must stop. From 2011 through 2015, there have been eight (8) crashes at this intersection, with seven (7) being injury crashes.

The intersection improvements include mast arm signals, raised islands, pedestrian crosswalk, and restricted turning movements for the driveways located closest to the



City of Columbia

701 East Broadway, Columbia, Missouri 65201

intersection. The improvement will be located within existing street right of way. Additional temporary easements may be necessary for construction of the project. Preliminary plans are included with this application. No significant environmental impacts are anticipated with this project.

Construction concept cost estimates for this project is \$221,000, and construction is currently scheduled to begin in spring, 2017. An IP meeting was held September 8, 2016; three (3) people signed in and no written comments were received. A property owner contact log is attached.

The City of Columbia submitted a traffic impact study of the intersection to MoDOT, which has conditionally been approved. Traffic crash information, traffic counts, the Kraft Foods request letter, the traffic impact study, and MoDOT's response letter are attached.

Fiscal Impact

Short-Term Impact: The construction concept cost estimate for this project is \$221,000 and funding shall be made from 0.25% Capital Improvement Sales Tax.

Long-Term Impact: The cost of maintenance for this project is estimated at \$3,000 per year.

Vision & Strategic Plan Impact

Vision Impacts:

Primary Impact: Transportation, Secondary Impact: Secondary, Tertiary Impact: Environment

Strategic Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Secondary, Tertiary Impact: Tertiary

Comprehensive Plan Impacts:

Primary Impact: Mobility, Connectivity, and Accessibility, Secondary Impact: Secondary, Tertiary Impact: Tertiary

Legislative History

Date	Action
9/8/2016	Interested Parties meeting

Suggested Council Action

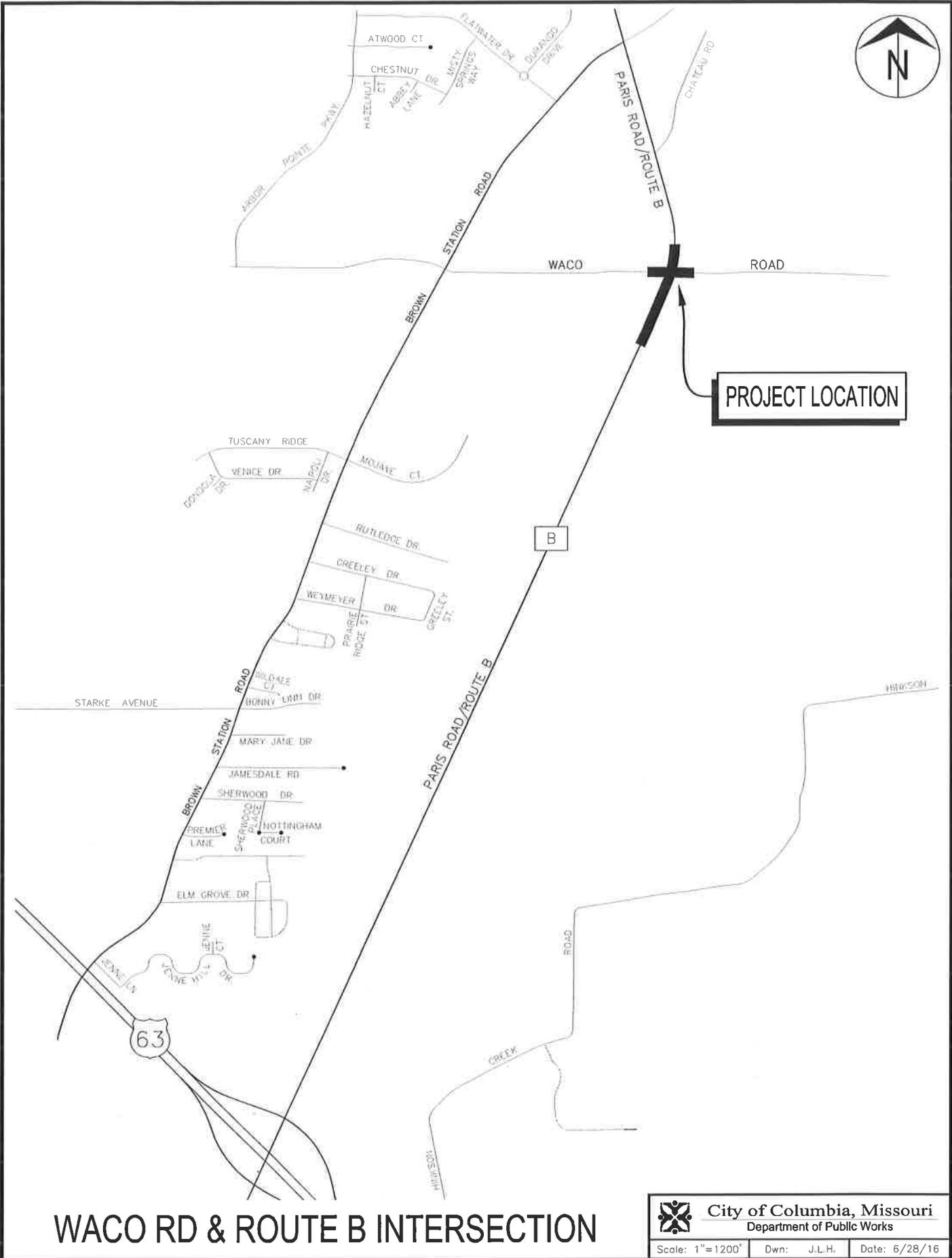
Staff recommends adoption of the resolution to set the public hearing for November 7, 2016.

