June 18, 2018 QA

Wednesday, June 13, 2018 3:54 PM

I. CONSENT AGENDA:

1. 18-475 Approve 05/02/2018 to 05/31/2018 Cash Disbursement for $30,381,267.08

Q:	**Please provide a graph by Department against approved budget for each Department year to date.**	**Gustin, Patty**
A:	Attached are the expenses by department through period 5.	Hallgren, Erik

2. 18-504 Approve the Naper Settlement & Naperville Nokia Campus Workshop minutes of April 9, 2018

Q:	• **Please include Attorney Whitaker's response to the question "Gustin - A recent report completed in DuPage County noted a drastic reduction in the inventory of single-family homes since 2009. Would the developer be amenable to reducing the multi-family portion of the PUD to accommodate additional single-family homes, which may also have a benefit to the ecological concerns? " noted in the minutes.**	**Gustin, Patty**
A:	Unfortunately, we do not have an audio recording of the Nokia portion of the April 9, 2018 workshop. While staff does not recall Mr. Whitaker providing a response to the question noted above, we have contacted Mr. Whitaker for additional feedback. Staff can provide any additional information received from Mr. Whitaker at the June 19th City Council meeting.	Laff

3. **18-511** Approve the regular City Council meeting minutes of June 5, 2018

4. **18-439** Approve the award of Sole Source Procurement 18-144, Smart 9-1-1 Safety Solution Renewal, to Rave Mobile Safety for an amount not to exceed $150,000 and for a five-year term

5. **18-454** Approve the award of Bid 18-102, 2018 Goodyear Flow Control Valve Installation, to Joseph J. Henderson & Son, Inc. for an amount not to exceed $147,428, plus a 5% contingency

6. **18-455** Approve the award of RFQ 18-064, Engineering Services for Water and Wastewater Projects, to Crawford Murphy & Tilly, Inc., Walter E. Deuchler Associates, Inc., Donohue & Associates, Inc., Lockwood Andrews & Newnam, Inc. and Strand Associates, Inc. as approved vendors for future projects and for a three-year term

7. **18-457** Approve the award of Cooperative Procurement 18-148, One 2018 Vactor Sewer Flusher to Standard Equipment for an amount not to exceed $481,444.56

8. **18-485** Approve the award of Bid 18-129, 72.5Kv Circuit Breaker, to Universal Utility Supply Company for an amount not to exceed $119,697

9. **18-489** Approve the award of Bid 18-121, Traffic Signal at 95th and Knoch Knolls to H&H Electric Company for an amount not to exceed $306,538.15, plus a 5% contingency

Q:	**Can you please provide a copy of the warrant and accident report?**	**Gustin, Patty**
A:	A copy of the traffic signal warrant analysis for the 95th and Knoch Knolls intersection is attached. The intersection met the minimum criteria for the eight hour vehicular volume, four hour vehicular volume, peak hour vehicular volume, and crash experience warrants.	Hynes, Andy

10. **18-517** Approve appointments to the Board of Library Trustees and the Riverwalk Commission

Q:	**How many board members do we have on each of these boards?**	**Gustin, Patty**
A:	The Riverwalk Commission has a total of 12 commissioners; 11 voting members and 1 ex officio non-voting member from the Park Board of Commissioners. The Board of Library Trustees has 9 directors.	Erickson, Jan & Trotz, Emy

11. **18-513** Accept the public street improvements at Villas at Trafford Place and authorize the City Clerk to reduce the corresponding public improvement surety.

12. **18-514** Approve the City Council meeting schedule for June, July,

August and September 2018

13. **18-221** Waive the first reading and pass the ordinance amending Title 2 Chapter 9 of the Naperville Municipal Code (Advisory Cultural Commission) (requires six positive votes)

Q:	**Please provide a copy of the SECA Master Plan.** **Is it the intent for the SECA Master Plan to be or become obsolete?**	**Gustin, Patty**
A:	The City Clerk's Office assumed responsibility for SECA in 2011. At that time, the Commission approved a number of staff recommendations to improve the overall grant process. One approved change was to discontinue reference to the SECA Master Plan. Not only was the Plan outdated by 2011, the likelihood of annual revisions to the process going forward made the Plan irrelevant. Instead, staff and the Commission followed the SECA Mission Statement and incorporated any change to the annual grant process in the newly created SECA Application Manual. Therefore, the Plan has been obsolete since 2011. Because staff is aware of organizations that create a conflict for Commissioners removing a Commission member for not filing a form is somewhat heavy handed. However, removal is more likely if a Commissioner is discovered to have participated in deliberation and/or voted on an award where a conflict exists. A paragraph clarifying removal can be added.	Pam Gallahue

14. **18-388** Pass the ordinance ascertaining prevailing wages in the City of Naperville

15. **18-497** Waive the first reading and pass the ordinance amending Chapter 9 (Transportation Advisory Board) of Title 2 (Boards and Commissions) of the Naperville Municipal Code pertaining to membership (requires six

positive votes)

Q:	**Do we have any problems finding residents that meet the criteria to be on this board? Just wondering if we need to adjust the number of expertise members?**	**Hinterlong, Paul**
A:	The criteria has not posed a challenge to finding members. However, staff does not have concerns with decreasing the number if City Council feels that it would encourage more residents to participate.	Louden, Jennifer

16. **18-503** Pass the ordinance establishing the temporary traffic controls and issue a Special Event and Amplifier permit for the Naperville Sprint Triathlon on Sunday, August 5, 2018

17. **18-506** Pass the ordinance to establish temporary street closures and parking restrictions for the India Day Parade Celebration and issue a Special Event and Amplifier permit for the event to be held on Sunday, August 12, 2018

18. **18-367** Approve the fireworks display application and issue a permit for the August 12, 2018 India Day Celebration

19. **18-440B** Pass the ordinance amending Title 1, Chapter 6, Article A of the Naperville Municipal Code and adding Chapter 14 to Title 1 to the Naperville Municipal Code to establish an administrative procedure for assessing and determining claims made under the Public Safety Employee Benefits Act.

20. 18-516 Approve the request from the Century Walk to install a Laughing Lincoln sculpture in Central Park

Q:	**1. Will the City accept ownership of the statue upon installation?** **2. If not, which entity will own (and be responsible for maintenance) of the statue?**	**Boyd-Obarski, Rebecca**
A:	1. No, the City will not accept ownership upon installation. 2. The Century Walk Corporation will retain ownership and be responsible for maintenance of the statue.	Novack

21. 18-520 Conduct the first reading of an ordinance amending Sections 3 and 11 of Title 3, Chapter 3, of the Naperville Municipal Code adding a Bartending Services Permit and Dispenser Permit.
Dispenser Permit.

