

CITY OF WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

INFRASTRUCTURE COMMITTEE

**Thursday, January 4, 2018
7:00 P.M. – Committee Room A**

AGENDA

1. Call to Order, Roll Call, and Establishment of a Quorum
2. Approval of Minutes
 - A. Infrastructure Committee of December 7, 2017
3. Public Participation / Presentations
4. Items for Consent
 - A. Resolution No. 18-R-0001 – Contract Award – 2018 Forestry Maintenance Program
5. Items for Discussion
6. Unfinished Business
 - A. 2018 Brush Collection Program
7. New Business
8. Reports from Staff
 - A. In House Traffic Study for Intersection at Wilson and Joliet Streets
9. Adjournment

CITY OF WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

Draft

MINUTES

INFRASTRUCTURE COMMITTEE

December 7, 2017 7:00 P.M.

1. Call to Order, Roll Call, and Establishment of a Quorum. Chairman Beifuss called the meeting to order at 7:00 P.M. Roll call found Aldermen James Beifuss, Heather Brown, Sandra Dimas, George Garcia, Alton Hallett, and Noreen Liginio-Kubinski present.

Staff present included Director of Public Works Robert Flatter and Executive Secretary Ashley Cunningham. Also present was Joseph Kramer of Kramer Tree Specialists, Inc.

2. Approval of Minutes

A. Infrastructure Committee Minutes of November 2, 2017. Alderman Hallett made a motion, seconded by Alderman Brown to approve the Meeting Minutes of November 2, 2017.

Voting Yea: Aldermen Beifuss, Brown, Dimas, Garcia, Hallett, and Liginio-Kubinski.
Voting Nay: 0.

3. Public Participation / Presentations. Mr. Kramer expressed his interest in continuing to provide the City with brush collection services for 2018. Mr. Kramer indicated that Kramer Tree Specialists, Inc. has performed brush collection services for the City for 19 of the last 23 years and the City has been satisfied with Kramer's service for all of these years. He would like to continue working with the City to provide that service. Alderman Beifuss indicated that discussion and questions related to this would be addressed later in the meeting under Item 5.A. Items for Discussion – 2018 Brush Collection Program.

4. Items for Consent. Alderman Beifuss requested discussion on Consent Items C, D, E, and G. **Alderman Dimas made a motion, seconded by Alderman Brown to approve:**

- A. Resolution No. 17-R-0075 – Contract Award - Procurement of Coarse and Fine Aggregate Material Delivered For FY2018**
- B. Resolution No. 17-R-0076 - Acceptance of Public Improvements and Release of Development Security – Wheaton Academy Science Wing Addition Project, 900 Prince Crossing Road**
- F. Resolution No. 17-R-0080 - Acceptance of Public Improvements and Release of Development Security – Shell Gas Station, 184 W. North Avenue**
- H. Resolution Christensen Company - Contract for Professional Services Related to the Installation of a Pump and Motor Assembly at the City's Well Station No. 12 – Change Order #1 and Final**

Voting Yea: Aldermen Beifuss, Brown, Dimas, Garcia, Hallett, and Ligino-Kubinski.
Voting Nay: 0.

5. Items for Discussion. Items for discussion include Consent Items 4.C., 4.D., 4.E., and 4.G.

4.C. Resolution No. 17-R-0077 - Acceptance of Public Improvements and Release of Development Security – DS Container, 2500 Enterprise Circle. Mr. Flatter explained that DS Container made public improvements that substantially have been complete since April 2017. Developers are required to post a development security when they first begin development, which is to guarantee the completion of certain required public infrastructure improvements. Typically the City then requires a two-year maintenance bond to guarantee maintenance if the infrastructure improvements were to fail in that two year period. Generally, if there are any issues with the watermain system, they reveal themselves relatively quickly; very seldom does the City have issues with fire hydrants or fire hydrant leads within the two year maintenance period. For the DS Container development, the City will only be responsible to maintain two additional on-site fire hydrants, so the developer has requested the City accept the public improvements, waive the maintenance security bond requirement, and release their original development security; staff feels comfortable recommending this. **Alderman Ligino-Kubinski made a motion, seconded by Alderman Garcia to approve.**

Voting Yea: Aldermen Beifuss, Brown, Dimas, Garcia, Hallett, and Ligino-Kubinski.
Voting Nay: 0.