CITY OF COLUMBIA, MO PUBLIC WORKS - ENGINEERING DIVISION
PROPERTY OWNER CONTACT LOG

Project: Waco Rd & Route B Intersection

By: Hudson/Hussain

PARCEL NO./ADDRESS	OWNER NAME	OWNER ADDRESS	NOTIFIED OF 8/11/16 I.P. MEETING	ATTENDED 9/08/16 I.P. MEETING	NOTIFIED OF XXXXXX P.H. BY CERT. MAIL	SPOKE WITH ON PHONE OR LEFT MESSAGE	NOTES
Parcel 1250300100010001 PARIS RD	MINNESOTA MINING & MANUFACTURING COMPANY/3M TAX DEPT	PO BOX 33441 SAINT PAUL MN, 55144	X	X			
Parcel 1250300000140001 PARIS RD	THARP FAMILY CO LP	2401 BLUFF CREEK DR COLUMBIA MO, 65201	X				Per a letter received and located on the K drive, (K:\PROJECTS\32 street\Waco Rd-Rt B Intersection Improv C00650\Letter from 3M and EDI.pdf) owners are aware of the project and approve with the design.
Parcel 1250300050010001 WACO RD	OSCAR MAYER FOODS CORP/C/O KRAFT HEINZ COMPANY	801 WAJKEGAN RD GLENNVIEW IL, 60025	X				Per a letter received and located on the K drive, (K:\PROJECTS\32 street\Waco Rd-Rt B Intersection Improv C00650\Letter from 3M and EDI.pdf) owners are aware of the project and approve with the design.
Parcel	Columbia Public Schools/C/O Blake Tekotte	0					Via email 9-9-16, Blake wanted to know if the intersection will be closed during construction, Allison let him know we are in the preliminary design stage but at this point planning to keep the intersection open.