Q:	**1. Is the proposed ordinance requiring bartender permits limited to bartenders that are not otherwise associated with a licensed establishment or catering business?** **2. Do I understand correctly that the permits for catering and bartending services are each $1,000 per year?** **3. If a catering company has bartenders, the bartenders are covered under its license, correct?** **4. Dispenser permit - does the City require video monitoring of any other licensed establishment?** **5. What is the rationale for requiring the establishment to provide access to the video upon request to "any agent of the local Liquor and Tobacco Commission"? Who are those agents? What enforcement authority do they have?**	**Boyd-Obarski, Rebecca**
A:	1. Yes, that is correct. The purpose for the revision was to place requirements on	Lutzke,

	bartending services not otherwise associated with a licensed establishment or catering business. 2. Yes, the bartending service and catering license are $1,000 each. 3. Yes, bartenders for catering services would not need to obtain a bartending services license because it is already covered under the catering license. 4. No, the City does not currently require video monitoring of other liquor establishments. 5. The intent is that Detective Riggs, the police department liquor liaison, have access to video to ensure that underage service or other liquor code violations are not occurring. He has the authority to issue tickets for violations of the liquor code.	Jennifer
Q:	**As this is a fairly new business model, will there or is there a cap on the number of self-service type businesses allowed in town?**	**Gustin, Patty**
A:	The ordinance provides that dispenser permits are capped at two for establishments located in the downtown and four for licensed establishments not located in the downtown.	Lutzke, Jennifer

22. **18-525** Waive the first reading and pass the ordinance amending Sections, 9-1A-2, 9-1B-4, 9-1B-10, 9-1B-16, 9-1B-21, 9-1B-24 9-1E-2, 9-1E-5 of Naperville Municipal Code pertaining to small wireless facilities in the right-of-way (requires six positive votes).

Q:	**1. Who is the "Director"?** **2. What is the duration of the permit?** **3. Are there maintenance and upkeep requirements for the permitted facilities?**	**Boyd-Obarski, Rebecca**
A:	1. 9-1A-3 of the Naperville Municipal Code states that all references to the Director in this Chapter shall mean the Director of Public Works or the Director of TED, as applicable. In this portion of the Chapter, the Director of TED would be responsible for overseeing the small wireless facilities deployment.	Lutzke, Jennifer

	2. The Small Wireless Facilities Deployment Act and 9-1B-8 of the Naperville Municipal Code limit the duration of permits/ licenses to five years. 3. 9-1F-23 outlines the maintenance requirements for facilities. It requires that the facilities be maintained in a good and safe manner that complies with state, federal and local requirements. It requires a biennial inspection or when the City otherwise so requests. It also requires that inspection reports be provided to the City when the City requests.	

23. 18-465 Adopt the resolution approving the fifth amendment to the intergovernmental agreement between the City of Naperville and the Naperville Park District for the Naperville Riverwalk

Q:	**1. Which entity will own the Harmony Park instruments upon installation?** **2. Is the Rotary providing a lump sum up front for the first 5 years of maintenance? Or, is their contribution upon expenditure and reimbursement?** **3. Which entity will have decision-making authority as to whether the Harmony Park instruments should be replaced or removed at a date in the future?**	**Boyd-Obarski, Rebecca**
A:	1. The City of Naperville will own the instruments upon installation. 2. The Rotary Club is paying for all five years of maintenance in the first year. The Club is paying all five years up front since one board cannot bind a future board with a monetary obligation. 3. Following installation the Naperville Park District will maintain the instruments. The Park District works closely with the Naperville Riverwalk Commission with respect to the assets on the Riverwalk. The Riverwalk Commission takes an annual walk around the Riverwalk and discusses certain assets and the troubles that are encountered over the years. If there were issues with Harmony Park, it would be discussed at length with the Riverwalk Commission, and then the Commission would reach out to any affected stakeholders before taking any action. In the end, the decision will rest with the Riverwalk Commission.	Novack
Q:	**Do we have any renderings of the Harmony Park?**	**Hinterlong, Paul**
A:	I'm having a bit of trouble acquiring a rendering of Harmony Park but I have attached page 2 of the construction documents that show the layout of the	Erickson, Jan

	park. I will continue to seek a rendering prior to the City Council meeting. Attached is a rendering of Harmony Park. 6/20/18 Harmony Park	

24. **18-487** Adopt a resolution approving an intergovernmental agreement for the installation of a traffic signal at the intersection of Mill Street and Commons Road

Q:	**Do all of the City's signals require annual maintain as reflected in this item, if so what is annual cost to the city?**	**Gustin, Patty**
A:	All City and County traffic signals are maintained by contract. Under current contract prices, the total annual maintenance cost is $1,836 per signalized intersection. DuPage County has agreed to pay 50% of the annual maintenance cost. For the Mill and Commons traffic signal, the City's portion of the current annual maintenance cost will be $918. The $1,500 annual fiscal impact includes the maintenance cost as well as the cost of electricity to power the signal. (Hynes)	Hynes, Andy

25. **18-509** Adopt the resolution approving the intergovernmental agreement between the City of Naperville and the Illinois Environmental Protection Agency to operate a long-term household hazardous waste collection facility.

Q:	**As the City is the largest recipient of waste from surrounding areas, is there a way to negotiate in the new Agreement, if IEPA suspends or terminates the Agreement at any time damages can be recouped by the City for pending balance of waste hauler expenses? And a provision for IEPA to provide notice, 1 year or 6 month notice in line with the State budget approval of non-payment so Naperville can better prepare its budget? Did the State pay for all hauling in the past, I thought it was mentioned, if so how can the City negotiate that expense back in to the Agreement?**	**Gustin, Patty**
A:	**Question: As the City is the largest recipient of waste from surrounding areas, is there a way to negotiate in the new Agreement, if IEPA suspends or terminates the Agreement at any time damages can be recouped by the City for pending balance of waste hauler expenses?** Response: The IEPA is working toward consistency between the agreements for the four (4) current permanent household hazardous waste facilities in the State. It is not relevant to that goal that the City's HHW Facility provides more services than the other HHW Facilities in the State. The Agreement provides that the IEPA is obligated to provide collection services up to but not including the effective date of suspension or termination. That was the most the IEPA was willing to agree to contractually, which leaves a possible gap of one day. Staff does not anticipate that coverage of that last day will be a problem in the event that suspension or termination actually occurs. **Question: [Can a provision be negotiated in the Agreement] to provide notice, 1 year or 6 month notice in line with the State budget approval of non-payment so Naperville can better prepare its budget?** Response: If the IEPA determines that suspension or termination is necessary due to insufficient funds, they require the ability to have notice of suspension or termination take effect upon receipt. This is language that the City was advised by IEPA's legal counsel is mandated by the Governor's office, and the IEPA will not consider any revisions of any kind to these provisions.	Lord, Pat