4.D. Resolution No. 17-R-0078 – Contract Award – Alaniz Landscape Group, Inc. for the 2018 Right-of-Way Maintenance Program. Mr. Flatter detailed that Alaniz Landscape Group, Inc. has been the low bidder and contract holder for right-of-way maintenance services each year since 2012 and has performed adequately. Mr. Flatter provided details on the number of properties maintained by Alaniz since 2012 and the annual cost for each. Alaniz submitted a letter to the City expressing their desire to provide services in 2018 and indicated a willingness to hold their unit pricing from 2017 into 2018. Typically the City only receives about three bids annually; last year there were only two bids received. Staff believes the 2017 pricing is very good and recommends waiving competitive bidding since only one or two additional bids would be anticipated for 2018, and Alaniz has been the lowest responsible bidder since 2012. Alderman Beifuss expressed his concern with waiving competitive bidding and believes it is the Committee's responsibility to go to bid with a project of this type and cost to try to get the best price for the City. Alderman Dimas stated that she disagrees and feels that anticipating receipt of a bid that would be lower than last year's pricing is very unlikely; she would lean towards approving the Resolution. Alderman Hallett expressed his support of the Resolution and noted that the pricing increases over the last several years appear largely due to the addition of supplemental locations. Alderman Garcia inquired if there was knowledge of any new contractors in the area that might be interested if the City went to bid. Mr. Flatter stated that staff is prepared to go to bid if that is the direction given by the Committee, but there has been no indication of new contractors that would be interested. Often the City receives emails or requests for contractors to be added to a list of prospective bidders, but that has not occurred. Staff mails

invitations to bid to roughly 50 contractors and still only receives a few bids after that. Alderman Beifuss noted that the cost to go to bid is minimal, and he believes it is appropriate to do so. Alderman Dimas reiterated that holding the pricing from 2017 is a good price unlikely to be beaten if the program went to bid. She also noted that the contract is only for one year; it could be competitively bid for 2019. **Alderman Dimas made a motion, seconded by Alderman Brown to approve.**

Voting Yea: Aldermen Brown, Dimas, Hallett, and Ligino-Kubinski. Voting Nay: Aldermen Beifuss and Garcia.

4.E. Resolution No. 17-R-0079 - Acceptance of Public Improvements and Release of Development Security – Simpson Strong-Tie, 2505 Enterprise Circle. Mr. Flatter explained that this was a similar situation to that addressed under Item 4.C., except that Simpson Strong-Tie only added one additional fire hydrant, and the project has substantially been complete since December 2016. The City feels comfortable recommending acceptance of the watermain improvements, waiving the maintenance security bond requirement, and authorizing a reduction/release of any development securities posted by the developer. **Alderman Garcia made a motion, seconded by Alderman Dimas to approve.**

Voting Yea: Aldermen Beifuss, Brown, Dimas, Garcia, Hallett, and Ligino-Kubinski. Voting Nay: 0.

4.G. Patnick Construction – 2017 Grove Avenue Water Main Replacement Project – Change Order #1 and Final. Mr. Flatter explained that the project is complete, but due largely to a Scrivener's error in the original bid quantity, Change Order #1 and final is being requested; the quantity for sod restoration was off by 1,000 square yards in the original bid quantity. Based on unit prices that the contractor bid, this resulted in a \$17,690.75 addition to the contract. Staff did ask Patnick if they would negotiate the additional cost given that it was a Scrivener's error and they still received the additional quantity, but they were unwilling to do so. Alderman Dimas asked if the contract total still came in under the projected cost, and Mr. Flatter confirmed that it came in substantially lower than the original projected cost. **Alderman Hallett made a motion, seconded by Alderman Brown to approve.**

Voting Yea: Aldermen Beifuss, Brown, Dimas, Garcia, Hallett, and Ligino-Kubinski. Voting Nay: 0.

5.A. 2018 Brush Collection Program. Mr. Flatter stated that he believed Kramer Tree Specialists, Inc. had done the Brush Collection Program for 17 years, but in speaking with Mr. Kramer now believed it to be 19 of the past 23 years. Either way, Mr. Flatter noted that 17-19 years is a pretty impressive number of years to be providing services for a Citywide Brush Collection Program. During that time, Kramer has also collected debris that is above and beyond what the Brush Collection Program is intended to include; if it was in the parkway, Kramer would collect it. Kramer has demonstrated their willingness to go the extra mile, and the City does not receive complaints like they have in previous years with other contractors. Prior to 2009, contracts were awarded as a result of either a public competitive bidding process, or by extending existing contracts if the prior year's pricing was held and satisfactory performance was