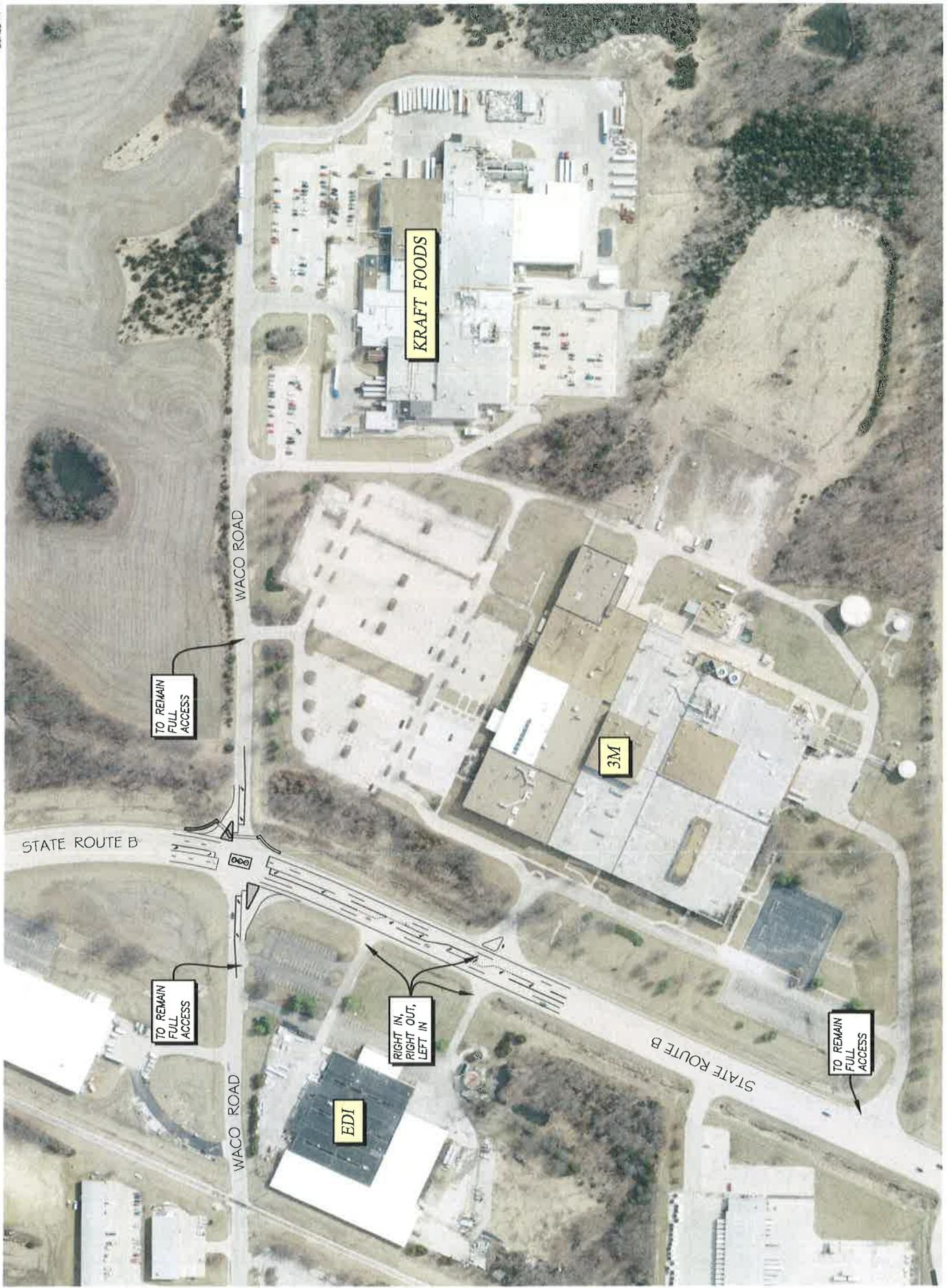


WACO RD & ROUTE B INTERSECTION

 City of Columbia, Missouri Department of Public Works		
Scale: 1"=1200'	Dwn: J.L.H.	Date: 6/28/16



SCALE = 1" = 300'