	A separate provision in the Agreement provides that if termination is determined to be necessary by either the IEPA or the City, for any reason, either party can terminate with sixty (60) days' notice. This sixty (60) day provision has been a term in the Agreement for several years and gives the City flexibility, as well as the IEPA, in the event that the City Council deems it necessary or appropriate to terminate the HHW program. Moreover, despite the terseness of the negotiations on this Agreement, City staff and IEPA staff have collaborated well over the years, and it is anticipated that we will work together to avoid suspension or termination occurring, but if either occurs, to take all steps possible to make such suspension or termination occur in a reasonable manner with as much notice as possible. **Question: Did the State pay for all hauling in the past, I thought it was mentioned, if so how can the City negotiate that expense back in to the Agreement?** Response: Under the proposed Agreement, the IEPA will continue to pay for pick-up and disposal of household hazardous waste at the City's HHW Facility unless the Agreement is suspended or terminated. Hiring and paying for the waste hauler has been the IEPA's responsibility since the inception of the City's HHW Facility, and its partnership with the IEPA, more than 25 years ago. During the negotiations on the pending Agreement, and for the first time in the history of the City's relationship with the IEPA, the IEPA proposed a cap on the amount it would pay for waste hauler services ($250,000 a year when waste hauling costs for the HHW Facility annually cost more than $500,000). Since such a cap had not been imposed by the IEPA on any other HHW Facility in the State, and in the face of the City's resistance to imposition of such a cap, the IEPA ultimately agreed to remove any cap from the Agreement. Nonetheless, the IEPA has indicated an ongoing concern with its possible inability to pay for all waste hauling costs for the permanent HHW facilities in the State given the demands they foresee on their budget. That concern is alleviated by virtue of the language in the Agreement required by the Governor's office, discussed above, by which the IEPA is able to suspend or terminate the Agreement at any time if it determines that it does not have sufficient funding available to pay for such services.	
Q:	**So total cost to our budget would be $123,000? $278,000 minus the**	**Hinterlong,**

	$155,000?	**Paul**
A:	Correct, the total cost to the City's budget is $123,000 which is the total budget of $278,000 less the $155,000 contributed by the funding partners.	Lang, Beth

26. 18-518 Approve the recommendation by Alliant Insurance to award Property, Cyber Liability and Pollution Liability Insurance coverage through the Alliant Property Insurance Program for a one-year term and an amount not to exceed $314,187.77.

Q:	**1. Please explain why we carry these policies and what foreseeable risk has been identified.** **2. Please provide examples of past claims on similar prior policies.** **3. Please provide a specific example of municipal liability for cyber (privacy liability) coverage and the rationale for all of the cyber coverage, e.g., business operations loss coverage, cyber forensic, cyber PCI**	**Boyd-Obarski, Rebecca**
A:	**<u>Q. Please explain why we carry these policies and what foreseeable risk has been identified.</u>** A. There are three components to the Alliant Property Insurance Program: property, pollution liability and cyber liability. ○ The property policy protects the city against physical damage to City facilities, such as fires, earthquakes and floods. This policy also insures boilers and machinery against damage incurred from similar events. Living in the Midwest, the city has the potential to incur damage due to several natural events, particularly issues related to floods and high winds. Much like	Mayer, Rachel

home insurance, the APIP policy provides some financial protection against damage related to these events.
    - Pollution liability protects against issues such as raw sewage ruptures and accidents involving chemicals and waste products.
    - The Cyber policy covers against fines and penalties associated with Payment Card Industry (PCI) regulations. In the past decade, the City has already dealt with one network intrusion and the IT department is constantly monitoring and protecting the City from potential cyberattacks. This policy adds an additional layer to that fight, which is more vital now than in past decades due to the increased use of technology to receive and store information, including potentially sensitive materials of residents, employees and vendors.

Q. Please provide examples of past claims on similar prior policies.

A. The City has made three claims on the proposed policies in the past 10 years. In 2013, the City filed a data breach claim through the cyber liability policy. The same year, the City also filed a claim for flood loss on the property policy. Naper Settlement also filed a claim for fire loss under the property policy in recent years.

In addition to those examples, the City's insurance broker, Alliant Insurance Services, provided a list of potential claims related to the property and pollution liability policies. The list includes the following:

Wastewater Treatment Plants/Pumping Stations:

- Nuisance odor claims
- Raw sewage rupture
- Chlorine gas emissions
- Historic site conditions

Maintenance Garage Services:

- Aboveground tanks

- Parts washer solvents
- Petroleum waste products
- Vehicle storage

Parks, lakes, rivers and open land:

- Midnight dumping
- Discharge of raw sewage/industrial waste
- Asphalt paving projects with storm discharge to open waters
- Unknown subsurface conditions

Abandoned industrial sites

Landfills:

- Unknown locations within municipality
- Rupture of leachate lines and groundwater contamination
- Leachate runoff into open waters
- Uncontrolled stormwater
- Nuisance odor

Incinerators:

- Airborne particulates
- Heavy metals: airborne and in residual ash
- Airborne volatile organic compounds (VOCs)

Aboveground/underground storage tanks which present several exposures:

- Leaks from tank bottoms
- Ruptures during a catastrophic release
- Spills during loading/unloading process

Q. Please provide a specific example of municipal liability for cyber (privacy liability) coverage and the rationale for all of the cyber coverage, e.g., business operations loss coverage, cyber forensic, cyber PCI

A. Cyber liability primarily to protect residents and vendors from online attacks to obtain personal information. As a billing organization, the City must take precautions to ensure all personal information, including credit card numbers and bank accounts, as well as social security numbers for

	employees, remain private. In recent years, cyber-attacks have become more common among municipalities. Alliant provided a link to a very recent event occurring in Atlanta, Georgia, where the City of Atlanta anticipates spending more than $12 million to resolve a ransomware virus infection from March. The infection resulted in several weeks of disrupted city services and the loss of more than 400 software applications. A link to the story is provided below. https://www.washingtontimes.com/news/2018/jun/7/atlanta-expects-ransomware-infection-sought-50000-/	

27. **18-519** Approve the recommendation by Alliant Insurance Services to award Excess Liability Insurance coverage to Great American Insurance Company for a one-year term and an amount not to exceed $149,220.

J. PUBLIC HEARINGS:

1. **18-507** Conduct the Public Hearing on the Program Year 2017 Community Development Block Grant Comprehensive Annual Performance and Evaluation Report (Item 1 of 2)

2. **18-510** Approve the Program Year 2017 Community Development Block Grant Consolidated Annual Performance and Evaluation Report, authorize staff to include any comments received, and submit the report to HUD (Item 2 of 2)

3. **18-505** Conduct the Public Hearing for Substantial Amendment I to the Community Development Block Grant Program Year 2018 Annual Action Plan (Item 1 of 2)

Q:	**J3 and J4:** **I think there's a typo between the dollar amounts? $598,432 or $598,452?**	**Hinterlong, Paul**
A:	$598,452 is the correct amount.	

4. **18-508** Approve Substantial Amendment I to the Program Year 2018 Annual Action Plan allocating a total of $598,452 of Community Development Block Grant funds (Item 2 of 2)

K. OLD BUSINESS:

1. **18-527** Approve Ryan Companies to continue with 5th Avenue Community engagement efforts to determine feasible and beneficial redevelopment options for City Council consideration.

L. ORDINANCES AND RESOLUTIONS:

1. **18-438B** Pass the ordinance amending Chapter 4 (Animal Control) of Title 10 (Police Regulations) of the Naperville Municipal Code

Q:	**Please confirm the concept of a warranty being placed on a commercially sold pet is already established under the State Puppy Lemon Law (I.e. this warranty concept that we are including in our proposed ordinance is not novel but in fact long established...ours is just longer).**	**Coyne, Kevin**
A:	Since January 1, 2014, the State of Illinois has required pet shop operators to	Foley,

	provide a one-year warranty for congenital and hereditary conditions on dogs or cats sold in stores.	Kristen

M. AWARD OF BIDS AND OTHER ITEMS OF EXPENDITURE:

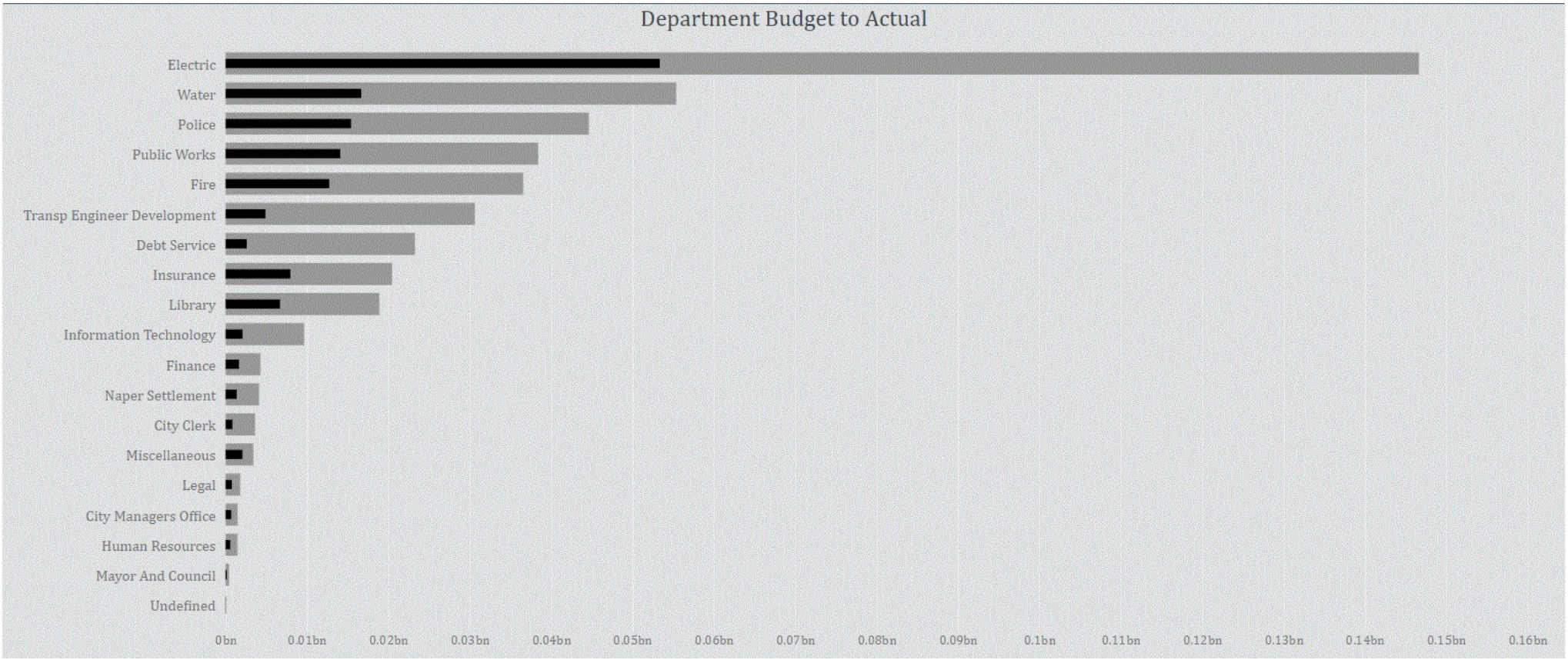
1. **18-472** Approve the award of Bid 18-025, Motor Fuel, to Luke Oil for an amount not to exceed $1,960,840.50 and for an 18-month term

O. REPORTS AND RECOMMENDATIONS:

1. **18-099C** Select a funding level for City participation regarding a replacement fence along the north side of 95th Street

Q:	**1. When we will we know if Will County will financially participate in this effort?**	**Boyd-Obarski, Rebecca**
A:	The County has indicated that their Public Works Committee would have to approve of their financial participation. If an alternative is selected and participation from all other parties is confirmed, then the request should be sent to the County. Staff believes that the County will be hesitant to even considering a request unless all other parties are committed to their financial participation too.	Novack
Q:	**Many aspects of the write up confuse me. I have talked to Will County Board members about this matter and there appears to be little chance Will County will contribute to this. It is also my understanding that many neighbors also have already stated they are not willing or able to financially contribute to this. Isn't the real options either A. We are buying a new fence for the homeowner or B. We are not. Is there a reason a contribution of zero isn't shown as an option?**	**Coyne, Kevin**

A:	At the May 15th City Council meeting, the majority of the City Council supported some level of City participation to replace the fence. The agenda item was written to reflect the direction from the City Council. Any member of the City Council may make a motion for an alternative that is not listed in the write-up.	Novack


Department Budget to Actual
Electric
Water
Police
Public Works
Fire
Transp Engineer Development
Debt Service
Insurance
Library
Information Technology
Finance
Naper Settlement
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Miscellaneous
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Summary of the Signal Warrant Analysis

95th Street and Knoch Knolls Road

Naperville, Illinois

August 31, 2017

Warrant	Warrant Met (Yes or No)
1 - Eight-Hour Vehicular Volume	Yes
2 - Four-Hour Vehicular Volume	Yes
3 - Peak Hour Vehicular Volume	Yes
4 - Pedestrian Volume	No
5 - School Crossing	No
6 - Coordinated Signal System	No
7 - Crash Experience	Yes
8 - Roadway Network	No
9 - Intersection Near a Grade Crossing	No

Warrant 1: Eight-Hour Vehicular Volume
Condition A - Minimum Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both directions of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent colums of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor-street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Pass/Fail: **Pass**

	Thru Lanes	Minimum
Major Street: 95th Street	2	420
Minor Street: Knoch Knolls Road	1	105

Time	Major Street Both Approaches	Minor Street Higher Volume Approach	Pass
6:00	436	63	Fail
7:00	741	120	Pass
8:00	767	153	Pass
9:00	599	171	Pass
10:00	622	168	Pass
11:00	563	156	Pass
12:00	709	165	Pass
1:00	607	143	Pass
2:00	541	88	Fail
3:00	675	117	Pass
4:00	787	199	Pass
5:00	1019	321	Pass
6:00	628	84	Fail
7:00	578	74	Fail

Warrant 1: Eight-Hour Vehicular Volume
Condition A - Minimum Vehicular Volume

Table 4C -1: Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (both approaches)				Vehicles per hour on higher volume minor street approach (one direction only)			
Major Street	**Minor Street**	**100%[a]**	**80%[b]**	**70%[c]**	**56%[d]**	**100%[a]**	**80%[b]**	**70%[c]**	**56%[d]**
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

a - Basic minimum hourly volume

b - Used for combination of Conditions A and B after adequate trial of other remedial measures

c - May be used when the major street exceeds 40mph or in an isolated community with a population of less than 10,000

d - May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major speed exceeds 40mph or in an isolated community of less than 10,000.

Warrant 1: Eight-Hour Vehicular Volume
Condition B - Interruption of Continuous Traffic

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both directions of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent colums of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor-street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Pass/Fail: **Fail**

	Thru Lanes	Minimum
Major Street: 95th Street	2	630
Minor Street: Knoch Knolls Road	1	53

Time	Major Street Both Approaches	Minor Street Higher Volume Approach	Pass
6:00	436	63	Fail
7:00	741	120	Pass
8:00	767	153	Pass
9:00	599	171	Fail
10:00	622	168	Fail
11:00	563	156	Fail
12:00	709	165	Pass
1:00	607	143	Fail
2:00	541	88	Fail
3:00	675	117	Pass
4:00	787	199	Pass
5:00	1019	321	Pass
6:00	628	84	Fail
7:00	578	74	Fail

Warrant 1: Eight-Hour Vehicular Volume
Condition B - Interruption of Continuous Traffic

Table 4C -1: Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (both approaches)				Vehicles per hour on higher volume minor street approach (one direction only)			
Major Street	**Minor Street**	**100%[a]**	**80%[b]**	**70%[c]**	**56%[d]**	**100%[a]**	**80%[b]**	**70%[c]**	**56%[d]**
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

a - Basic minimum hourly volume

b - Used for combination of Conditions A and B after adequate trial of other remedial measures

c - May be used when the major street exceeds 40mph or in an isolated community with a population of less than 10,000

d - May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major speed exceeds 40mph or in an isolated community of less than 10,000.

Warrant 2: Four-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

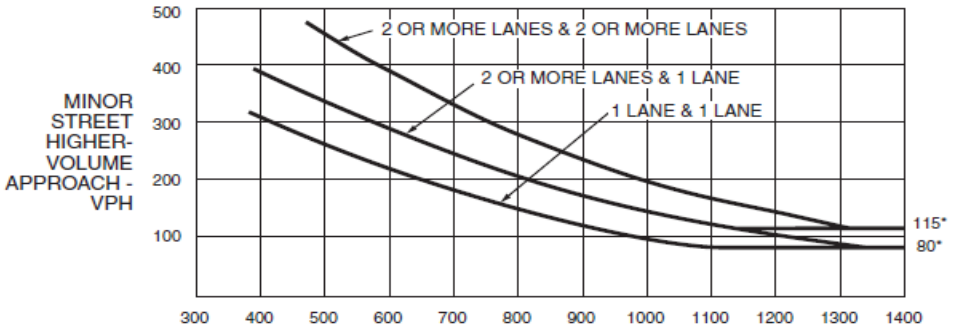
If the posted or statutory speed limit or the 85th-percentile spped on the major street exceeds 40 mph or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figture 4C-1.

Major Route Speed = 45 **Use: Figure 4C-2**

Pass/Fail: **Pass**

Time	Major Street: Both Approaches	Minor Street: Higher Volume Approach	Pass
6:00	436	63	Fail
7:00	741	120	Pass
8:00	767	153	Pass
9:00	599	171	Pass
10:00	622	168	Pass
11:00	563	156	Pass
12:00	709	165	Pass
1:00	607	143	Pass
2:00	541	88	Fail
3:00	675	117	Pass
4:00	787	199	Pass
5:00	1019	321	Pass
6:00	628	84	Pass
7:00	578	74	Fail

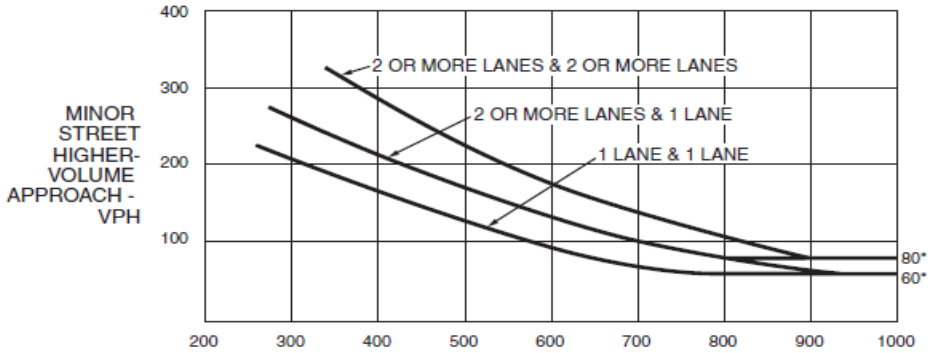
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Warrant 3: Peak Hour Vehicular Volume

This signal warrant shall be applied only in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attact or discharge large numbers of vehicles over a short time.

Pass/Fail: **Pass**

The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

Time	Major Street Both Approaches	Minor Street Higher Volume Approach	Pass
6:00	436	63	Fail
7:00	741	120	Fail
8:00	767	153	Fail
9:00	599	171	Fail
10:00	622	168	Fail
11:00	563	156	Fail
12:00	709	165	Fail
1:00	607	143	Fail
2:00	541	88	Fail
3:00	675	117	Fail
4:00	787	199	Pass
5:00	1019	321	Pass
6:00	628	84	Fail
7:00	578	74	Fail

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day.

1. **The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4-vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and**

2. **The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and**

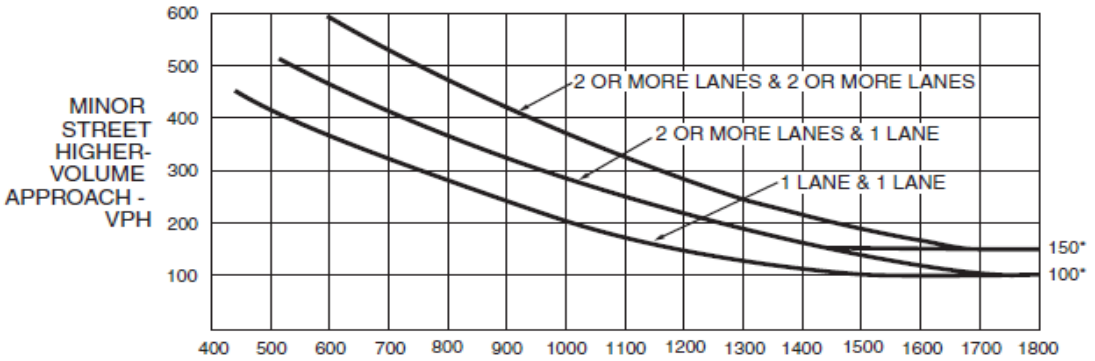
3. **The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.**

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

If the posted or statutory speed limit or the 85th-percentile spped on the major street exceeds 40 mph or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figture 4C-1.

Major Route Speed = 45 **Use: Figure 4C-4**

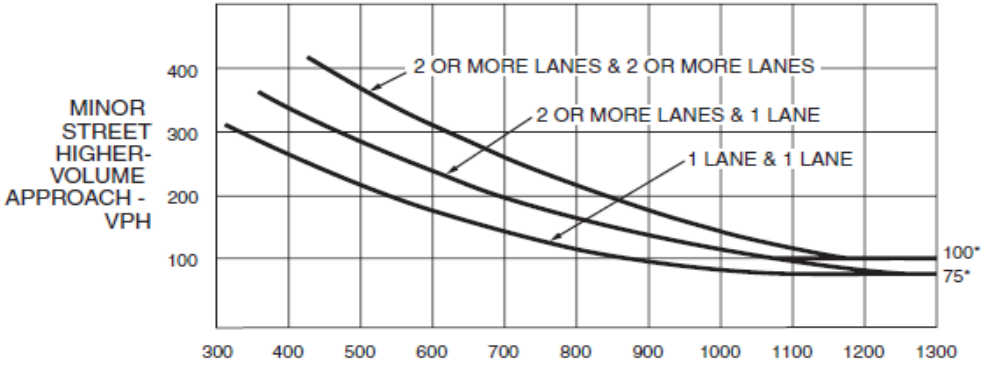
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 4 - Pedestrian Volume

The need for a traffic control signal at an intesrection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

A. **For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total) of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or**

B. **For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour on the major street (total of all approaches) falls above the curve in Figure 4C-7. each direction of vehicular traffic.**

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 35 mph, or fi the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-6 may be used in place of 4C-5 to evaluate Criterion A and Figure 4C-8 may be used in place of Figure 4C-7 to evaluate Criterion B.

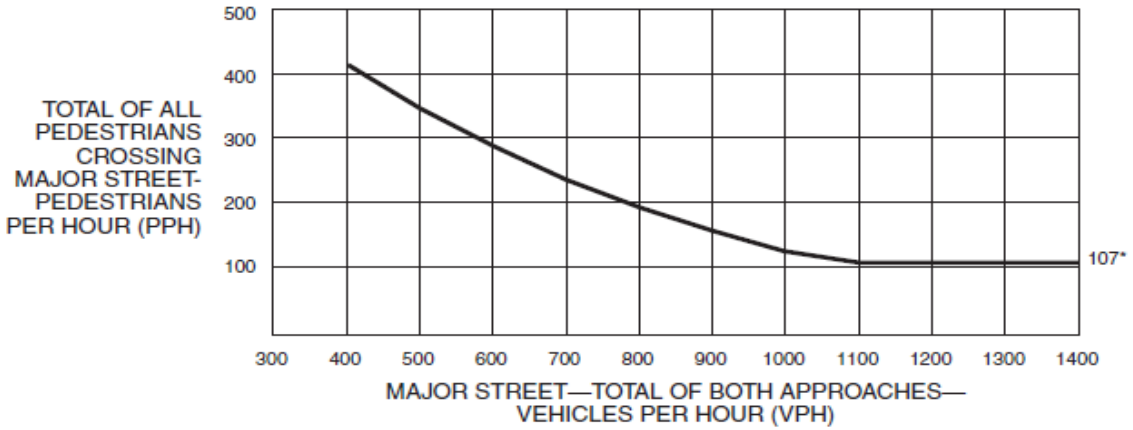
The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 90m (300ft), unless the proposed traffic constrol signal will not restrict the progressive movement of traffic.

If a traffic control signal is justified by both this signal warrant and a traffic engineering study, the traffic control signal shall be equipped with pedestrian signal heads conforming to the requirements set forth in Chapter 4E.

Pass/Fail: **Fail**

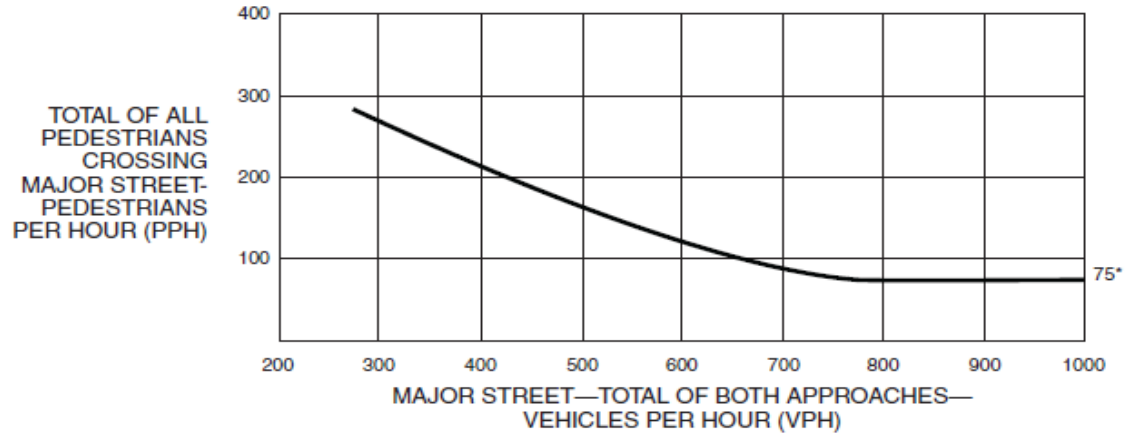
Time	Major Street Both Approaches	Ped crossing Major Street	Pass
6:00	436	4	Fail
7:00	741	5	Fail
8:00	767	7	Fail
9:00	599	3	Fail
10:00	622	4	Fail
11:00	563	6	Fail
12:00	709	7	Fail
1:00	607	4	Fail
2:00	541	6	Fail
3:00	675	6	Fail
4:00	787	4	Fail
5:00	1019	6	Fail
6:00	628	4	Fail
7:00	578	10	Fail

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

Warrant 5 - School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 students during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs, and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 90m (300ft), unless the proposed traffic control signal will not restrict the progressive movement of traffic.

Minimum Pedestrian Gap Equation

G = W/S + (N-1)xH + R

G = Minimum Gap Size (sec)
W = Crossing Width (ft)
S = Walking Speed (ft/s)
N = Number of Rows in 85th Percentile Group
2.0 H = Time Headway between Rows
3.0 Pedestrian Startup Time

Minimum Gap = #DIV/0! seconds

Pass/Fail: **Fail**

Discussion

Time	Ped crossing Major Street
6:00	9
7:00	8
8:00	13
9:00	8
10:00	10
11:00	4
12:00	11
1:00	3
2:00	1
3:00	8
4:00	5
5:00	1
6:00	5
7:00	4

This intersection is not considered a school walk route intersection. Therefore, the warrant is not satisfied.

Warrant 6 - Coordinated Signal System

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.

B. On a two-way street, 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 operation.

The coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 300m (1000ft)

Pass/Fail: **Fail**

No information based on progression is provided. Therefore, the status of the intersection with respect to this warrant cannot be determined.

Warrant 7 - Crash Experience

Pass/Fail: **Pass**

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. **Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and**

B. **Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and**

C. **For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major street and the higher-volume minor street**

The intersection did experience 5 or more crashes, of types susceptible to correction by a traffic signal, in a 12-month period, meets the 80 percent Columns for Warrant 1 A&B , and adequate trial of alternatives has been completed with no impact on crash frequency. The warrant is met.

Warrant 7 - Crash Experience
80 Percent for Warrant 1 Conditions A and B

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both directions of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent colums of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor-street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Pass/Fail: **Pass**

	Thru Lanes	Condition A Minimum	Condition B Minimum
Major Street: 95th St	2	480	720
Minor Street: Knoch Knolls Rd	1	120	60

Time	Major Street Both Approaches	Minor Street Higher Volume Approach	Condition A Pass?	Condition B Pass?
6:00	436	63	Fail	Fail
7:00	741	120	Fail	Pass
8:00	767	153	Pass	Pass
9:00	599	171	Pass	Fail
10:00	622	168	Pass	Fail
11:00	563	156	Pass	Fail
12:00	709	165	Pass	Fail
1:00	607	143	Pass	Fail
2:00	541	88	Fail	Fail
3:00	675	117	Fail	Fail
4:00	787	199	Pass	Pass
5:00	1019	321	Pass	Pass
6:00	628	84	Fail	Fail
7:00	578	74	Fail	Fail

Warrant 1: Eight-Hour Vehicular Volume
Condition A - Minimum Vehicular Volume

Table 4C -1: Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (both approaches)				Vehicles per hour on higher volume minor street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

a - Basic minimum hourly volume
b - Used for combination of Conditions A and B after adequate trial of other remedial measures
c - May be used when the major street exceeds 40mph or in an isolated community with a population of less than 10,000
d - May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major speed exceeds 40mph or in an isolated community of less than 10,000.

Warrant 1: Eight-Hour Vehicular Volume
Condition B - Interruption of Continuous Traffic

Table 4C -1: Condition A - Minimum Vehicular Volume

Number of lanes for		Vehicles per hour on major street (both				Vehicles per hour on higher volume minor			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

a - Basic minimum hourly volume
b - Used for combination of Conditions A and B after adequate trial of other remedial measures
c - May be used when the major street exceeds 40mph or in an isolated community with a population of less than 10,000
d - May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major speed exceeds 40mph or in

Summary of Collision Types by Year 95th Street and Knoch Knolls Road (2014 to 2016)						
	2014		2015		2016	
Collision Type	Number of Collision	% of Total Collisions	Number of Collision	% of Total Collisions	Number of Collision	% of Total Collisions
Pedestrian		0%		0%		0%
Pedalcyclist		0%		0%		0%
Train		0%		0%		0%
Animal		0%		0%		0%
Overturned		0%		0%		0%
Fixed Object		0%		0%		0%
Other Object		0%		0%		0%
Other non collision		0%		0%		0%
Parked vehicle		0%		0%		0%
Turning		0%	3	43%	5	63%
Rear End		0%	1	14%	2	25%
Sideswipe - same direction		0%		0%		0%
sideswipe - opposite		0%		0%		0%
Head on		0%		0%		0%
Angle	2	100%	3	43%	1	13%
Total	2	100%	7	100%	8	100%

Warrant 8 - Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volues, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a nonnormal buisness day (Saturday or Sunday)

A major route as used in this signal warrant shall have one or more of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for the through traffic flow; or

B. It appears as a major route on an unofficial plan, such as a major street plan in an urban area traffic and transportation study.

Pass/Fail: **Fail**

Both streets are not considered major streets within the city's Master Thoroughfare Plan. Therefore, the warrant cannot be met.

Warrant 9 - Intersection Near a Grade Crossing

The need for a traffic control signal hall be considered if an engineering study finds that both of the following criteria are met:

Pass/Fail: **Fail**

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and

B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.

The intersection was not able to meet both of the required criteria.

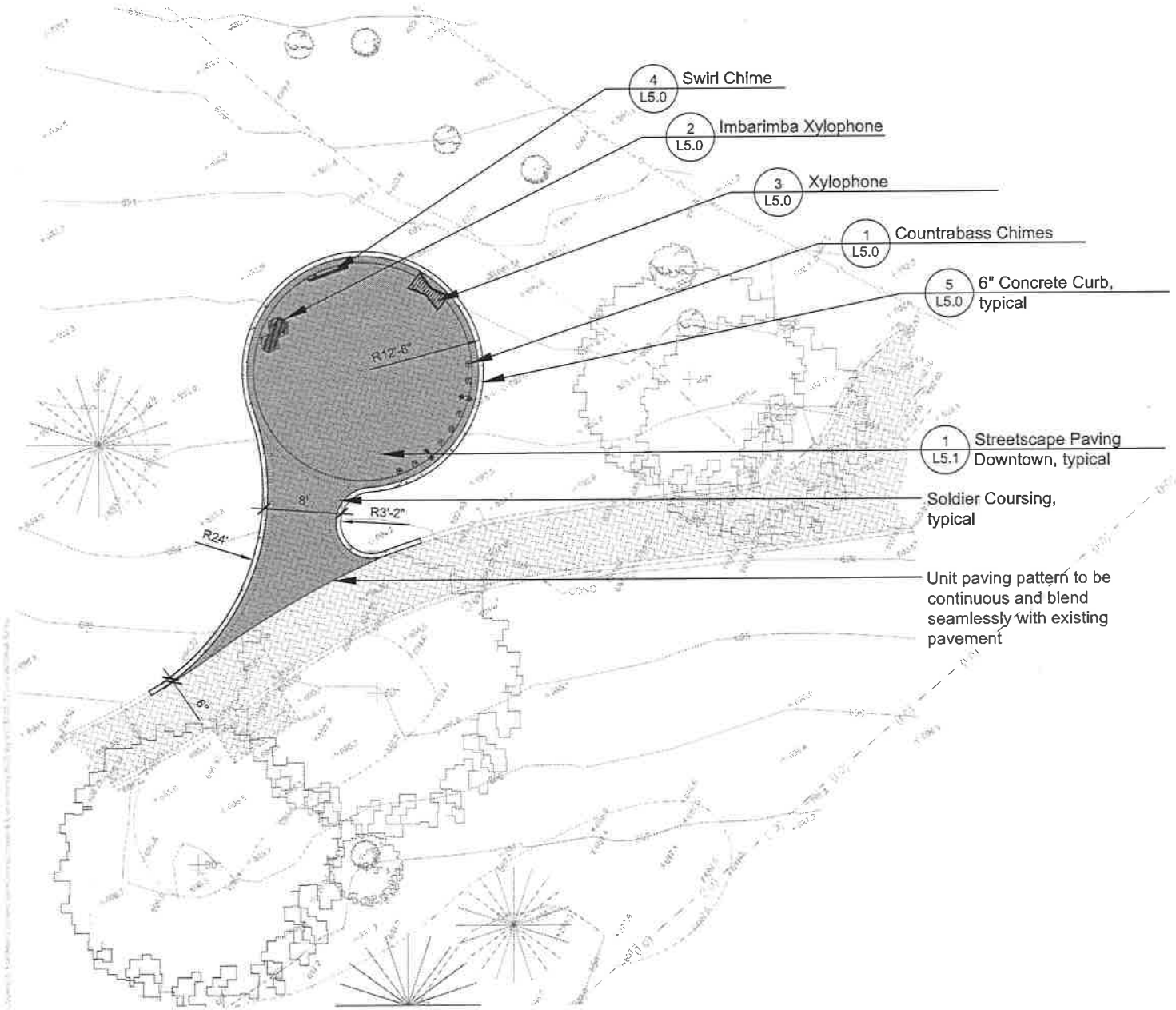
The following considerations apply when potting the traffic volume data on Figure 4C-9 or 4C-10:

A. Figure 4C-9 should be used if there is only one lane approaching the intersection at track crossing location and Figure 4C-10 should be used if there are two or more lanes approaching the intersection at the track crossing location.
B. After determining the actual distance, D, the curve for the distance D that is nearest to the actual distance D should be used.
C. If the rail traffic arrival times are unknown, the highest traffic volume hour of the day should be used.

Guidance:

The minor-street approach volume may be ultipled by up to three adjustment factors as provided below:

TABLE 4C-2: Adjustment Factor for Daily Frequency of Rail Traffic
TABLE 4C-3: Adjustment Factor for Percentage of High-Occupancy Buses
TABLE 4C-4: Adjustment Factor for Percentage of Tractor-Trailer Trucks



LAYOUT NOTES

1. Contractor responsible for field layout of all new improvements. Digital files of geometric information will be provided upon request in AutoCAD format. No additional payment will be made for adjustments necessary to construct the work as drawn.
2. Contractor responsible to coordinate work in order to obtain approval of all layout by Owners Representative prior to construction. No additional payment will be made to correct work if constructed incorrectly without pre-approval by Owners Representative.
3. Contractor responsible to maintain all layout stakes during construction. No additional payment will be made to replace layout stakes.
4. All dimensions from roadway are from Back of Curb unless otherwise noted.
5. All curves and radii to be smooth and not segmented.
6. Contractor to provide layout stakes every 10 feet minimum for large arcs where radius points are not accessible.
7. Adjustment to stake locations due to discrepancies between coordinates and dimensions is incidental to the contract. No additional payments will be made for this work.
8. Contractor responsible to take delivery, assemble and install all materials and furnishings per manufacturer's instructions.
9. Place control and expansion joints as shown on plans and details for all concrete curbs. Where joints are not shown, place control joints a maximum of 10 feet on center, expansion joints a maximum of 30 feet on center, and between all separate pours.
10. Contractor will maintain use zone requirements within soft surfacing; no use zone will overlap or be tangent unless noted.
11. Refer to specifications for additional conditions, standards and notes.

LAYOUT LEGEND

- Unit Paving, typical
- 6" Concrete Curb, typical
- Concrete Paving, typical

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PREPARED FOR
Rotary Club of Naperville

PROJECT
Harmony Park
Naperville Riverwalk

ISSUED
April 5, 2018

REVISIONS

No	Date	Issue
	2018.03.15	City Review
	2018.04.05	Revised per Park District Comments

CHECKED BY DSK

DRAWN BY SAS

SHEET TITLE
Layout and Materials Plan

SCALE IN FEET
1" = 10'
0' 5' 10' 30'

NORTH

SHEET NUMBER
L2.0