observed during the previous contract year(s). After working with the City for several years, in 2015 the Infrastructure Committee instructed staff to offer Kramer a three-year contract for an amount not to exceed \$75,000.00 per year, and to go to bid if it was declined; Kramer declined the offer. Arborworks, LLC was awarded a three-year contract as the lowest bidder thereafter. In 2015, Arborworks struggled to complete the brush collections within the five day required period and refused to collect many of the brush piles for various reasons, including quantity or size of brush piles, size of logs, orientation of logs, foreign material mixed in with brush, foreign material resting near brush, etc. In 2016, Arborworks attempted to cancel, or get out of, their contract, which the City refused. To ensure that all appropriate brush piles were collected, City staff members were assigned to follow and work with Arborworks' crews during the 2016 season. Then in 2017, Arborworks hired Kramer Tree Specialists, Inc. as a sub-contractor to complete the City's monthly brush collection services. As a result, staff experienced no issues with the 2017 program. Alderman Dimas expressed her willingness to at least listen to what Kramer Tree Specialists, Inc. would offer in terms of pricing given the satisfactory work provided in years past. Alderman Brown indicated she would rather go out to bid in hopes of receiving bids within the allotted budget and to see what kind of contractors would be interested. Alderman Garcia said he was in favor of going out to bid to remain consistent. Mr. Flatter commented that while possible to receive a lower bid for this Program, in his experience problems are likely to arise because other contractors do not have the experience and equipment to get the brush collected in the time allotted. Alderman Dimas asked for an estimate of the cost in 2016 to send City staff out with each Arborworks crew to make sure the brush was collected properly. Mr. Flatter roughly estimated that an additional \$21,000.00 was incurred to monitor the contractor that year. Alderman Dimas noted that that additional amount negated the savings of using the lower bidder and even cost more than if the City had just used Kramer Tree Specialists, Inc. in the first place. Alderman Hallett also noted that this required taking City staff away from other essential duties. Alderman Brown stated she would be agreeable to discussions with Kramer Tree Specialists, Inc. Following discussion, Alderman Beifuss confirmed that the Committee would be looking into the possibility of a multi-year contract, and they would like staff to have discussions with Kramer regarding pricing before deciding whether to go to bid.

6. **Unfinished Business.** None.

7. **New Business.** None.

8. **Reports from Staff.** None.

9. **Adjournment.** At 8:04 P.M., Alderman Dimas made a motion to adjourn, seconded by Alderman Hallett. Motion was unanimously approved by voice vote.

Respectfully submitted,

Ashley Cunningham
Executive Secretary of Public Works

CITY OF WEST CHICAGO

INFRASTRUCTURE COMMITTEE AGENDA ITEM SUMMARY

ITEM TITLE:

Resolution No. 18-R-0001 - Contract Award - 2018 Forestry Maintenance Program

AGENDA ITEM NUMBER:4.A.**COMMITTEE AGENDA DATE:** January 4, 2018**COUNCIL AGENDA DATE:** January 15, 2018**STAFF REVIEW:** Timothy Wilcox, Assistant Director of Public Works**SIGNATURE****APPROVED BY CITY ADMINISTRATOR:** Michael L. Guttman**SIGNATURE****ITEM SUMMARY:**

The Forestry Maintenance Program covers contractual trimming and removal of parkway trees. The program is funded to enable completion of a five-year trimming cycle for the whole town, which is the recommended procedure by Arborists. This will be the third year of the fourth five-year trimming cycle.

The request for bids was advertised in the Daily Herald on December 5, 2017. There were eight plan holders and bids were opened on December 19, 2017. The City received four bids with Steve Piper & Sons of Naperville, Illinois submitting the lowest responsible bid proposal of \$67,400.92 (see attached bid tab sheet for additional clarification). The second lowest bidder was Ciosek Tree Service, Inc. of Lombard, Illinois, with a bid of \$67,761.36.

References from other Illinois municipalities were called and all had positive responses for performance and services completed by Steve Piper & Sons, Inc.; all indicated that they would use them again. West Chicago has also used Steve Piper & Sons for the past five trimming and removal programs, and staff was satisfied with its performance. It is staff's recommendation that a contract be awarded to Steve Piper & Sons, Inc. for services related to the 2018 Forestry Maintenance Program, for an amount not to exceed \$67,400.92.

Services related to the above referenced program will be funded from the Capital Projects Fund (08-34-53-4870) in which \$70,000.00 is budgeted in FY2018.

ACTIONS PROPOSED:

Approve Resolution No. 18-R-0001 authorizing the Mayor to execute a contract with Steve Piper & Sons, Inc. of Naperville, Illinois, as lowest responsible bidder, to provide services for the 2018 Forestry Maintenance Program, in an amount not to exceed \$67,400.92.