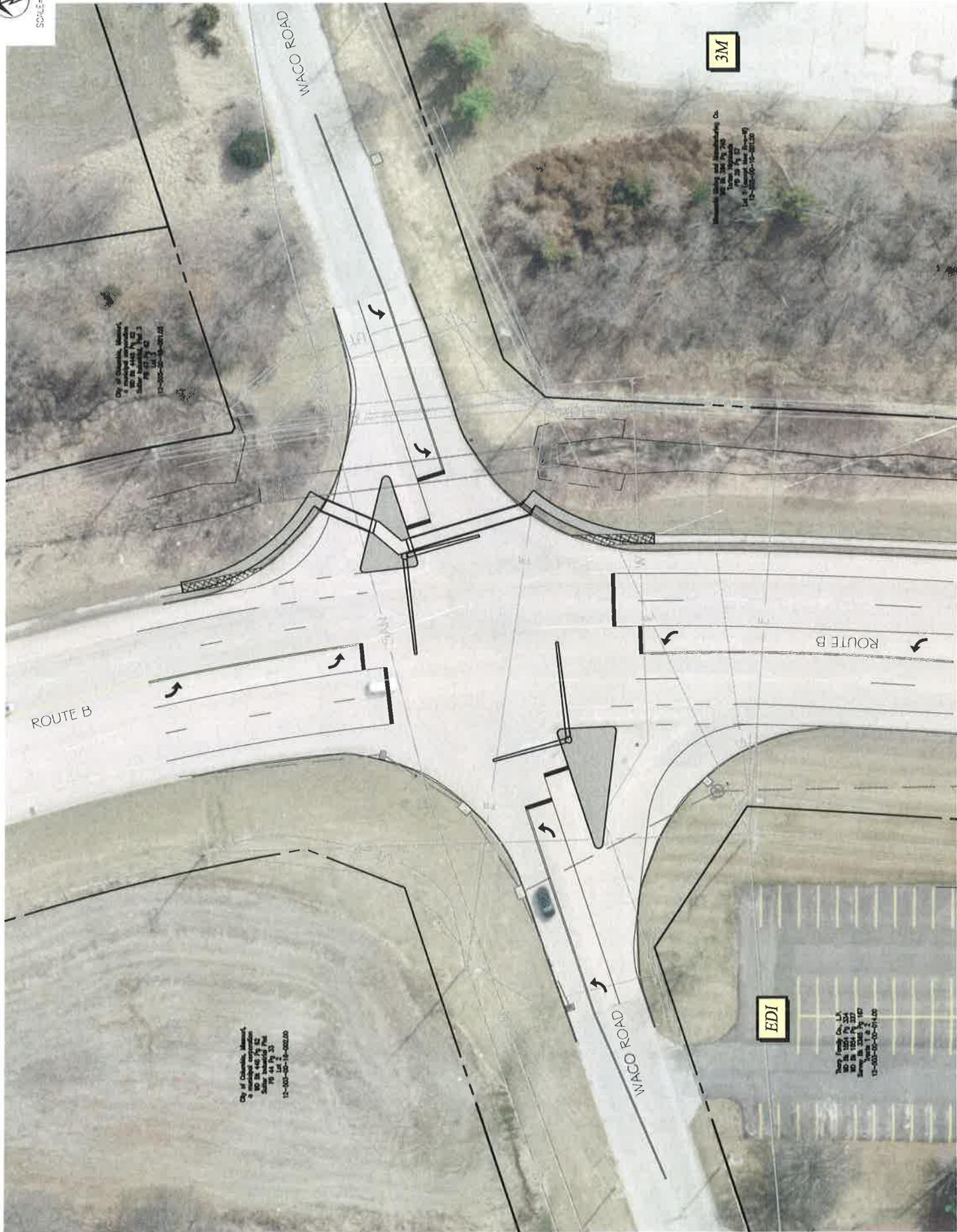


OVERALL PLAN

2013 Photograph Source: Street View Imagery



SCALE = 1" = 60'



City of Columbia, Missouri
100 N. 44th St., 2nd Fl.
Columbia, Missouri 65201
Tel: 314-487-1000
Fax: 314-487-1001

City of Columbia, Missouri
100 N. 44th St., 2nd Fl.
Columbia, Missouri 65201
Tel: 314-487-1000
Fax: 314-487-1001

3M

Technical Services and Maintenance
100 N. 44th St., 2nd Fl.
Columbia, Missouri 65201
Tel: 314-487-1000
Fax: 314-487-1001

EDI

City of Columbia, Missouri
100 N. 44th St., 2nd Fl.
Columbia, Missouri 65201
Tel: 314-487-1000
Fax: 314-487-1001

IMPROVEMENT LAYOUT PLAN

Route B and Waco

Crash Severity Summary

Crash Severity	2011	2012	2013	2014	2015	Total
Fatalities	0	0	0	0	0	0
Disabling Injury	0	1	0	0	0	1
Minor Injury	0	2	1	2	1	6
Property Damage Only	0	0	1	0	0	1
Total Crashes	0	3	2	2	1	8

Crash Type Summary

Type of Crash	2011	2012	2013	2014	2015	Total
Rear End	0	0	0	1	0	1
Out of Control	0	1	1	0	1	3
Right Angle	0	1	1	0	0	2
Head On	0	1	0	1	0	2
Total Crashes	0	3	2	2	1	8

Central District Traffic

1511 MO Blvd.
Jefferson City, MO, 65102

Boone
RtBandWacoRoad
Logpoint
John Kuhlman

File Name : BooneRTBandWaco09172015_258478_09-17-2015
Site Code :
Start Date : 9/17/2015
Page No : 1

Groups Printed- Lights - Mediums - Articulated Trucks - Bicycles on Road - Pedestrians