COMMITTEE RECOMMENDATION:

RESOLUTION NO. 18-R-0001

**A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A CONTRACT
AGREEMENT WITH STEVE PIPER & SONS, INC. OF NAPERVILLE,
ILLINOIS FOR PROFESSIONAL SERVICES RELATED TO THE 2018
FORESTRY MAINTENANCE PROGRAM**

BE IT RESOLVED by the City Council of the City of West Chicago, in regular session assembled, that the Mayor is hereby authorized to execute a Contract Agreement for Professional Services related to the 2018 Forestry Maintenance Program, between the City of West Chicago and Steve Piper & Sons, Inc. of Naperville, Illinois, for an amount not to exceed \$67,400.92, in substantially the form attached hereto and incorporated herein as Exhibit "A".

APPROVED this 15th day of January, 2018.

AYES: _____

NAYES: _____

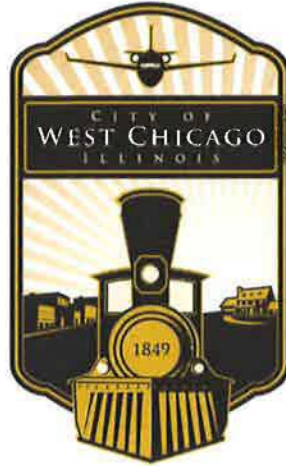
ABSTAIN: _____

ABSENT: _____

Mayor Ruben Pineda

ATTEST:

City Clerk Nancy M. Smith

PUBLIC**WORKS**

ROBERT E. FLATTER, P.E.
 DIRECTOR
 (630) 293-2255
 FAX (630) 293-2971

UTILITY DIVISION	293-2255
STREET DIVISION	293-2250
WASTEWATER DIVISION	293-2261
ENGINEERING DIVISION	293-2255

MEMORANDUM

TO: Michael L. Guttman, City Administrator

FROM: Robert E. Flatter, P.E., Director of Public Works

DATE: December 19, 2017

RE: Alderman Garcia's Email (November 15, 2017) – Re: Dangerous Intersection at Joliet and Wilson Street in West Chicago

This Memorandum is provided in response to Alderman Garcia's email of November 15, 2017 regarding safety concerns associated with the intersection of Joliet Street and Wilson Street (see attached). City staff and Thomas Engineering Group staff members have completed an analysis of the intersection and provided within is our response to Alderman Garcia's concerns.

- 1) *Alderman Garcia's Concern: Traffic turning right onto northbound Joliet must move forward into the intersection by at least 20 ft. to be able to get a clear view of the traffic from both directions on Joliet. There is a West Chicago Water Department Lift Station just north of the intersection that partially blocks the view of the southbound traffic.*

Findings/Response: It is not reasonably feasible or cost effective to relocate Lift Station #4. However, to improve the line of sight for westbound Wilson Street traffic, the stop sign and stop bar on the east side of Joliet Street for westbound Wilson Street will be relocated approximately 25 feet to the west. This work will be completed in spring 2018 when weather permits the grinding/removal of the existing stop bar and the installation of a new thermoplastic stop bar.

- 2) *Alderman Garcia's Concern: The same goes for a vehicle turning south, but is even more dangerous because it has to cut across both lanes of traffic.*

Findings/ Response: To improve the line of sight for westbound Wilson Street traffic, the stop sign and stop bar on the east side of Joliet Street for westbound Wilson Street will be relocated approximately 25 feet to the west. This work will be completed in spring 2018

when weather permits the grinding/removal of the existing stop bar and the installation of a new thermoplastic stop bar.

- 3) *Alderman Garcia's Concern: The foliage on the east side of Joliet RT59 and Wilson protrudes towards the roadway and must be kept well trimmed to prevent blocking the view of the northbound traffic.*

Findings/Response: Street Division staff is aware of the foliage growth on the east side of Joliet Street, south of Wilson Street, and will periodically trim back any new growth to help maintain an acceptable line of sight.

- 4) *Alderman Garcia's Concern: Turning onto Joliet from the west side of the intersection poses the same challenges.*

Findings/Response: To improve the line of sight for eastbound Wilson Street traffic, the stop sign and stop bar on the west side of Joliet Street for eastbound Wilson Street will be relocated approximately 30 feet to the east. This work will be completed in Spring 2018 when weather permits the grinding/removal of the existing stop bar and the installation of a new thermoplastic stop bar.

- 5) *Alderman Garcia's Concern: There are some reflective road marking stakes on the southeast corner that also impair northbound visibility, however, they are necessary to mark the intersection at night.*

Findings/ Response: The pavement marking reflector at the southeast corner of the intersection are necessary to delineate the edge of pavement and prevent motorist from driving onto the gravel shoulder and/or box culvert and are spaced apart to minimize line of sight concerns.

- 6) *Alderman Garcia's Concern: Because there is no turning lane for the southbound traffic to turn east onto Wilson, the turning vehicle must sit in the middle of the intersection until oncoming northbound Joliet traffic is clear. Other vehicles behind the turning vehicle must sit and wait or skirt around by partially protruding into the west side of the intersection.*

Findings/ Response: There is not adequate space within the confines of the existing pavement to install a designated left turn lane on Joliet Street for southbound traffic. In addition, this intersection does not have significant crash experience or high traffic volumes related to left-turning vehicles to warrant the left-turn lane improvements. Cost to widen the pavement to allow for the installation of a southbound left turn lane is estimated at \$105,000.00; assuming that the existing Kress Creek box culvert would not need to be expanded to the west to accommodate the turn lane. See attached Engineering Study Report for additional clarification.

- 7) *Alderman Garcia's Concern: The intersection is poorly lit at night. Only one street lamp.*

Findings/Response: An inspection of the intersection reveals that there are two street lights at this intersection; one located at the northwest corner and one located at the northeast corner. The street light located at the northwest corner is set back a distance from the actual intersection due to the location of ComEd utility poles/lines and the Kress Creek box culvert.

8) *Alderman Garcia's Concern: There is frequent traffic of semi trucks, that is not legal on Joliet.*

Findings/ Response: Joliet Street is clearly marked "5-Ton Weight Limit". The West Chicago Police Department will increase patrol and enforcement.

Alderman Garcia also referenced the fact that "there are no crosswalk safety zones marked for pedestrians". Crosswalks are typically only striped/marked where stop control exists or when associated with a school crossing. Given the fact that there are no sidewalks at the intersection, crosswalks are not required and typically would not be installed; there is only one bike path connection/access at the southeast corner of the intersection but it does not lead to anywhere. Staff does not recommend the installation of crosswalks at this intersection.

For additional clarification, attached please find the following exhibits as prepared by Thomas Engineering Group, LLC:

1. Existing Sight Distance Exhibit
2. Proposed Sight Distance Exhibit
3. Proposed Vehicle Turning Exhibit
4. City of West Chicago Engineering Study Report entitled "Intersection of Joliet Street and Wilson Street, West Chicago, IL", dated December 18, 2017, as prepared by Thomas Engineering Group.

Please feel free to contact me directly with any questions.

REF:ref

Att-

CC: Michael Uplegger, Police Chief
Kevin VanDeWoestyne, P.E., Thomas Engineering Group, LLC.

November 15, 2017

Re: Dangerous Intersection at Joliet and Wilson Streets in West Chicago

I have received several inquiries from residents in my Ward (6th) about the safety of the intersection at Joliet and Wilson Streets.

There are no traffic controls other than stop signs for the traffic entering Joliet Street from Wilson Street. There are no turning lanes on Joliet, and there are no crosswalk safety zones marked for pedestrians.

The traffic on both north-bound and south-bound Joliet is relatively fast, 40-55 mph, and can be relatively heavy at different times of the day.

- 1) Traffic turning right onto northbound Joliet must move forward into the intersection by at least 20 ft. to be able to get a clear view of the traffic from both directions on Joliet. There is a West Chicago Water Department Lift Station just north of the intersection that partially blocks the view of the southbound traffic.
- 2) The same goes for a vehicle turning south, but is even more dangerous because it has to cut across both lanes of traffic.
- 3) The foliage on the east side of Joliet RT59 and Wilson protrudes towards the roadway and must be kept well trimmed to prevent blocking the view of the northbound traffic.
- 4) Turning onto Joliet from the west side of the intersection poses the same challenges.
- 5) There are some reflective road marking stakes on the southeast corner that also impair northbound visibility, however, they are necessary to mark the intersection at night.
- 6) Because there is no turning lane for the southbound traffic to turn east onto Wilson, the turning vehicle must sit in the middle of the intersection until oncoming northbound Joliet traffic is clear. Other vehicles behind the turning vehicle must sit and wait or skirt around by partially protruding into the west side of the intersection.
- 7) The intersection is poorly lit at night. Only one street lamp.
- 8) There is frequent traffic of semi trucks, that is not legal on Joliet

The above summary of observations may be of help with your in-house review.

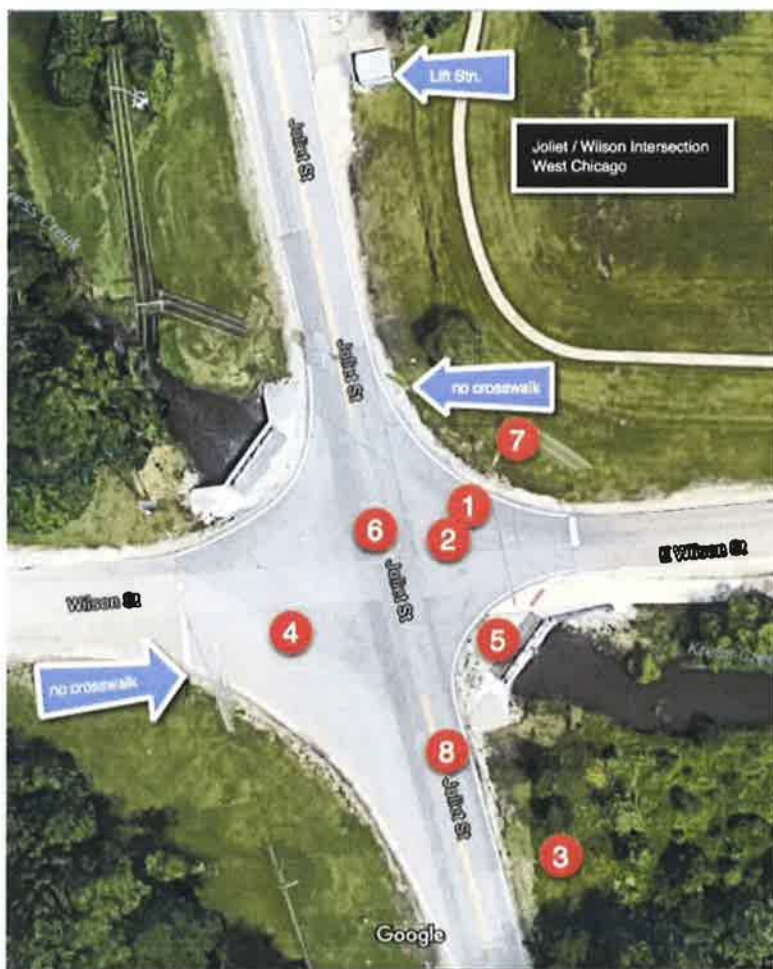
Thanks – George Garcia, Alderman, 6th Ward

Robert Flatter

From: George L Garcia <geolgarcia@icloud.com>
Sent: Wednesday, November 15, 2017 8:22 AM
To: Robert Flatter
Cc: mgutmann@westchicago.org; Becky Stout
Subject: In-house review of Intersection of Joliet & Wilson Streets
Attachments: Joliet Wilson Intersection.docx

Good Morning, Rob:

I am attaching a summary of my observations and concerns. This may be of help the review process.



CITY OF WEST CHICAGO ENGINEERING STUDY

Intersection of Joliet Street and Wilson Street
West Chicago, IL



Prepared by:



Thomas Engineering Group, LLC | December 18, 2017

INTRODUCTION

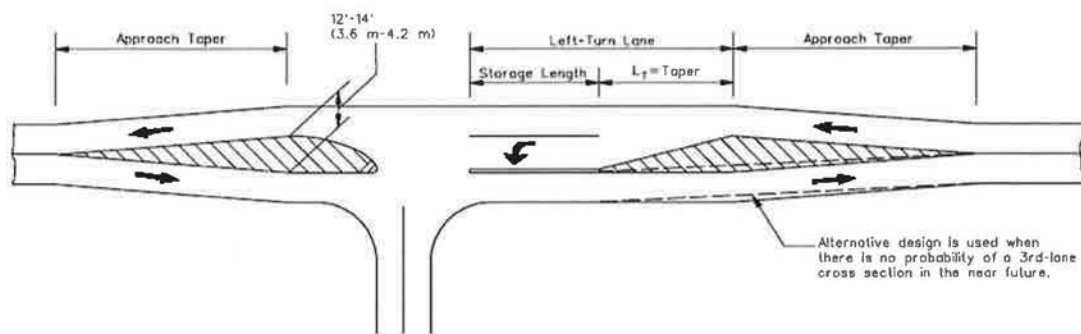
The City of West Chicago has requested that Thomas Engineering Group, LLC (TEG) perform an engineering study to determine the feasibility of creating an auxiliary turn lane for left-turning vehicles from southbound Joliet Street to eastbound Wilson Street.

EXISTING CONDITIONS

The four way intersection of Joliet Street and Wilson Street is located between Illinois Route 59 and Illinois Route 38 in the City of West Chicago. The posted speed limit along this section of Joliet Street is 40 mph. Regulatory traffic control at the intersection includes stop signs at two legs, controlling the east and west legs of Wilson Street. Joliet Street is uncontrolled through the intersection, whereby, Wilson Street traffic must yield the right-of-way to Joliet Street traffic. Traffic counts are not available for the intersection of Joliet Street and Wilson Street and our team was not asked to gather intersection traffic data.

APPLICABLE STANDARDS

In this report, TEG will utilize the current versions of the Manual on Uniform Traffic Control Devices for Streets and Highways, or MUTCD, and the Illinois Department of Transportation (IDOT) Bureau of Local Roads and Streets Manual (BLR). Specifically, Chapter 34 – Intersections is used as the basis of the minimum design standards for examining the feasibility of auxiliary turn lanes at this location.



APPROACH TAPER RATES FOR FLUSH CHANNELIZATION					
Present Posted Speed (mph)	Design Speed	Approach Taper Rates		Left-Turn Lane	
		Widening on Both Sides	Widening All on One Side	Taper Rate	Minimum Storage Length*
≥ 50	50 mph (80 km/h)	50:1	40:1	15:1	115 ft (35 m)
45	45 mph (70 km/h)	45:1	35:1	13:1	115 ft (35 m)
40/35	40 mph (60 km/h)	40:1	30:1	11:1	115 ft (35 m)
≤ 30	30 mph (50 km/h)	35:1	25:1	9:1	115 ft (35 m)

ENGINEERING STUDY

Intersection of Joliet Street and Wilson Street

Minimum Design Standards

- 40:1 approach taper is per BLR standard (Design speed = 40 MPH) for widening on both sides
- 30:1 approach taper is per BLR standard (Design speed = 40 MPH) for widening all on one side
- 11:1 left turn taper is per BLR standard (Design speed = 40 MPH)
- 115' storage length is BLR design minimum for deceleration and storage lane
- Desirably, turn-lane widths should be 12 ft or a minimum of 10 ft

Using the applicable standards above, the following minimum design components apply to a typical auxiliary lane at this intersection:

- 40:1 approach taper using minimum, 10 ft auxiliary lane = 400 ft
- 30:1 approach taper using minimum, 10 ft auxiliary lane = 300 ft
- 11:1 left turn taper using minimum, 10 ft auxiliary lane = 110 ft
- 115' storage length

CONCEPTUAL DESIGN

Using the minimum design standards, the conceptual design is illustrated over the aerial image of the intersection (refer to Exhibit A next page). As can be seen by the conceptual drawing, additional work will be required to install a 10 ft wide left turn lane in the southbound direction.

The existing pavement width is approximately 24 ft wide. The minimum proposed pavement width necessary to support an auxiliary lane is 34 ft. If widening occurs on both sides of the road, then approximately 5 ft of pavement needs to be added in both directions of travel along Joliet Street. There are several constraints, which makes pavement widening in this area challenging, such as the existing pavement width, the nearby sanitary sewer lift station, and the box culvert and associated roadside hazards associated with the waterway.



The combined distance of the improvement on the north side of the intersection is 525 ft, minimum, to 625 ft. Due to the proximity of the lift station, widening is not recommended along the northbound lane. Therefore, widening all about one side, southbound, is illustrated below.



EXHIBIT A: DESIGN CONCEPT

The cost of adding the turn lane would be substantial and improvements would impact the remaining roadside clearance distance to the existing box culvert. If determined to be feasible, the total estimated cost to construct the improvements in the southbound direction, as described herein, is approximately \$105,000 as follows:

Pavement Widening ~ 600 SY x \$120/SY = \$72,000

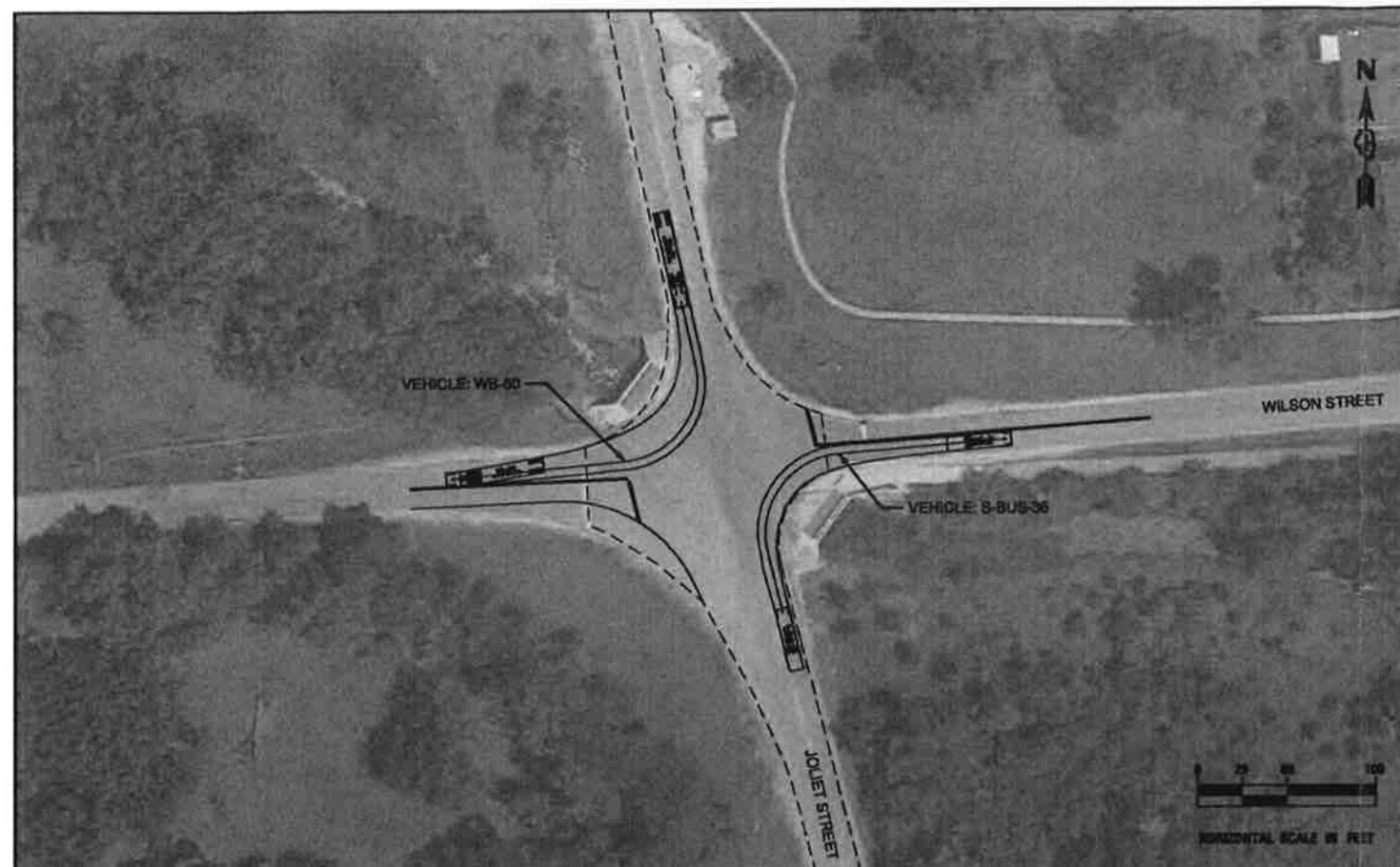
Pavement Resurfacing (southbound lane and auxiliary lane, centerline to edge of pavement) and
Installation of Pavement Markings = ~ 1100 SY x \$30/SY = \$33,000

RECOMMENDATION

While left-turn lanes can improve the level of service and intersection safety, it is our understanding that this intersection does not have significant crash experience or high traffic volumes related to left-turning vehicles. This, in combination with our findings and the significant cost of roadway widening, suggests that the intersection remain without auxiliary turn lanes unless a capacity analysis determines otherwise.



DRAWN BY DJN	DATE	REVISIONS		 CITY OF WEST CHICAGO 475 MAIN STREET WEST CHICAGO, IL 60185 PHONE: 630-293-2255 FAX: 630-293-2871	 thomas engineering group service at the highest grade	thomas engineering group, llc 55 w. 22nd street suite 300 lombard, il 60148 phone: 855-533-1700	JOLIET STREET & WILSON STREET	PROPOSED SIGHT DISTANCE EXHIBIT	DRAWING NO. _____ OF _____
		NO.	DATE						
CHECKED BY KCV	SCALE								



DRAWN BY DJN	DATE	REVISIONS				CITY OF WEST CHICAGO 475 MAIN STREET WEST CHICAGO, IL 60185 PHONE: 830-283-2255 FAX: 830-293-2971	 thomas engineering group, llc 55 w. 22nd street suite 300 lombard, IL 60148 phone: 855-533-1700	JOLIET STREET & WILSON STREET	PROPOSED VEHICLE TURNING EXHIBIT	DRAWING NO. _____ OF _____
		NO.	DATE	DESCRIPTION						
CHECKED BY KCV	SCALE									