Start Time	Route B <i>SB</i>					Waco Rd <i>WB</i>					Route B <i>NB</i>					Waco Rd WB <i>EB</i>					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	8	241	1	0	250	8	0	0	0	8	11	53	26	0	90	1	1	1	0	3	351
06:45 AM	9	220	5	0	234	0	0	2	0	2	12	113	22	0	147	1	2	3	0	6	389
Total	17	461	6	0	484	8	0	2	0	10	23	166	48	0	237	2	3	4	0	9	740
07:00 AM	11	276	2	0	289	1	0	0	0	1	13	85	29	0	127	0	0	11	0	11	428
07:15 AM	8	321	4	0	333	1	0	2	0	3	34	97	33	0	164	0	1	8	0	9	509
07:30 AM	7	360	4	0	371	5	1	2	0	8	25	95	52	0	172	0	0	10	0	10	561
07:45 AM	1	343	3	0	347	4	2	0	0	6	29	86	6	0	121	0	0	11	0	11	485
Total	27	1300	13	0	1340	11	3	4	0	18	101	363	120	0	584	0	1	40	0	41	1983
08:00 AM	2	232	3	0	237	38	2	11	0	51	28	68	7	0	103	0	1	27	0	28	419
08:15 AM	0	199	0	0	199	15	1	6	0	22	20	71	3	0	94	0	0	38	0	38	353
08:30 AM	0	181	0	0	181	1	2	1	0	4	12	82	4	0	98	1	0	8	0	9	292
08:45 AM	1	143	2	0	146	4	0	0	0	4	11	67	1	0	79	1	0	2	0	3	232
Total	3	755	5	0	763	58	5	18	0	81	71	288	15	0	374	2	1	75	0	78	1296
09:00 AM	0	122	1	0	123	2	0	0	0	2	6	66	5	0	77	0	0	14	0	14	216
09:15 AM	1	124	2	0	127	6	1	0	0	7	6	97	3	0	106	1	0	5	0	6	246
09:30 AM	0	131	1	0	132	4	1	0	0	5	8	76	4	0	88	0	0	9	0	9	234
09:45 AM	0	123	4	0	127	1	1	0	0	2	4	83	4	0	91	0	0	5	0	5	225
Total	1	500	8	0	509	13	3	0	0	16	24	322	16	0	362	1	0	33	0	34	921
10:00 AM	1	106	2	0	109	5	0	0	0	5	7	84	2	0	93	0	0	9	0	9	216
10:15 AM	1	118	3	0	122	3	0	0	0	3	7	69	5	0	81	1	1	6	0	8	214
10:30 AM	0	123	2	0	125	1	1	1	0	3	11	101	3	0	115	2	0	8	0	10	253
10:45 AM	0	111	0	0	111	3	0	1	0	4	7	83	3	0	93	1	0	9	0	10	218
Total	2	458	7	0	467	12	1	2	0	15	32	337	13	0	382	4	1	32	0	37	901
11:00 AM	1	108	2	0	111	11	0	1	0	12	11	104	2	0	117	0	0	10	0	10	250
11:15 AM	1	98	0	0	99	5	1	1	0	7	13	97	1	0	111	1	0	18	0	19	236
11:30 AM	0	99	1	0	100	11	2	3	0	16	6	75	4	0	85	1	0	9	0	10	211
11:45 AM	0	86	2	0	88	8	0	0	0	8	7	99	6	0	112	0	1	11	0	12	220
Total	2	391	5	0	398	35	3	5	0	43	37	375	13	0	425	2	1	48	0	51	917
12:00 PM	0	99	3	0	102	5	0	2	0	7	7	97	3	0	107	1	0	6	0	7	223
12:15 PM	2	85	2	0	89	4	0	2	0	6	11	129	15	0	155	1	2	16	0	19	269
12:30 PM	2	110	2	0	114	4	0	0	0	4	11	104	8	0	123	0	1	9	0	10	251
12:45 PM	0	105	3	0	108	3	0	0	0	3	11	95	8	0	114	0	2	6	0	8	233
Total	4	399	10	0	413	16	0	4	0	20	40	425	34	0	499	2	5	37	0	44	976
01:00 PM	1	90	1	0	92	2	0	1	0	3	8	92	4	0	104	0	0	9	0	9	208
01:15 PM	0	92	2	0	94	2	1	0	0	3	6	109	2	0	117	0	1	6	0	7	221
01:30 PM	0	110	0	0	110	3	0	0	0	3	17	118	4	0	139	0	1	8	0	9	261
01:45 PM	0	90	0	0	90	4	0	0	0	4	5	119	6	0	130	0	1	12	0	13	237
Total	1	382	3	0	386	11	1	1	0	13	36	438	16	0	490	0	3	35	0	38	927
02:00 PM	1	100	0	0	101	5	1	0	0	6	8	113	1	0	122	0	0	9	0	9	238
02:15 PM	0	89	2	0	91	3	0	0	0	3	7	164	3	0	174	0	0	4	0	4	272
02:30 PM	1	105	2	0	108	8	0	0	0	8	15	118	2	0	135	2	1	7	0	10	261
02:45 PM	1	70	2	0	73	13	1	1	0	15	20	131	4	0	155	0	0	8	0	8	251
Total	3	364	6	0	373	29	2	1	0	32	50	526	10	0	586	2	1	28	0	31	1022



Kraft Foods

May 5, 2015

Mr. Bernie Andrews
Executive Vice President
Regional Economic Development Inc.
500 East Walnut, Suite 102
Columbia, MO 65201

RE: Kraft Foods Group, Inc. Chapter 100 Application

Dear Mr. Andrews:

On behalf of Kraft Foods Group, Inc. ("Kraft") attached please find an application for support under the Chapter 100 program. As outlined in the application, Kraft is contemplating the investment of \$100 million and retention of at least 350 full-time jobs to modernize and increase capacity at our Columbia, Missouri facility located at 4600 Waco Road.

As discussed previously in our meetings and communications leading up to this application, local support is an important consideration when making decisions related to investments in our production facilities. Towards that end, we are requesting Chapter 100 real and personal property tax abatement with terms of a 75% abatement for a period of 10 years. In addition, our leadership has requested that we memorialize the verbal commitments made during our onsite meetings through a Memorandum of Understanding. Our understanding is that additional project support would include:

- Installation of traffic signals and creation of a new turn lane on Waco Road through collaboration with Missouri Department of Transportation
- Smoothing of the grade at the Waco Intersection, which would benefit Kraft, as well as other companies in the area
- Expedited process for project permits and any potential reduction of fees, where applicable
- Establishment of dual-feed electric service at the Waco facility

If you have any questions, or need clarification of any of the above issues, please contact myself at (847) 646-7536 and mmorgan@kraftfoods.com or Patrick Hanlon at (314) 342-3179 and phanlon@deloitte.com.

Very truly yours,

Michael Morgan
Director, Supply Chain Strategy

Rte. B & Waco Rd Signal Warrant Study

Warrant 1: Eight Hour Vehicular Volume- As can be seen by the Traffic Signal Warrant Worksheet eight hours of the day do not meet the required values found in Table 4C-1 of the Manual on Uniform Traffic Control Devices (MUTCD).

Determination: **Not warranted**

Warrant 2: Four Hour Vehicular Volume- As can be seen by the Traffic Signal Warrant Worksheet four hours of the day do not meet the required values found in the Manual on Uniform Traffic Control Devices (MUTCD). The data has been graphed in Figure 4C-1.

Determination: **Not warranted**

Warrant 3: Peak Hour - As can be seen by the Traffic Signal Warrant Worksheet four hours of the day do not meet the required values found in the Manual on Uniform Traffic Control Devices (MUTCD). The data has been graphed in Figure 4C-3.

Determination: **Not warranted**

Warrant 3: Pedestrian Volume - As can be seen by Figure 4C-5 and 4C-7 the warrant for pedestrian volume was not met. There were no pedestrians at this intersection during the time of the vehicle and pedestrian count.

Determination: **Not warranted**

Warrant 5: School Crossing- Route B and Waco Road is not used as school crossing and there did not appear to be more gaps in the traffic stream than minutes when school children were using the crosswalk.

Determination: **Not warranted**

Warrant 6: Coordinated Signal System- Adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive option. The only other signal in the area is an existing traffic signal at Route B and Brown Station Road. That intersection is about 0.43 miles away Route B and Waco Road. At a 55 mph speed limit on this roadway there would only be about 28 seconds between the signals. This spacing isn't ideal, but the two signals could be coordinated.

Determination: **Not warranted**

Warrant 7: Crash Experience- There vehicle accident history from 2010-2015 can be seen in the table below:

Incident #	Date	Incident time	Nature	Address	Disposition Code Description
2015069749	4/19/2015	9:47:40	29D2P-VEH COLLISION ROLLOVER	ROUTE B-CO/WACO RD-CO	
2013045692	3/11/2013	8:16:57	A-ACCIDENT	WACO RD-CO/ROUTE B-CO	NO REPORT
2013247354	12/27/2013	7:02:59	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012146206	7/30/2012	20:26:09	29D2L-CYCLIST ACCIDENT	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012193163	10/8/2012	6:54:03	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	
2012146206	7/30/2012	20:26:09	29D2L-CYCLIST ACCIDENT	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012193163	10/8/2012	6:54:03	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	
2010013521	1/21/2010	12:38:13	A-ACCIDENT	ROUTE B-CO/WACO RD-CO	NO REPORT
2010082710	4/26/2010	8:53:17	A-ACCIDENT	ROUTE B-CO/WACO RD-CO	NO REPORT
2010174610	9/1/2010	16:42:41	A-ACCIDENT	WACO RD-CO/ROUTE B-CO	
2010193442	9/27/2010	11:58:32	29B4-ACCIDENT UNK INJURY	WACO RD-CO/ROUTE B-CO	ACCIDENT INVESTIGATION

In 2015 there has been only one crash. No one calendar year had any more than 4 crashes. The crash history does not warrant a signal.

Determination: Not warranted

Warrant 8: Roadway Network- The Route B and Waco Road intersection currently has 6 hours per day where there are more than 1,000 vehicles entering the intersection per hour. Route B and Waco Road have both been identified as minor arterials in the CATSO Major Roadway Plan.

Determination: Warranted

Warrant 9: Intersection Near a Grade Crossing- There is not a rail crossing at this intersection, although the railroad does cross Route B about 1,200 feet to the north of the intersection.

Determination: Not warranted

Summary: Route B and Waco Road are both found to be minor arterials on the CATSO Major Roadway Plan. Using Warrant 8 found in the MUTCD a signal may be warranted based on the volume of the roadway. These roadways are an important piece in the major roadway network of Columbia. A signal is warranted at this location by using Warrant 8.

Missouri Department of Transportation

1511 Missouri Blvd.
P.O. Box 718
Jefferson City, Missouri 65102
573.751.3322
Fax: 573.522.1059
1.888.ASK MODOT (275.6636)

May 10, 2016

Mr. David Nichols, P.E.
Public Works Director
City of Columbia
701 E. Broadway, P.O. Box 6015
Columbia, MO 65205-6015

Dear Mr. Nichols:

We have reviewed your request and are willing to conceptually approve the installation of a traffic signal at the intersection of State Route B.

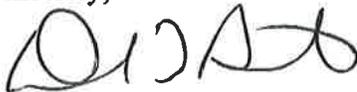
Final approval will be given with the issuing a permit to preform work on right of way. Before a permit is issued, the following will need to occur:

- Design plans for the Traffic Signal need to be submitted and approved.
- An agreement executed between the City and MoDOT, which includes the City funding the installation and ongoing electrical cost of the signal and MoDOT owning and maintaining the signal once installed.
- Movements at current and future access points along State Route B that can be better served by the signal will need to be restricted.

I believe partnering together to signalize this intersection will allow for increased economic development while improving the roadway safety in the area.

If you have any questions feel free to Trent Brooks, Central District Traffic Engineer, at 573-751-7692 or trent.brooks@modot.mo.gov.

Sincerely,



David T. Silvester, P.E.
District Engineer



A RESOLUTION

setting a public hearing; declaring the necessity for proposed construction of improvements to the intersection of Waco Road and State Route B to include the installation of mast arm traffic signals and the modification of existing driveway access locations, and construction of raised islands and a pedestrian crosswalk; stating the nature of and the estimate of the cost of the proposed improvement; providing source of funds for payment for the proposed improvement; and providing for compliance with the prevailing wage law.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. A public hearing in respect to the proposed public improvements set forth herein will be held in the Council Chamber of the City Hall Building, 701 E. Broadway, Columbia, Missouri, at 7:00 p.m. on November 7, 2016. The City Clerk shall cause notice of this hearing to be published in a newspaper published in the City.

SECTION 2. The City Council deems the proposed construction of improvements to the intersection of Waco Road and State Route B to include the installation of mast arm traffic signals and the modification of existing driveway access locations, and construction of raised islands and a pedestrian crosswalk, necessary to the welfare and improvement of the City.

SECTION 3. The nature and scope of the proposed improvement shall consist of furnishing all labor, materials, transportation, insurance and all other items, accessories and incidentals thereto necessary for the complete construction of the improvements.

SECTION 4. The estimated cost of this proposed improvement is \$221,000.00.

SECTION 5. Payment for this proposed improvement shall be made from capitol improvement sales tax funds and such other funds as may be lawfully appropriated.

SECTION 6. Any work done in connection with the construction of the proposed improvement specified above shall be in compliance with the provisions of the prevailing wage laws of the State of Missouri.

ADOPTED this _____ day of _____, 2016.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor