

City of Mt. Vernon, Iowa

Meeting:	Mt. Vernon City Council Meeting
Place:	Mt. Vernon City Hall, 213 First Street NW, Mt. Vernon, Iowa 52314
Date/Time:	June 18, 2018 – 6:30 PM
Web Page:	www.cityofmtvernon-ia.gov
Posted:	June 15, 2018

Mayor:	Jamie Hampton	City Administrator:	Chris Nosbisch
Mayor Pro-Tem:	Marty Christensen	City Attorney:	Robert Hatala
Councilperson:	Stephanie West	Assis. Admin/City Clerk:	Sue Ripke
Councilperson:	Scott Rose	Deputy City Clerk:	Marsha Dewell
Councilperson:	Tom Wieseler	Chief of Police:	Doug Shannon
Councilperson:	Eric Roudabush		

- A. Call to Order**
- B. Agenda Additions/Agenda Approval**
- C. Communications:**
 - 1. Unscheduled

If you wish to address the City Council on subjects pertaining to today's meeting agenda, please wait until that item on the agenda is reached. If you wish to address the City Council on an item not on the agenda, please approach the microphone and give your name and address for the public record before discussing your item. Each individual will be granted no more than five (5) minutes.

- D. Consent Agenda**

Note: These are routine items and will be enacted by one motion without separate discussion unless a Council Member requests separate consideration.

 - 1. Approval of City Council Minutes – June 4, 2018 Regular Council Meeting
 - 2. Approval of Liquor License – Heritage Days Celebration
 - 3. Approval of Firework's Permit – Heritage Days Celebration

- E. Public Hearing**
 - 1. None

- F. Ordinance Approval/Amendment**
 - 1. None

- G. Resolutions for Approval**
 - 1. Resolution #6-18-2018A: Approving the Final Plat of Hickory Acres Subdivision, Mt. Vernon, Iowa
 - 2. Resolution #6-18-2018B: Accepting Engagement Letter from Clifton Larson Allen for Professional Auditing Services for FY 2018 and Additional Services Performed by Brad Hauge

- H. Mayoral Proclamation**
 - 1. None

- I. Old Business**
 - 1. None

J. Motions for Approval

1. Consideration of Claims List – Motion to Approve
2. Discussion and Consideration of Hwy 30 and Hwy 1 Roundabout Engineering Study – Council Action as Needed

K. Reports to be Received/Filed

1. Mt. Vernon Police Report
2. Mt. Vernon Public Works Report
3. Mt. Vernon Parks and Rec Report
4. LMVAS Strategic Plan FY2019-FY2021

L. Discussion Items (No Action)

1. None

M. Reports of Mayor/Council/Administrator

1. Mayor's Report
2. Council Reports
3. Committee Reports
4. City Administrator's Report

N. Adjournment

Pursuant to §21.4(2) of the Code of Iowa, the City has the right to amend this agenda up until 24 hours before the posted meeting time.

If anyone with a disability would like to attend the meeting, please call City Hall at 895-8742 to arrange for accommodations.

D. Consent Agenda

The Mount Vernon City Council met June 5, 2018 at the Mount Vernon City Hall Council Chambers with the following members present: Roudabush, West, Wieseler, Christensen and Rose.

Call to Order. Mayor Jamie Hampton called the meeting to order at 6:30 p.m.

Agenda Additions/Agenda Approval. Motion made by Wieseler, seconded by Christensen to approve Agenda. Carried all.

Consent Agenda. Motion made by West to approve Consent Agenda, seconded by Rose. Carried all. Approval of City Council Minutes – May 21, 2018 Regular Council Meeting.

Resolutions for Approval

Resolution #6-4-2018A: Ordering Construction of Certain Public Improvements, Approving Preliminary Plans, and Fixing a Date for Hearing Thereon and Taking Bids Therefor for Improvements Known as the 1st Street W Culvert Replacement Project. Nobsch explained that the culvert is starting to fail and needs to be replaced. It has been filled with cold patch so the work needs to start sooner rather than later. There was concern voiced over the amount of detour traffic on Scoby Road. Motion made by Rose, seconded by Christensen to approve Resolution #6-4-2018A. Roll call all yes. Resolution approved.

Mayoral Proclamation

Proclamation Recognizing June 18-24 as National Pollinator Week in the City of Mt. Vernon, Iowa

Motions for Approval

Consideration of Claims List – Motion to Approve. Motion made by Wieseler, seconded by Rose to approve Claims List. Carried all.

ALL SECURE	SECURITY SYS MONITORING-POOL	120.00
BANKERS TRUST	LONG TERM PAYMENTS	785,077.50
BARNYARD SCREENPRINTING	SUPPLIES-P&REC	1,830.00
BARNYARD SCREENPRINTING	UNIFORMS-RUT/PW	72.00
BAUER BUILT	TIRE REPAIRS-PW	41.25
BIJOU MOVIE THEATER	ADVERTISING-P&REC,POOL	240.00
BOBCAT OF CEDAR RAPIDS	KUBOTA-RUT	28,866.87
BURGE, JOAN	CLEANING SERVICE-P&A	60.00
BURROUGHS, RICHARD	CEMETERY MAINT	3,205.00
CARQUEST OF LISBON	GENERATOR REPAIRS-SEW	27.03
CARRICO AQUATIC RESOURCES	CHLORINATOR PARTS-POOL	1,979.13
CARRICO AQUATIC RESOURCES	CHEMICALS-POOL	52.35
CENTRAL IA DISTRIBUTING	EQUIP,SUPPLIES-ALL DEPTS	754.30
CONSTRUCTION MATERIALS	ROAD MAINT-RUT	1,031.40
CONSTRUCTION MATERIALS INC	SUPPLIES-RUT	45.00
ELECTRONIC ENGINEERING	INFORMATION SYSTEMS-PW	419.40
GALLS	UNIFORMS-PD	17.19
GORDON LUMBER	BLDG SUPPLIES-RUT,P&REC	125.12
HASLEY, HEATHER	REFUND-P&REC	48.00
HAWKEYE FIRE & SAFETY	EQUIP REPAIR-PD	25.00
HAWKEYE READY MIX	MAIN BREAK-WAT	2,171.25
HAWKEYE READY MIX	UPTOWN ALLEY-RUT	352.50

HDC PRINTED PRODUCTS	LASER CHECKS-ALL DEPTS	272.02
HEPKER, ANDY	REFUND-P&REC	48.00
HINRICHS, NOLAN	REFEREE-PARKS & REC	120.00
IA LAW ENFORCEMENT ACADEMY	PRE-EMPLOYMENT TESTING-PD	200.00
IOWA PRISON INDUSTRIES	TRASH BAGS-RUT	277.97
IOWA SOLUTIONS	BUSINESS INTERNET SERVICES	370.00
KIEFER SWIM PRODUCTS	SUPPLIES-POOL	338.75
KINGS MATERIALS	BLOCKS-RUT	175.00
KROUL FARMS	BEAUTIFICATION	2,014.00
LINN CO PLANNING & DEVELOPMENT	BLDG PERMIT FEES/INSPECTIONS	737.00
LINN COOP OIL	FUEL-PW	932.56
MCNULTY, SEAN	REFUND-P&REC	30.00
MEDIACOM	PHONE/INTERNET-PD	256.18
MEDIACOM	PHONE/INTERNET-P&REC	325.24
MEDIACOM	PHONE/INTERNET-WAT	189.12
MEYER, RENAE	REFUND-P&REC	53.00
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-P&REC	640.00
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-P&REC,POOL	400.50
MOUNT VERNON, CITY OF	TRANSFERS	1,309,100.52
MSA PROFESSIONAL SERVICES	HWY 1/30 ROUNDABOUT ASSESSMENT	6,019.68
PAYROLL	CLAIMS	67,189.32
PAYROLL	CLAIMS	962.00
POSTMASTER	UTIL BILL POSTAGE-WAT,SEW,SW	372.40
PRACTICAL SECURITY SYSTEMS	SECURITY WINDOW/DOOR-PD	13,196.00
PRACTICAL SECURITY SYSTEMS	SECURITY WINDOW/DOOR-CITY HALL	1,000.00
RICKARD SIGN & DESIGN	ADVERTISING-P&REC	255.00
RICKARD SIGN & DESIGN	LETTERING/KUBOTA-RUT	70.00
SAM'S CLUB	SUPPLIES-POOL	532.29
SAM'S CLUB	SUPPLIES-POOL	343.45
SCHULTZ, MARK	REFUND-P&REC	48.00
SHANNON, DOUG	MILEAGE-PD	176.58
SIDERS, MATT	QUICK DRY/FIELDS-P&REC	67.35
STAPLES	SUPPLIES-POOL	69.19
TASC	ADMIN FEE-ALL DEPTS	94.83
THOMPSON, FRANCESCA	CLEANING SERVICE-P&A	60.00
TYLER TECHNOLOGIES	SOFTWARE SUPPORT-ALL DEPTS	5,370.45
US BANK	CREDIT CARD PURCHASES-ALL DEPTS	3,269.56
US CELLULAR	CELL PHONE-RUT,P&REC	154.77
VEENSTRA & KIMM	WWTP IMPROVEMENTS	6,950.00
VEENSTRA & KIMM	CITY ENGINEERING GENERAL	1,797.50
VEENSTRA & KIMM	SIDEWALK REPAIR PROGRAM	946.31
VEENSTRA & KIMM	5TH AVE/1ST ST W TRAFFIC SIGNAL	611.36
VOLKOV, ALEX	UNIFORM REIMBURSEMENT-WAT	82.95
WAPSI WASTE SERVICE	GB,RECY,LEAF-SW	24,129.64
WEBER, CARLY	REFUND-P&REC	48.00
WENDLING QUARRIES	ROCK-RUT	117.25
	TOTAL	2,276,974.03

Discussion and Consideration of Citywide Crack Sealing Bids – Kluesner Construction, Inc. – Council Action as Needed. Nobsch said this is the second year in a row that the City is trying to crack seal as many concrete streets in town as possible. This would crack seal approximately 30,605 linear feet at a cost of \$25,402.15. This number could fluctuate slightly upon further inspection. Public Works Director, Nick Nissen, explained that the streets to be done are prioritized by the condition they are in and the City is

doing this as part of a regular maintenance plan. Nobsisch explained that Kluesner Construction was the only bid received in part because there are not very many businesses that do this type of work, they are the most responsive in eastern Iowa and the City is comfortable with their work. Motion made by Rose to approve the bid from Kluesner Construction for crack sealing. Seconded by Wieseler. Carried all.

Discussion and Consideration of Citywide Sealcoat Program – LL Pelling Co. – Council Action as Needed. Nobsisch said they are going to try a different type of seal coat mix this year that is less flaky rock and less dust. This is in line with the priority list of roads that can take a seal coat. There are other priority roads that cannot take a seal coat. Motion made by West to accept the bid from LL Pelling for the seal coating of the streets and two alleys. Seconded by Roudabush. Carried all.

Discussion and Consideration of Police Department Computer Replacement – Council Action as Needed. The Police Dept has been experiencing computer failure issues and is needing to replace 3 of the 5 workstations. Motion made by Wieseler, seconded by West to approve the purchase of Police Department computer in the amount of \$4,782.03. Carried all.

Discussion and Consideration of Final Building Envelope – Lester Buresh Family Community Wellness Center – Council Action as Needed. Nobsisch provided Council with 3 scenarios for the final layout of the building. Fundraising has reached \$8,400,000. The goal is to take advantage of the floor above the locker rooms to have an indoor field turf dedicated area as referenced in the expanded footprint option. This gives more square footage of the building to be open when other areas are being rented and opens more revenue opportunities. Parks and Recreation Director, Matt Siders, said this and the rock climbing wall will be the two most unique spaces in the building and in his opinion, will be the most rented out space in the facility. This space will also save wear and tear on the regular gym floor. Nobsisch said adding the additional square footage sets the building apart from other facilities and the architect leading the project feels comfortable moving forward with this option. Siders said this option will also provide additional fitness space. Council was in agreement with this option and moving forward with the project.

Discussion and Consideration of Utility Box Purchase – Water/Sewer Department – Council Action as Needed. This would provide additional space for tools and supplies on the truck to save trips between the facility and job site. Motion made by Rose, seconded by Roudabush to approve the utility box purchase for the Water/Sewer Department. Carried all.

Discussion and Consideration of Possible Appointment of the Operator I Position – Public Works – Council Action as Needed. Public Works Director, Nick Nissen, said they went through interviews last week and found a candidate they are very happy with to fill the vacated position in the Public Works Department. Jacob See will bring valuable experience to the department.

Discussion Items (No Action)

Nature Park Trail. Since Council had the first discussion about this trail, Matt Siders and Dave Schechinger from V&K have met with property owners that would be affected. There were enough comments received from property owners that Nobsisch put this back on as a discussion item to allow them to have their questions answered by Siders and Schechinger while they are here. Christensen had previously voiced concern about building sidewalks in front of residences and said it made sense to him that rather than go in front of homeowners houses, instead run through the park and get to where the trail is supposed be on 4th Street SW, according to the adopted trails plan. This would help avoid the issue of creating a sidewalk in front of residences where there isn't a sidewalk and the resident related issues and differences of opinion. He feels that overall this option fits with the trails plan. Siders said with the disc golf course, there would be two holes that you would have to cross if the trail were placed there. To eliminate issues with this, the thought process was to not take it directly through to the 4th Street entrance but direct it to a different path.

One of the paths was the south edge of 3rd Street going all the way down and connecting to an existing sidewalk on a property. Christensen said when you do that it raises the tension around sidewalks in front of residences without sidewalks and he would prefer to avoid that. Siders said the residents were informed that a six foot trail was planned and the City would pay for it and maintain it. He also said there are several properties along the trail that will be affected by existing landscaping that the City will try to work with to accommodate. Nosbisch said if you do take the trail to 4th Street you still run into the issue of it coming out onto a street. The other issue on 4th Street is there is a substantial amount of landscaping that would need to be removed to accommodate a sidewalk on the south side of the street. Christensen proposes pricing out and consider the alternative of routing as close as possible to the property to the west that extends into the triangle that is the park.

Paul Reiman, 208 3rd Street SE, said they share a driveway with their neighbors and according to the plan, the trail would end right at their driveway entrance, which is the access road in the middle of the block. On his current sidewalk there are some sections that aren't level so he asked about what would happen to their sidewalk. He was told that they would be able to have that done at their own cost. Reiman said their property would basically be the gateway to the trail and everyone else to the east of them would be getting a new sidewalk or driveway whereas they would have to pay to make their sidewalk nice for people to get onto the trail. He is suggesting extending the entrance to A Avenue where there would be a natural entryway from the street instead of right in the middle of the block. They are not against a trail but have concerns about his property being the entrance.

The consensus of Council was to examine additional possibilities that would include an alternate route as far west as possible along the boundaries of the park that would also include a connection from 4th Street SE, as well as other route options. V&K will put together cost estimates and other alternatives to bring back to Council for review.

5th Ave and 1st St Intersection Plans. The State has granted the City's waiver for the ADA compliant sidewalk, which allows the City to complete the street light improvements without reconstructing the intersection, but we will monitor the patch that has been put in on the east side of the intersection. The project will actually be done somewhere around June of next year. The City's share of the project will be around \$71,200.

Annexation Plan. The next two discussion items are on Council's strategic goals list and Nosbisch is asking for clarification on how they wish to proceed. He said outside of where the interchange would be, he cautioned about annexation in general. We know that there will be about \$500,000 in costs to get services to the south side of where the bypass will be. Unless there is a large subdivision out there the individual farm with the farmstead doesn't bring much to the City at this point. The question to Council is, should we be concentrating less on annexation and more about pursuing a fringe area agreement in those areas affected by the bypass plan. Rose said to him, that is an annexation plan and would raise the level of education around annexation. West would like to call it an "expansion" plan as opposed to annexation. She is concerned about the perception around the word annexation and feels it is a threat to some people. Council agreed and felt that education was key.

Old Fire Station. Nosbisch said there are conflicting statements within the goal setting. One talks about the re-use of the building and the other one says re-use by a private individual or openly marketing this building to someone outside of the City. He said the building is used for a lot more currently than people understand; all of the squad cars are parked there and public works has equipment parked there as well. Other groups have also used the facility during downtown events. Once the wellness center is finished, some of these things can be moved there. He has been approached by people that have a fleeting interest and asked Council if he should be actively marketing the building. He has discussed the idea of using it as

a police station with Chief Shannon, which would be close to around \$1,200,000 for renovations. Christensen feels that this is a prime location for a public/private partnership that includes first floor commercial and residential above. This would add to the tax base and replaces a lot of the downtown buildings that have been lost in fires. He doesn't feel its best use is for some ancillary City functions. Rose agreed but said the reality is that we now need to figure out what to do with the items currently being stored there. Nosbisch clarified that the police vehicles are plugged in at night because of all of the electrical equipment in them. Part of the reason for moving them in there was to keep them inside and try and extend the life of the vehicle. Where public works is concerned, the whole reason for looking at purchasing property was to get everything inside a building and elongate its life. Nosbisch has had conversations with Chief Shannon about whether downtown is the best place for the Police Department. As far as safety goes, they should really be moved closer to existing Highway 30. If the Police Department is moved, City Hall is more than enough space for City administration for the next 20 years.

The consensus was to keep options open for private development/use of the building if a developer is interested and has a plan.

Reports of Mayor/Council/Administrator

Council Reports. Wieseler would like to get the rain barrel program started again. The Catholic Church parking lot is moving forward, which will affect parking in the area. West wanted to publically thank City employees and Nick Nissen for their contribution to the SE Linn Community Garden.

City Administrator's Report. Applications for the Associate Planner position are currently being reviewed.

As there was no further business to attend to the meeting adjourned the time being 8:41 p.m., June 4, 2018.

Respectfully submitted,
Marsha Dewell
Deputy Clerk

Marsha Dewell

From: Licensing@IowaABD.com
Sent: Thursday, June 07, 2018 2:34 AM
To: Marsha Dewell
Cc: Licensing@IowaABD.com
Subject: Liquor License Pending Dram Shop

The following application(s) is complete and awaiting dramshop insurance endorsement by the appropriate insurance carrier. After the insurance carrier has endorsed coverage, the application(s) will be submitted to the local authority for review.

License #	License Status	Business Name
	Pending Dram Shop	Heritage Days (100 Block of First Street West Mount Vernon Iowa, 52314)

Please do not respond to this email.

To check the status of your application follow these steps:

1. Click <https://elicensing.iowaabd.com>
2. Log in to your eLicensing account
3. After reading the 'Beginning April 1st' statement, click ok
4. Click the View Completed Applications link to see your status

Marsha Dewell

From: Licensing@IowaABD.com
Sent: Friday, June 08, 2018 2:34 AM
To: Marsha Dewell
Cc: Licensing@IowaABD.com
Subject: Liquor License Pending Dram Shop

The following application(s) is complete and awaiting dramshop insurance endorsement by the appropriate insurance carrier. After the insurance carrier has endorsed coverage, the application(s) will be submitted to the local authority for review.

License #	License Status	Business Name
	Pending	Dram Shop Heritage Days (Elliott Athletic Complex Mount Vernon Iowa, 52314)

Please do not respond to this email.

To check the status of your application follow these steps:

1. Click <https://elicensing.iowaabd.com>
2. Log in to your eLicensing account
3. After reading the 'Beginning April 1st' statement, click ok
4. Click the View Completed Applications link to see your status

APPLICATION TO SELL AND CONSUME ALCOHOL

1. Name of organization Mt. Vernon Heritage Days
2. Is the organization a 501(3)(c) corporation? Yes No
3. Detailed description of the event Heritage Days Festival
4. Exact location of event (attach a drawing) 100 Block of 1st Str. West
3 Elliott Athletic Complex
5. Date beer or liquor license approved. Attach license. (Names on license must match organization on line #1) 7-12-2018; 7-13-2018; 7-14-2018
6. Does the organization have Dram Shop insurance? Yes No
 - a. Amount of insurance \$ 1,000,000
 - b. Name of insured Mt Vernon Heritage Days Inc.
7. Does the organization have Liability Insurance? Yes No
 - a. Amount of insurance \$ 1,000,000
 - b. Name of insured Mt Vernon Heritage Days Inc.
 - c. Attach proof that City is additional insured under general liability
8. Amount of Deposit (determined by City Council; \$500 minimum) \$ —
9. Attach indemnity agreement (in form attached) signed by authorized representative of named organization.
10. Other conditions as determined by City Council. (Code Section _____).

11. This Application cannot be approved until after all conditions have been satisfied. In the event all conditions have not been satisfied, the event will not be authorized to proceed.

Date 6-12-18 Mount Vernon Heritage Days
(name of organization)
By Jennykaye [Signature], President
(name & title)
By _____
(name & title)

APPROVED on this ____ day of _____, 20__.

CITY OF MOUNT VERNON, IOWA

By _____
(Mayor)
By _____
(Clerk)

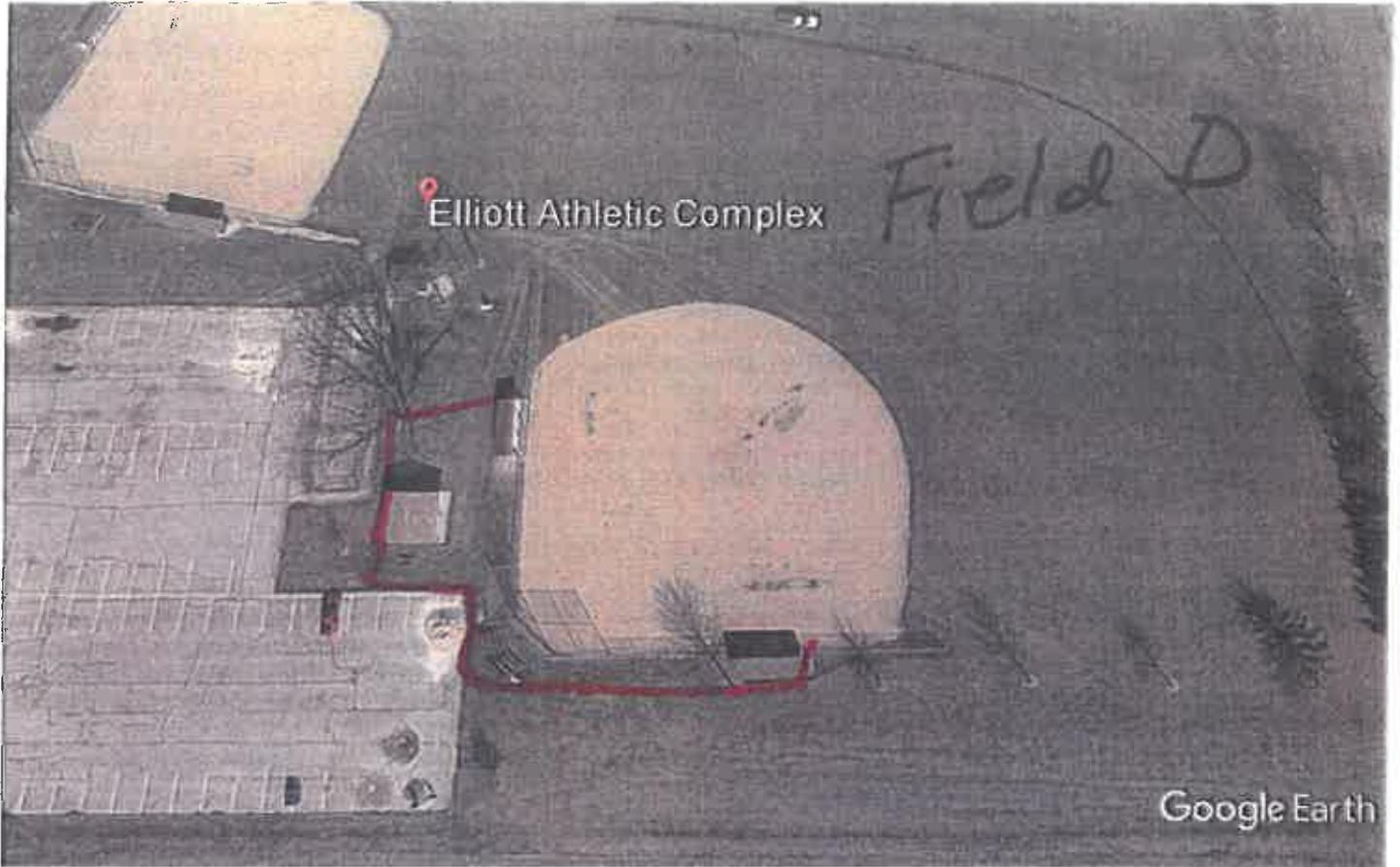
INDEMNITY AND HOLD HARMLESS AGREEMENT

Mt. Vernon Heritage Days (name of organization) agrees to fully and completely defend, indemnify and hold the City of Mount Vernon, Iowa, harmless from any claims, lawsuits, damages, attorney fees, defense costs and expenses, and any other fees, costs or expenses associated with the use of City property or facilities, for Heritage Days (name of event) to be held on July 13, 14th (date of event).

The Mt. Vernon Heritage Days (name of organization) agrees that its obligations under this Indemnity and Hold Harmless Agreement apply even when the claim, lawsuit or other action is based wholly or in part on the negligence of the City or its employees.

Dated 6/12/2018

Mount Vernon Heritage Days
(name of organization)
By Jennylyn [Signature] President
(name/title)

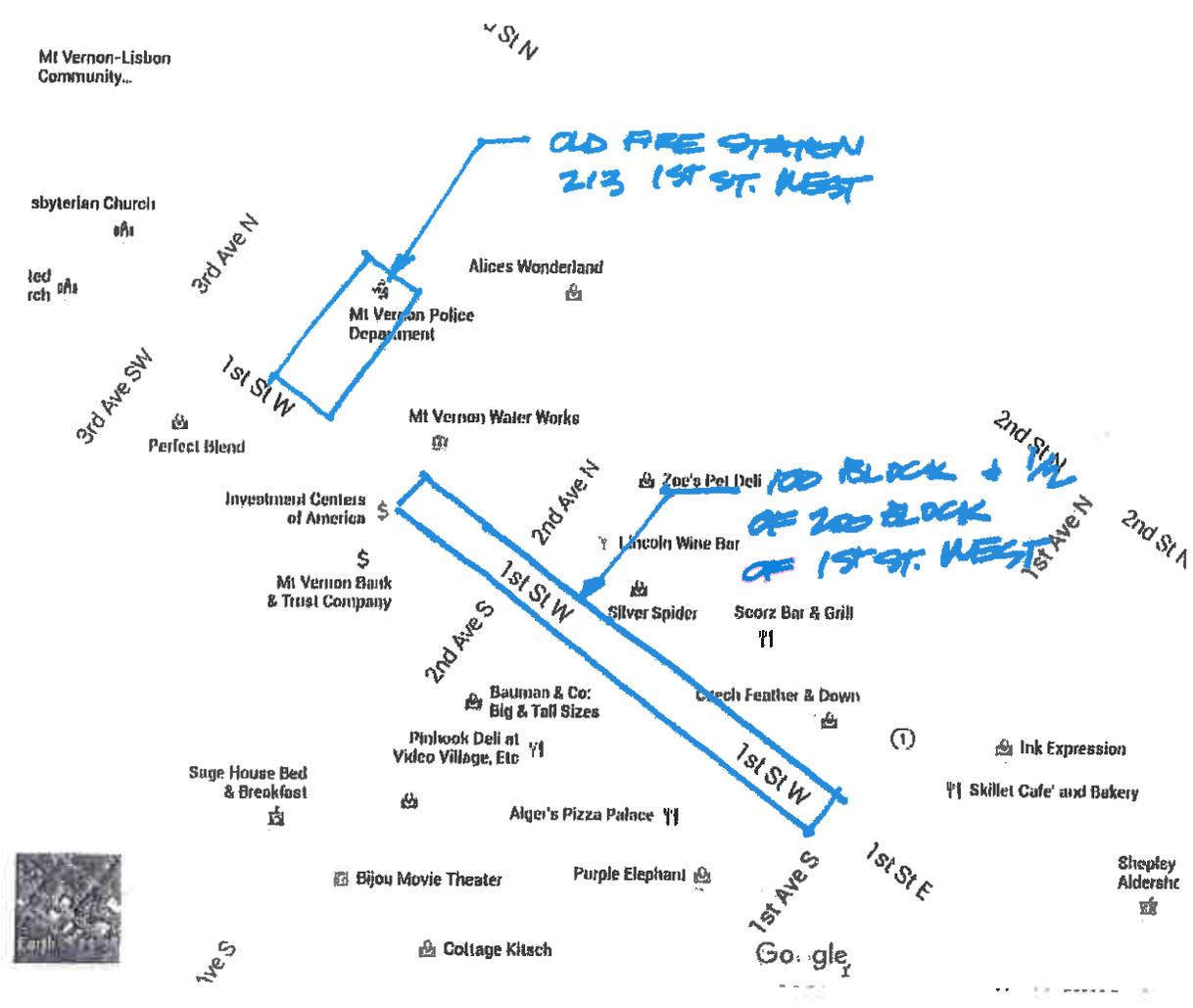


Google Earth

feet 200
meters 60



*Alcohol limited to pavilion / concession
area, spectator seating and dugouts.
Nothing on ball fields or parking lots*





CITY OF MOUNT VERNON

APPLICATION FOR FIREWORKS PERMITS

TO: City of Mount Vernon, 213 1st Street NW, Mount Vernon, Iowa 52314

Jerry Hampton

Applicant: Heritage Days Committee

Phone: 319-651-3439

Address: PO Box 73 Mt. Vernon, IA 52314

Date of Birth: _____

Sponsor: _____ Phone: _____

Address: _____

Date of Display: 7/12/2018

Start Time: dark Ending Time: _____

Location of Display: Kernoustic Golf Course

Operator: Monte Whitlick 3rd M Phone: _____

Address: 1806 4-170th Ave. Yarmouth, Ia 52160

Qualifications of the Operator (proof required)

- 1. _____ Fireworks Operator license from another state
- 2. Pyrotechnics Guild International, Inc. certification
- 3. Attached Other formal fireworks safety training. Please specify

In house company AFA ongoing training
Iowa State Fire School

Insurance Company: See Attached

Policy Amount: See Attached

Fire Prevention Measures: _____

I approve of the location and fire prevention measures for this Fireworks display:

Fire Chief (or Designee): [Signature] Fire Department: Mount Vernon Fire Department

I hereby affirm that I have read the MOUNT VERNON CITY ORDINANCE CHAPTER 41.11; that I understand the Ordinance terms; that no person shall handle or explode fireworks while under the influence of alcohol or drugs which could adversely affect judgment, movements, or stability; that no person will set up or explode fireworks who is not 18 years of age and qualified as set out above or who is not under the direct supervision of the Operator; that the Operator will conduct a thorough search for any unexploded fireworks or fuses; that any unexploded fireworks will be stored or disposed of in a safe manner; and that the Sponsor, Operator and I will follow its terms and the laws of the State of Iowa.

Further, I specifically agree to protect, defend, and hold the City of Mount Vernon, its officers and employees, and the Fire Chief who signs this application, harmless from any and all damages or claims for damages that might arise or accrue by reason of the granting of the permit for which I am applying.

[Signature]
Signature of Applicant

6/22/18
Date

This application was approved by the Mount Vernon City Council on the _____ day of _____, 20_____

By: _____
Chris Nosbisch, City Administrator

cc: Mount Vernon Police Department



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
4/17/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Britton Gallagher One Cleveland Center, Floor 30 1375 East 9th Street Cleveland OH 44114	CONTACT NAME: PHONE (A/C. No./Ext.): 216-658-7100		FAX (A/C. No.): 216-658-7101
	E-MAIL ADDRESS:		
INSURED J & M Displays, Inc. 18064 170th Avenue Yarmouth IA 52660	INSURER (S) AFFORDING COVERAGE		NAIC #
	INSURER A: Everest Indemnity Insurance Co.		10851
	INSURER B: Everest National Insurance Company		10120
	INSURER C: Maxum Indemnity Company		28743
	INSURER D: Axis Surplus Insurance Company		28620
	INSURER E: INSURER F:		

COVERAGES **CERTIFICATE NUMBER: 2012196607** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADD'L SUBR INSR	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	GENERAL LIABILITY			S18ML00060-181	1/15/2018	1/15/2019	EACH OCCURRENCE		
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person)	\$500,000	
	GEN'L AGGREGATE LIMIT APPLIES PER:							PERSONAL & ADV INJURY	\$
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC						GENERAL AGGREGATE	\$1,000,000	
								PRODUCTS - COMPROP AGG	\$2,000,000
									\$
B	AUTOMOBILE LIABILITY			S18CA00033-181	1/15/2018	1/15/2019	COMBINED SINGLE LIMIT (Ea accident)		
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person)	\$1,000,000	
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per accident)	\$	
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident)	\$	
									\$
C	UMBRELLA LIAB		<input checked="" type="checkbox"/>	EXC6028118-03	1/15/2018	1/15/2019	EACH OCCURRENCE		
	<input checked="" type="checkbox"/> EXCESS LIAB		<input type="checkbox"/>				AGGREGATE	\$5,000,000	
	<input type="checkbox"/> DED	<input type="checkbox"/> RETENTION \$						\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			N/A			WC STATUTORY LIMITS		
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/>					EL - EACH ACCIDENT	\$	
	If yes, describe under DESCRIPTION OF OPERATIONS below						EL - DISEASE - EA EMPLOYEE	\$	
							EL - DISEASE - POLICY LIMIT	\$	
D	Excess Liability			EAU791767	1/15/2018	1/15/2019	Each Occurrence		
							Aggregats	\$4,000,000	
							Total Excess Limits	\$9,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Additional insured extension of coverage is provided by above referenced General Liability policy where required by written agreement.
FIREWORKS DISPLAY DATE: JULY 12, 2018
RAIN DATE: JULY 13, 2018
LOCATION OF EVENT: BACK FAREWAY OF GOLF COURSE

ADD'L INSURED: THE CITY OF MT VERNON, IOWA, ITS EMPLOYEES, VOLUNTEERS, OFFICERS, ELECTED OFFICIALS, PARTNERS, See Attached...

CERTIFICATE HOLDER Mt. Vernon Heritage Days Inc. PO Box 73 Mt. Vernon IA 52314	CANCELLATION: SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: _____

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

AGENCY Britton Gallagher		NAMED INSURED J & M Displays, Inc. 18064 170th Avenue Yarmouth IA 52660	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 _____ FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

SUBSIDIARIES, DIVISIONS & AFFILIATES, EVENT SPONSORS & LANDOWNERS AS THEIR INTEREST MAY APPEAR IN RELATION TO THIS EVENT; MT VERNON HERITAGE DAYS INC. (SPONSOR); HILLCREST COUNTRY CLUB (PROPERTY OWNER).

IOWA STATE UNIVERSITY

Certificate of completion

MONTE WHITLOCK

attended the Firefighting course and program

68TH IOWA STATE FIRE SCHOOL
PYROTECHNICIAN TRAINING

June 17, 1992



George Carter

STATE FIRE SCHOOL BOARD MEMBER

J & M Displays, Inc.

Certificate of Completion

Hazardous Materials Training

The materials used are 49CFR Parts 100-185, APA Training Package, DOT Security Training Video and an exam.

Training included General Awareness, Safety, Function Specific and Security Awareness

Monte D. Whitlock

Date Completed: 3/1/09

Training Conducted by: *Monte D. Whitlock*

CERTIFICATE OF ATTENDANCE

Presented to

Marte Whitlock

This certificate recognizes that the above-named individual attended a seminar for trainers of the Shooters Safety Course for pyrotechnicians. It covered class conducts, presentation, administration of open book review questions, and answering class questions as to J & M Displays' preferred set up and firing methods.


James J. Oetken, CEO


Instructor

Performance of the holder of this certificate is beyond the control of J & M Displays, Inc. and this corporation makes no warranty as to the holder's future performance.

Hunterhicks Bull International, Inc.

MONTE WHITLOCK



has successfully completed a Display Fireworks Shooters Safety Certification Program. This program requires attendance at lectures and demonstrations, a passing score on a written examination and documented shooting experience.

3/21/98
Date:

Ed Varnasak

Ed Varnasak, FGI® Sec.-Treasurer

Performance by the holder of this certificate is beyond the control of the FGI and this organization makes no warranty as to the holder's future performance



DISPLAY INFORMATION

Please complete the following information:

Display Date: July 12, 2018 Rain Date: 7-13-18

Time of Display: aprox 9:30 pm

Name of Organization Purchasing Display: Mt. Vernon Heritage Days

Billing Address: PO Box 73

City, State, Zip: Mt. Vernon, IA. 52314

Telephone: 319-651-3439 Fax: _____ E-mail: heritagedaysmv@gmail.com

Name of Contact Person: Jennykaye Hampton

Contact Address: _____

City, State, Zip: _____

Telephone: _____ Fax: _____ E-mail: heritagedaysmv@gmail.com

Send Invoice to: _____

Billing Address: _____

City, State, Zip: _____

Telephone: _____ Fax: _____ E-mail: _____

OFFICE USE ONLY

J & M Fired Insurance Extension: YES or NO Customer Pick Up at _____ On Site Delivery

Delivery: Contact Delivery Name: Chad Anderson Telephone: 319-350-8709

Delivery Address: PALO BUNKER

Delivery County: Linn

Additional Contact Persons & Telephone Numbers: _____

Proposal # 3081 Final Show \$: 4,000.00

Bonuses: 8% Prepayment 15% Multiple Year Agreement _____ Pick Up _____

Sales Representative: Whitlock Customer PO Number: _____

O# _____ C# _____

<input type="checkbox"/> tax exempt certificate received	<input type="checkbox"/> Agreement received	<input type="checkbox"/> Full payment	<input type="checkbox"/> Down payment
<input type="checkbox"/> permit received	<input type="checkbox"/> IQ received	\$ _____	\$ _____
<input type="checkbox"/> ATF permit	<input type="checkbox"/> S/P _____	Date _____ Check# _____	Date _____ Check# _____

Exp. _____

FIREWORKS DISPLAY AGREEMENT

THIS AGREEMENT is made and entered into this 22 day of March, 2018, by and between J & M Displays, Inc., an Iowa corporation, having its principal place of business at Yarmouth, Iowa, hereinafter referred to as "Seller", and Mt. Vernon Heritage Days, hereinafter referred to as "Buyer".

Seller shall furnish to Buyer one (1) fireworks display, as per the \$4000.00 program submitted and accepted by the Buyer, and which by reference is made a part hereof as Exhibit "A". The display is to take place on the evening of July 12, 2018, 20 at approximately 9:30 pm, weather permitting.

IT IS FURTHER UNDERSTOOD AND AGREED BETWEEN THE PARTIES AS FOLLOWS:

1. Firing of Display (check one of the below options):

XXX Seller agrees to furnish all necessary fireworks display material and personnel for a fireworks display in accordance with the program approved by the parties. Seller agrees to comply with all local, state, and federal guidelines pertaining to the storing and displaying of fireworks.

 Buyer waives the services of Seller's technician. Buyer is a municipality or has a valid permit from the Bureau of Alcohol, Tobacco, Firearms & Explosives and will be firing the display. If Buyer shoots the display, proof of liability insurance is required as stated in paragraph number five (5), proof of auto insurance (if pyrotechnics will be transported), and proof of worker's compensation insurance coverage is required. Buyer agrees to comply with all local, state, and federal guidelines pertaining to the storing and displaying of fireworks.

2. Payment. The Buyer shall pay to the Seller (check one of the below options):

 the sum of \$ as a down payment upon execution of this Agreement. The balance of \$ shall be due and payable in full within fifteen (15) days after the date of the fireworks display. A service charge of one and one-half percent (1 ½%) per month shall be added to the unpaid balance if the account is not paid in full within fifteen (15) days from the date of the show. If this account remains unpaid and is turned over to a collection agency for non-payment, all fees incurred in collecting the balance will be at the Buyer's expense. All returned checks will be assessed a \$30.00 fee.

XXX \$ 4,000.00 in full by April 11, 2018 (70 days prior to the event date).
The Buyer will receive the 8% prepayment bonus product in this fireworks display.

\$ in full by (30 days prior to event date).
The Buyer will receive the 5% prepayment bonus product in this fireworks display.

3. Weather Delay/Cancellation. Buyers intending to postpone a display due to inclement weather should contact J&M Displays as soon as possible to keep postponement fees to a minimum.

The following postponement fees are applicable *only* if the display is re-scheduled in the same calendar year.

- * Displays postponed prior to being picked up at the magazine for delivery incur no postponement fee unless there are new costs associated with permit changes or display set-up has occurred prior to product delivery.
- * Displays postponed after they are in transit to the shoot site will be charged the full delivery fee.
- * Displays postponed after set-up by the shoot team will be charged delivery fee and 1.5 times the shoot fee for hand-fired displays and double the shoot fee for E-fired displays.
- * Display set-ups that are allowed to remain on site overnight after a postponement to the following day will incur a fee of eight-percent (8%) of the total display budget. This will cover 24-hour security watch of fireworks and additional labor hours of shoot crew.

Displays cancelled and NOT re-scheduled within the same calendar year will be charged thirty-percent (30%) of the total display budget. This fee will cover all labor associated with order processing, packing & shipping, display set-up if applicable and re-stocking fees.

** Displays cancelled due to circumstances beyond customers control, such as burn bans or other bans issued by the AHJ will be considered on a case by case basis.

4. **Rain Date.** Should inclement weather prevent the firing of the display on the date mentioned herein, the parties agree to a mutually convenient rain date of 7-13-18 or another date as agreed to by both parties. Once display set-up has begun, the determination to cancel the fireworks display because of inclement weather or unsafe weather conditions shall rest within the sole discretion of the AHJ, Seller, and the lead pyrotechnician.

5. **Insurance. (Check one of the below options):** .

XXX Seller agrees to provide, at its expense, general liability insurance coverage, in an amount not less than \$10,000,000, and within two (2) weeks prior to the date of the fireworks display, shall submit to the Buyer, if requested in writing, a certificate of insurance. All entities listed on the certificate of insurance will be deemed an additional insured. In the event of a claim by Buyer, the applicable deductible shall be paid by the Seller.

The Seller agrees to defend, indemnify and hold harmless the Buyer and its agents, and employees from and against all claims, costs, judgments, damages and expenses, including reasonable attorney fees that may or shall arise from the performance of the fireworks by the Buyer. The Buyer agrees to give the Seller prompt notice of any claims or demands and to cooperate with the Seller or its successors in interest or assigns, if any, in the defense of any such claims and/or demands.

 Buyer agrees to provide, at its expense, general liability insurance coverage with a rating by AM Best of A VIII or higher, in an amount not less than \$5,000,000, and within two (2) weeks prior to the date of the fireworks display, shall submit to the Seller a certificate of insurance. All entities listed on the certificate of insurance will be deemed an additional insured. Any charge incurred from the insurance provider for additional insurance after insurance application has been sent in, shall be the responsibility of the Buyer. In the event of a claim by Seller, the applicable deductible shall be paid by the Buyer.

The Buyer agrees to hold the Seller harmless and defend Seller from any and all claims brought against the Seller by employees or sponsors of the Buyer for any and all acts of the Buyer relating to the event for which the fireworks is performed.

6. **Buyer agrees to provide:**

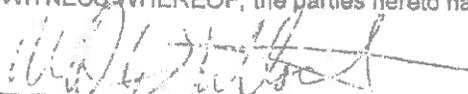
- (a) sufficient area for the display, including a minimum spectator set back as determined by Seller.
- (b) protection of the display area by roping off or similar facility.
- (c) adequate police protection to prevent spectators from entering display area.
- (d) dry, clean sand, if needed, for firing.
- (e) inspection and cleanup of fireworks debris in the fallout zone of the shoot site at first light the morning following the display for anything that may have been missed at the night search.
- (f) necessary local permits.

7. No representation of affirmation of fact, including but not limited to statement regarding capacity, suitability for use, or performance of equipment or products shall be, or deemed to be a warranty by the Seller for any purpose, nor give rise to any liability or obligation of the Seller whatsoever, except for acts of Seller's negligence as above stated.

8. It is further understood and agreed that nothing in this Agreement shall be construed or interpreted to mean a partnership. Both parties hereto being responsible for their separate and individual debts and obligations, and neither party shall be responsible for any agreements not stipulated in this Agreement.

9. The parties hereto do mutually and severally guarantee terms, conditions, and payments of this Agreement. This document shall be binding upon the parties, themselves, their heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

BY: 
J & M Displays, Inc.
SELLER

BY: 
BUYER

Please include the DISPLAY INFORMATION form with this Agreement so your order is processed accurately.

J & M Displays' Cancellation Policy

The following cancellation fees are applicable only if the show is re-scheduled in the same calendar year.

- Shows cancelled prior to being picked up at the bunker for delivery incur no cancellation fee.
- Shows cancelled after they are in transit to the shoot site will be charged the full delivery fee.
- Shows cancelled after set-up by the shoot team will be charged delivery fee and 1 ½ times the shoot fee.
- Show set-ups that are allowed to remain on site overnight after a postponement to the following day will not incur an additional shoot fee however other fees may apply such as:

Hotel and Food costs for overnight stay of non-local shoot teams.
Cost to maintain security of shoot site/fireworks overnight.

**** Shows cancelled and not re-scheduled within the same calendar year will be charged 50% of the total show budget. This fee will cover order processing, re-stocking, packing and shipping.**



**J&M Displays Proposal for:
Mt. Vernon Heritage Days
Mt. Vernon Heritage Days**

Opening

Multi-shell Barrage Units

Quantity	Item Name	Price	Total
1	Report with color w/ silver tail 100 shot	\$122.35	\$122.35
Category Shell Count: 100			\$122.35
Section Shell Count: 100			

Main Event

Multi-shell Barrage Units

Quantity	Item Name	Price	Total
1	Assorted effects 100 shot Z shape	\$202.60	\$202.60
Category Shell Count: 100			\$202.60

3 Inch Salutes

Quantity	Item Name	Price	Total
6	Dark salute (no Ti)	\$10.10	\$60.60
5	Titanium salute with rising whistle	\$10.10	\$50.50
Category Shell Count: 11			\$111.10

3 Inch Color Shells

Quantity	Item Name	Price	Total
1	Blue peony	\$10.90	\$10.90
1	Green peony	\$10.90	\$10.90
1	Orange peony	\$10.90	\$10.90
1	Pink Peony	\$10.90	\$10.90
1	Purple peony	\$10.90	\$10.90
1	Red and blue dahlia	\$10.90	\$10.90
1	Crossette assorted	\$20.80	\$20.80
1	Cycas assorted	\$20.80	\$20.80
1	Glittering gold to Emerald kamuro w/ strobe pistol	\$20.80	\$20.80
1	Glittering willow	\$20.80	\$20.80
1	Green flower wave ring with purple pistol	\$20.80	\$20.80
1	Kamuro chrysanthemum	\$20.80	\$20.80
1	Nishiki kamuro niagara falls	\$20.80	\$20.80
1	Reddish gamboge to purple chrys	\$20.80	\$20.80
1	Six Angle chrysanthemum	\$20.80	\$20.80
1	Spangle chrys	\$20.80	\$20.80
1	Strobe w/ ring assorted	\$20.80	\$20.80
1	Asst F of 20 diff J&M Brand Shells (HAND FIRE)	\$220.00	\$220.00
1	Asst M of 20 diff J&M Brand Shells (HAND FIRE)	\$220.00	\$220.00
Category Shell Count: 57			\$734.20



J&M Displays Proposal for: Mt. Vernon Heritage Days Mt. Vernon Heritage Days

Main Event

3 Inch Special Effect Shells

Quantity	Name	Ring Effect	Price	Total
1	Red strobe		\$28.60	\$28.60
1	Artillery (cylinder)		\$45.35	\$45.35
1	Blue stars and whistle		\$45.35	\$45.35
1	Blue with silver serpents (cylinder)		\$45.35	\$45.35
1	Charcoal glittering crossette		\$45.35	\$45.35
1	Green with silver serpents		\$45.35	\$45.35
1	Green with whistles		\$45.35	\$45.35
1	Orange and yellow with reports		\$45.35	\$45.35
1	Red and blue with artillery		\$45.35	\$45.35
1	Silver wasp and diamond screamer		\$45.35	\$45.35
1	Silver whirl to reports		\$45.35	\$45.35
1	Tourbillion with reports		\$45.35	\$45.35
Category Shell Count: 12				\$527.45

4 Inch Color Shells

Quantity	Name	Ring Effect	Price	Total
3	Peony assorted		\$20.80	\$62.40
1	Colored Bees assorted		\$35.20	\$35.20
1	Crackling willow		\$35.20	\$35.20
1	Crossette assorted		\$35.20	\$35.20
1	Silver & Red cross ring with crackling pistol	Gold tail	\$35.20	\$35.20
1	Six angle chrysanthemum	Gold tail	\$35.20	\$35.20
1	Tracer assorted	Gold tail	\$35.20	\$35.20
1	Asst K Of 20 diff J&M Brand shells (HAND FIRE)		\$395.00	\$395.00
1	Asst Q of 10 Patriotic pairs of 4" J&M Brand shells (HAND FIRE)		\$395.00	\$395.00
1	Asst T of 20 different J&M Brand Shells (HAND FIRE)	mixed tails	\$395.00	\$395.00
Category Shell Count: 89				\$1,458.60

4 Inch Special Effect shells

Quantity	Name	Ring Effect	Price	Total
1	Golden waterfall		\$44.25	\$44.25
1	Green falling leaves		\$44.25	\$44.25
2	Happy face pattern		\$44.25	\$88.50
1	Lemon strobe		\$44.25	\$44.25
1	Red strobe		\$44.25	\$44.25
1	Artillery		\$59.40	\$59.40
1	Green with whistles		\$59.40	\$59.40
Category Shell Count: 8				\$384.30
Section Shell Count: 257				

Finales

4 Inch Color Shells

Quantity	Name	Ring Effect	Price	Total
3	Glitter crossette	flower crown tail	\$36.20	\$105.60
Category Shell Count: 3				\$105.60
Section Shell Count: 3				



**J&M Displays Proposal for:
Mt. Vernon Heritage Days
Mt. Vernon Heritage Days**

Miscellaneous

Ignition Items

Quantity	Name	Using Effect	Price	Total
6	Fireworks port fire 30 minute Spikeless Waxed		\$0.01	\$0.06
10	Igniter 4 meter leads		\$2.20	\$22.00
1	5 shot finale chain with e-match connectors		\$3.90	\$3.90
1	15' Bundle of quickmatch		\$5.25	\$5.25
Category Shell Count: 0				\$31.21
Section Shell Count: 0				

8% Free for Early Payment

2.5 Inch Finales

Quantity	Name	Using Effect	Price	Total
2	Mixed color peony 10 Shot finale chain		\$90.10	\$180.20
Category Shell Count: 20				\$180.20

3 Inch Color Shells

Quantity	Name	Using Effect	Price	Total
1	Brocade crown ring with silver strobe pistol	Crackling tail	\$20.80	\$20.80
1	Color to crackling ring with crackling pistols assorted		\$20.80	\$20.80
Category Shell Count: 2				\$221.80

4 Inch Color Shells

Quantity	Name	Using Effect	Price	Total
1	Blue peony with red pistol with silver crown ring	Silver tail	\$35.20	\$35.20
Category Shell Count: 1				\$257.00
Section Shell Count: 23				

15% Free for Multiple Year Agreement

2.5 Inch Finales

Quantity	Name	Using Effect	Price	Total
3	Mixed color peony 10 Shot finale chain		\$90.10	\$270.30
Category Shell Count: 30				\$270.30

3 Inch Finales

Quantity	Name	Using Effect	Price	Total
1	Color and report 10 Shot finale chain	silver tail	\$130.65	\$130.65
Category Shell Count: 10				\$400.95



**J&M Displays Proposal for:
Mt. Vernon Heritage Days
Mt. Vernon Heritage Days**

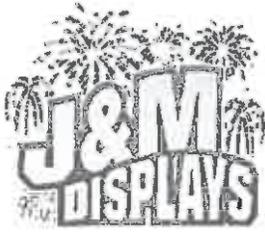
15% Free for Multiple Year Agreement

4 Inch Color Shells

Quantity	Name	Firing Effect	Price	Total
1	Glittering gold to Ruby kamuro w/strobe pistol		\$35.20	\$35.20
Category Shell Count: 1				\$436.15

4 Inch Special Effect shells

Quantity	Name	Firing Effect	Price	Total
1	Nishiki kamuro to red strobe w/red strobe pistol		\$44.25	\$44.25
Category Shell Count: 1				\$480.40
Section Shell Count: 42				



J&M Displays Proposal for: Mt. Vernon Heritage Days Mt. Vernon Heritage Days

This proposal includes an extension of our \$10,000,000.00 spectator liability insurance, and workers compensation on our shoot team.

Fireworks Price:	\$3,677.41	Total Shot Count:	425
Discount:	\$627.41	Packing Check:	96
Subtotal Fireworks:	\$3,050.00	Date of Display:	07/12/18
Sales Tax:		Customer Number:	10680
Local Sales Tax:			
Insurance Processing:	\$420.00		
License and Permit:			
Shoot Fee:	\$370.00		
Delivery:	\$160.00		
Musical Firing:			
Shoot Cost:			
Barge/Pontoon Fee:			
Total Price of Show:	\$4,000.00		

Summary of Free Items Added to Your Show See Previous Pages for a Listing of Free Items

Free Items are Based on the \$3,050.00 Fireworks Subtotal

\$257.00	8% Free for Early Payment
\$480.40	15% Free for Multiple Year Agreement
\$737.40	Total Free

Total Value of Show is \$5,364.81. Your Price is \$4,000.00

Please Note the Following Comments:

The data in this proposal is confidential, and is to be accorded confidential treatment and shall not be disclosed other than to the official representative of the organization listed on the cover, and only then when in the evaluation of this proposal. Any reproduction of the contents of this proposal, whether in whole or in part, is expressly forbidden. J&M Displays, Inc. requests that all information be safeguarded from release pursuant to any request under the Freedom of Information Law of this state or any other state or jurisdiction; as it may cause competitive disadvantage to our company. The enclosed concepts and materials are the sole and exclusive property of J&M Displays, Inc. We reserve the right to make substitutions of equal or greater value. Prices and specifications are subject to change without notice. For choreographed displays the quantity and sizes of product may change based on the music selected; however, the dollar value of the product will remain the same.

G. Resolutions for Approval

AGENDA ITEM # G – 1

**AGENDA INFORMATION
MT. VERNON CITY COUNCIL COMMUNICATION**

DATE:	June 18, 2018
AGENDA ITEM:	Resolution – Hickory Acres
ACTION:	Motion

SYNOPSIS: The planning and zoning commission voted to approve the final plat of Hickory Acres subdivision at their Wednesday, June 13, 2018 meeting. Attached is a copy of the plat, sidewalk waiver requests, percolation results and corresponding emails from Linn County Health, and the proposed covenants.

BUDGET ITEM: N/A

RESPONSIBLE DEPARTMENT: P&Z

MAYOR/COUNCIL ACTION: Motion

ATTACHMENTS: Resolution and Supporting Documents

PREPARED BY: Chris Nosbisch

DATE PREPARED: 6/18/18

RESOLUTION # 6-18-2018A

**RESOLUTION APPROVING THE FINAL PLAT OF HICKORY ACRES SUBDIVISION,
MT. VERNON, IOWA**

WHEREAS, the Hickory Acres preliminary plat was approved by the City Council on April 2, 2018, and

WHEREAS, there have been no significant changes made between the preliminary plat and final plat, and

WHEREAS, the Mt. Vernon Planning and Zoning Commission voted to unanimously approve the final plat of Hickory Acres Subdivision along with supporting documents;

NOW, THEREFORE, BE IT RESOLVED: That the City Council does hereby approve the Final Plat of Hickory Acres Subdivision as described and shown in Exhibit "A" attached hereto and made a part thereof by reference.

APPROVED and ADOPTED this 18th day of June, 2018.

Jamie Hampton, Mayor

ATTEST:

Sue Ripke, Asst. Administrator/City Clerk

Prepared by: Gregory J. Seyfar
Bradley & Riley PC

P.O. Box 2804
Cedar Rapids, IA 52406-2804

(319) 363-0101
FAX (319) 363-9824

**PROTECTIVE AND RESTRICTIVE COVENANTS
HICKORY ACRES FIRST ADDITION IN THE CITY OF MT. VERNON,
LINN COUNTY, IOWA**

PELLEY HICKORY ACRES, LLC ("Developer"), being the record titleholder of the following described real estate, to wit:

THAT PART OF THE NE ¼ OF SECTION 15-82-5, LINN COUNTY, IOWA DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE SOUTH LINE OF SAID NE ¼, SAID LINE BEING ALSO THE EAST-WEST CENTERLINE OF SAID SECTION 15, AND 902.68 FEET WEST OF THE SE CORNER OF SAID NE ¼; THENCE NORTH 0° 10' 12" EAST 619.4 FEET; THENCE NORTH 48° 22' 33" WEST 120.2 FEET; THENCE NORTH 89° 58' 11" WEST 938.24 FEET; THENCE NORTH 46° 54' 46" EAST 243.9 FEET; THENCE NORTH 54° 52' 52" EAST 198.21 FEET; THENCE NORTH 35° 59' 07" EAST 369.6 FEET; THENCE NORTH 58° 37' 56" EAST 170.36 FEET TO THE SW-LY RIGHT OF WAY LINE OF COUNTY ROAD; THENCE SOUTH 52° 44' 49" EAST ALONG SAID RIGHT OF WAY LINE 191.62 FEET; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE SOUTH 58° 57' 35" EAST 606.33 FEET MORE OR LESS TO THE EAST LINE OF THE WEST 45.52 RODS OF THE SE ¼ NE ¼ OF SAID SECTION 15; THENCE S-LY ALONG SAID EAST LINE TO A POINT ON THE SOUTH LINE OF SAID NE ¼ WHICH IS 566.37 FEET WEST OF THE SAID SE CORNER; THENCE WEST ALONG SAID SOUTH LINE 336.31 FEET TO THE POINT OF BEGINNING, AND ALSO

THAT PART OF THE NE ¼ SE ¼ OF SECTION 15-82-5, LINN COUNTY, IOWA DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE NORTH LINE OF SAID NE ¼ SE ¼ AND 902.68 FEET WEST OF THE NE CORNER OF SAID NE ¼ SE ¼ THIS POINT BEING THE SAME AS THAT FIRST DESCRIBED ABOVE; THENCE SOUTH 0° 10' 12" WEST 80.2 FEET; THENCE SOUTH 86° 25' 25" EAST 507.52 FEET; THENCE SOUTH 0° 56' 35" WEST 1,206.97 FEET MORE OR LESS TO THE SOUTH LINE OF SAID NE ¼ SE ¼; THENCE E-LY ALONG SAID SOUTH LINE 407 FEET MORE OR LESS TO THE EAST LINE OF SAID NE ¼ SE ¼; THENCE N-LY ALONG SAID EAST LINE TO THE NE CORNER OF SAID NE ¼ SE ¼ ; THENCE WEST ON SAID NORTH LINE 902.68 FEET TO POINT OF BEGINNING, AND ALSO

THE WEST 1/10 OF NW ¼ SW ¼ OF SECTION 14-82-5, LINN COUNTY, IOWA

**TO BE PLATTED AND KNOWN AS LOTS 1 TO 4, HICKORY ACRES FIRST ADDITION IN
THE CITY OF MT. VERNON, LINN COUNTY, IOWA**

In order to establish and maintain the residential character of each of said lots, does hereby covenant and agree with persons who purchase and/or own said lots or any one of the several of said lots, or acquire any right, title or interest in and to said lots of any nature whatsoever, that the purchase, ownership, sale and use of all of the lots in Hickory Acres First Addition in the City of Mt. Vernon, Linn County, Iowa ("the Addition") are restricted and subject to the following Covenants:

1. **Residential Only.** Each lot in the Addition shall be used solely as a single family residential lot. Any additional buildings and structures on the lot shall not exceed 1,200 square feet in area and may be no more

than one and one-half stories in height. No commercial uses shall be permitted. Each dwelling must be equipped with full plumbing and sanitation facilities to comply with all City, County and State sanitation requirements.

2. **Building Plans.** One set of plans and specifications showing the nature, kind, shape, heights, elevation, materials, and location of the proposed dwelling or other building shall be submitted to the Developer for its approval. No work or construction shall be commenced until approval is issued by the Developer in writing.

3. **Construction Timing.** All exterior construction and lot grading and landscaping shall be completed within one year of the date of the commencement of construction. Building materials not required for continuation of construction shall be removed from the construction site within 2 months from the date of commencement of construction. Lot owners are personally responsible and liable for any and all damages to the road systems or improvements of Developer caused by contractors or subcontractors performing work upon their property or on their behalf.

4. **Fence and Fencing.** All fence and fencing shall be approved by the Developer.

5. **No Towers.** No towers, poles, or similar structures not attached to a dwelling are permitted. All dish (satellite) antennas must be located in back of the dwelling or the line extending in either direction from the back of the dwelling or the line extending in either direction from the back of the dwelling to the side lot lines. This restriction shall not apply to flag poles, light poles, or poles used for basketball backboards.

6. **No Additional Subdivision.** No lot in the Addition shall be further subdivided except a part of a lot may be added to an adjoining lot for additional yard area.

7. **No Temporary Structure.** No trailer, mobile home, basement, tent, shack, garage, barn or other structure in the Addition shall be used at any time as a residence, whether temporary or permanent, nor shall any residence of a temporary character be permitted with the exception of backyard tenting and short-term visitor camping.

8. **Parking and Storage of Vehicles.** There shall be no continual parking or storage of a motor vehicle, trailer, camper, boat or any equipment, movable or stationary, on the roads and drives designated in the final plat of this Addition. No motor vehicles, trailer, camper, boat or other equipment shall be parked or stored upon any lot on a continual basis except in an enclosed structure.

9. **Livestock and Pets.** Except as to Lot 4, no livestock, cows, pigs or poultry shall be kept on any lot. Recognized household pets may be kept in reasonable numbers as pets for the pleasure and use of the occupants and not for any commercial use or purpose. Any pets permitted out of doors or on any lot must be contained in an enclosure, secured on a leash, or under voice control. All enclosures must be located in back of the dwelling or the line extending in either direction from the front of the dwelling to the side lot lines. All pet enclosures must be kept well maintained, clean and free of offensive odors. Any pet making a continual disturbance violates these restrictive Covenants and shall be considered a nuisance and is subject to removal by Developer. All enclosures for housing pets outside, such as kennels or barns, must be approved in writing by Developer prior to construction.

10. **Lot Maintenance.** Owners of each lot shall keep the premises mowed, free of weeds and debris. Owners must mow the grass areas of each lot as necessary during the growing season. Debris shall include discarded or seldom-used boards or other types of building material and inoperative mechanical equipment. Un-mowed lots will be mowed at the direction of the Developer with costs assessed to the owner. No noxious or offensive uses of said lots shall be permitted nor shall anything be done thereon which would reasonably be considered any annoyance or nuisance.

11. **No Shooting Firearms.** Shooting or discharge of firearms is not permitted in the Addition.

12. **Garbage Pickup.** Garbage or other trash to be collected by trash pickup or refuse collectors shall be set out either the night before, or on the morning of pickup in areas designated. Any boxes, cans, or containers used for this purpose shall be removed not later than the morning after the pickup. Garbage and trash containers shall be kept out of sight between pickups.

13. **Signs.** No signs, except private street signs installed by Developer, of any kind will be permitted, except temporary signs that may be used for the sale of a dwelling or lot, garage sales, porch sales, or yard sales, or the like. Size of these signs shall not exceed two feet by two feet and shall not be erected higher than four feet off the ground. Said signs shall be removed immediately after the event with the exception of real estate "For Sale" signs which shall be removed within two weeks after the property has been sold or the property has been withdrawn from sale. This section shall not apply to the Developer.

14. **Well, Septic System and Storm Water Management.** Each lot shall have individual well and septic systems installed per Linn County regulations and individual storm water management (rain garden or other system) per the Iowa Storm Water Manual.

15. **Private Driveway Easement.** The real estate is subject to easements as shown on the final plat of the Addition. Developer hereby declares and establishes the Private Driveway Easement designated as Amera's Way (Private Drive), as shown on the final plat of the Addition, as a perpetual, non-exclusive easement for pedestrian and vehicular ingress and egress into and out of the Addition for the use and benefit of all present and future owners of the lots and their contractors and invitees. The easement hereby established is coupled with an interest and shall run with the title to the lots and benefit and be binding upon the owners of the lots. The Developer shall have sole authority to construct, reconstruct, maintain and repair the Private Driveway within the Private Driveway Easement and shall have use of the Private Driveway Easement reserved on the lots for such construction and repair. No improvements other than turf shall be located by an owner within the Private Driveway Easement without prior written approval of Developer.

The owner of each lot within the Addition shall pay to the Developer a one-fourth share of the cost of maintenance, repair and snow removal for the Private Driveway. Developer shall bill each owner periodically its one-fourth share of costs, and such sums shall be due and payable within thirty (30) days of receipt of such billing. Any sums not timely paid by an owner of a lot shall bear interest at the rate of ten percent (10%) per annum and shall be collectable by all lawful means. Such unpaid accounts, together with interest thereon, shall also constitute a lien against the owner's lot (or lots, as applicable).

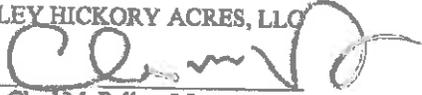
16. **Minor Variances Waiver.** Where a building or other improvement has been or is about to be erected on any lot in such a manner as to constitute a minor violation of, or variance from the covenants or restrictions herein set forth, the Developer shall have the right to waive or release the variance or minor violation.

The provisions of these Restrictive Covenants represent the Developer's best effort to define common standards and requirements to assure the quality and desirability of the lots for the intended uses as set forth herein. It must be acknowledged, however, that consideration should be given to owners with unique projects or peculiar circumstances pertaining to individual lots. Therefore, the Developer may waive any particular provision or provisions of these covenants in the exercise of its best judgment and giving due consideration to results intended to be achieved by the covenant(s) so waived. In order to be effective, such waiver must be in writing and executed by the Developer hereunder. Developer shall not be liable to any person, including owners, for either granting or refusing to grant any waiver or release pursuant to this paragraph.

17. **Amendment.** These Covenants may be amended at any time by the signature vote of not less than 75% of the then owners of lots.

Dated this 25th day of April, 2018

PELLEY HICKORY ACRES, LLC

By: 
Chad M. Pelley, Manager

STATE OF IOWA)
) ss:
COUNTY OF LINN)

This instrument was acknowledged before me on the 25 day of April, 2018, by Chad M. Pelley, as the Manager of PELLEY HICKORY ACRES, LLC.




Notary Public in and for the State of Iowa

Susan K. Forinash

From: Chad Pelley <cpelley@ahmanncompanies.com>
Sent: Tuesday, May 15, 2018 2:56 PM
To: Susan K. Forinash
Subject: FW: Wofl Farm/Mt.Vernon

Chad M. Pelley, P.E.

Ahmann Companies

Ahmann Design, Inc.

Fusion Architects, Inc.

Compass Commercial Services, LLC

Pivot Real Estate

1950 Boyson Road

Hiawatha, IA 52233

cpelley@ahmanncompanies.com

Office: 319-393-9004

Direct: 319-200-8110

Cell: 319-899-8460

Fax: 319-395-7933

From: Dodge, Shane [mailto:Shane.Dodge@linncounty.org]
Sent: Tuesday, October 03, 2017 11:50 AM
To: Chad Pelley <cpelley@ahmanncompanies.com>
Subject: RE: Wofl Farm/Mt.Vernon

Chad,

Thank you for sending your soil percolation results for the proposed development. I'm not familiar with this area so I can't match the percolation results with the NRCS soils data. However, it appears that onsite treatment systems are a viable option. Assuming there is no issue with elevated groundwater or bedrock, traditional soil absorption fields will be our first choice for treatment technology. The design rate will be approximately 0.5 gal/ft²/day for the fields. If we run into issues siting absorption systems, then I'm confident we can identify sand filters or alternative systems (i.e. coco, peat & textile) to service the residential homes.

Let me know if you have any questions.

Shane

Shane Dodge | Air & Water Quality Supervisor

Linn County Public Health

501 13th Street, NW

Cedar Rapids, Iowa 52405-3700

319-892-6015 | 319-892-6099 (fax)



Public Health
Protect. Promote. Prevent.
Linn County, Iowa



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From: Chad Pelley [mailto:cpelley@ahmanncompanies.com]
Sent: Tuesday, September 26, 2017 9:18 AM
To: Dodge, Shane <Shane.Dodge@linncounty.org>
Subject: Wofl Farm/Mt.Vernon

Shane,

As a follow up to our recent phone conversations, I am sending an excel spreadsheet with my perc test findings. I dug 8 random holes near where I anticipate the proposed homes to be constructed. I realize that the homebuilders/owners will need to complete perc tests when they have sited their homes, per Linn County ordinances but the test holes give a reasonable representation of the site conditions. Based on the results, it appears that we will be well within the ranges required for a standard leach field system. Would you please write me a letter (email is fine) with your opinion of the systems, based on the information I have provided that I can give to the City engineer? If you have any questions, feel free to reach out. Thanks.



Linn County Auditor
Linn County, Iowa

Joel D. Miller, Auditor
Rebecca Shoop, First Deputy

County Auditor's Certificate

Approval of Subdivision Plat Name by Linn County Auditor

Date: May 16th, 2018

The Linn County Auditor's Office has reviewed the final plat name of:

Hickory Acres First Addition
in the City of Mount Vernon, Linn County, Iowa

and has determined that it is a succinct and unique name for the subdivision contained herein, pursuant to Iowa Code 8354.6(2) and 8354.11(6). The subdivision name or title is approved.

Signed:

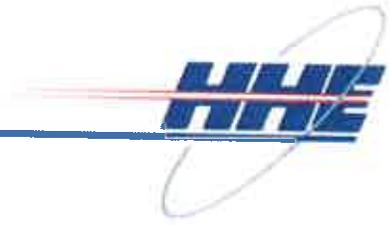
Joel D. Miller by Rebecca Shoop, Deputy
Joel D Miller
Linn County Auditor

linncountyauditor.org

Public Service Center
935 Second Street Southwest
Cedar Rapids, Iowa 52404-2100


auditor@linncounty.org
Phone 319.892.5300
fax 319.892.5359

HALL & HALL ENGINEERS, INC.



May 17, 2018

Chris Nosbisch
City Administrator
City of Mt Vernon
213 First Street NW
Mt Vernon IA 52314

RE: Final Plat – Hickory Acres First Addition - Sidewalk Deferment Request

Dear Chris:

We are requesting deferment of sidewalk installation at the proposed lots at Hickory Acres First Addition. The deferment request is for the sidewalk adjacent to Country Club Drive SE.

The request is being made due to the existing rural cross section and lack of future plans for public improvements along Country Club Drive SW. Based on the existing terrain, the proposed sidewalk installation would not allow a roadways drainage ditch to remain. And to the unique nature of this property ad lack of pedestrian system in the area, we respectfully request a deferment. With any future roadway improvements, it is likely the sidewalk would need to be removed and replaced if installed at this time.

Thank you for your consideration. If you have any questions or comments, please contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Susan Fornash".

Susan Fornash
Hall & Hall Engineers, Inc.

Copy: Dave Schechinger, Veenstra & Kimm, Inc.

AGENDA ITEM # G – 2

**AGENDA INFORMATION
MT. VERNON CITY COUNCIL COMMUNICATION**

DATE:	June 18, 2018
AGENDA ITEM:	Resolution – Audit Engagement Letter
ACTION:	Motion

SYNOPSIS: After reducing their fee by \$900 last year, Clifton Larson Allen has proposed a small increase of \$650. The services for Brad Hauge will also increase slightly this year by \$225-500, depending on the complexity of the year. Clifton Allen Larson's fee will be \$15,900, while Mr. Hauge's fee will not exceed \$6,825. This represents an overall increase of \$725 this year. Staff has been happy with the services of both entities and recommends approval of the engagement letters.

BUDGET ITEM: Budgeted Expense

RESPONSIBLE DEPARTMENT: City Administrator

MAYOR/COUNCIL ACTION: Motion

ATTACHMENTS: Resolution and Engagement Letters

PREPARED BY: Chris Nosbisch

DATE PREPARED: 6/18/18

RESOLUTION #6-18-2018B

A Resolution accepting engagement letter from Clifton Larson Allen for professional auditing services for FY2018 and addition of other services to be performed by Brad Hauge, not included in Clifton Larson Allen base audit proposal.

Motion made by _____, seconded by _____ to _____
Resolution #6-18-2018B.

Resolution #6-18-2018B. _____ on June 18, 2018, by the following roll call vote:

YES:

NO:

ABSTAIN:

ABSENT:

MOUNT VERNON CITY COUNCIL
MOUNT VERNON, IOWA

Jamie A. Hampton, Mayor

ATTEST:

Sue Ripke
Asst. Administrator/City Clerk



CliftonLarsonAllen LLP
600 3rd Avenue SE, Suite 300
Cedar Rapids, IA 52401
319-363-2697 | fax 319-363-1746
CLAconnect.com

May 16, 2018

Mayor and City Council Members
City of Mount Vernon
213 First Street West
Mt. Vernon, IA 52314

Dear Ladies and Gentlemen:

We are pleased to confirm our understanding of the terms and objectives of our engagement and the nature and limitations of the audit and nonaudit services CliftonLarsonAllen LLP ("CLA," "we," "us," and "our") will provide for City of Mount Vernon ("you," "your," or "the entity") for the year ended June 30, 2018.

Adam Pulley is responsible for the performance of the audit engagement.

Audit services

We will audit the cash basis financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information, which collectively comprise the basic financial statements of City of Mount Vernon, as of and for the year ended June 30, 2018, and the related notes to the financial statements.

We will also evaluate and report on the presentation of the supplementary information accompanying the financial statements in relation to the financial statements as a whole.

The information accompanying the financial statements will not be subjected to the auditing procedures applied in our audit of the financial statements and our auditors' report will not provide an opinion or any assurance on that information.

Nonaudit services

We will also provide the following nonaudit services:

- Preparation of your financial statements and related notes.
- Preparation of adjusting journal entries.

Audit objectives

The objective of our audit is the expression of opinions about whether your basic financial statements are fairly presented, in all material respects, in conformity with the cash basis of accounting (a special purpose framework), which is a basis of accounting other than accounting principles generally accepted in the United States of America (U.S. GAAP). Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America (U.S. GAAS) and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and will include tests of your accounting records and other procedures we consider necessary to enable us to express such opinions. We will also perform procedures to enable us to express an opinion on whether the supplementary information

accompanying the financial statements is fairly stated, in all material respects, in relation to the financial statements as a whole.

We will issue a written report upon completion of our audit of your financial statements. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If circumstances occur related to the condition of your records, the availability of sufficient, appropriate audit evidence, or the existence of a significant risk of material misstatement of the financial statements caused by error, fraudulent financial reporting, or misappropriation of assets, which in our professional judgment prevent us from completing the audit or forming opinions on the financial statements, we retain the right to take any course of action permitted by professional standards, including declining to express opinions or issue a report, or withdrawing from the engagement.

We will also provide a report (which does not include an opinion) on internal control related to the financial statements and on compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements, as required by *Government Auditing Standards*. The report on internal control over financial reporting and on compliance and other matters will include a paragraph that states (1) that the purpose of the report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance, and (2) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The paragraph will also state that the report is not suitable for any other purpose. If during our audit we become aware that the entity is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit conducted in accordance with U.S. GAAS and the standards for financial audits contained in *Government Auditing Standards* may not satisfy the relevant legal, regulatory, or contractual requirements.

As part of our audit, we will also perform procedures for testing compliance guidelines in the city per the compliance guide published by the Iowa Auditor of the State.

Auditor responsibilities, procedures, and limitations

We will conduct our audit in accordance with U.S. GAAS and the standards for financial audits contained in *Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements as a whole are free from material misstatement, whether due to fraud or error. An audit involves performing procedures to obtain sufficient appropriate audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

There is an unavoidable risk, because of the inherent limitations of an audit, together with the inherent limitations of internal control, that some material misstatements may not be detected, even though the audit is properly planned and performed in accordance with U.S. GAAS and *Government Auditing Standards*. Because we

will not perform a detailed examination of all transactions, material misstatements, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity, may not be detected. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management and those charged with governance of any material errors, fraudulent financial reporting, or misappropriation of assets that come to our attention. We will also inform the appropriate level of management and those charged with governance of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention.

In making our risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting fraud or errors that are material to the financial statements and to preventing and detecting misstatements resulting from noncompliance with provisions of laws, regulations, contracts, and grant agreements that have a material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*. An audit is not designed to provide assurance on internal control or to identify deficiencies, significant deficiencies, or material weaknesses in internal control. However, we will communicate to you in writing significant deficiencies or material weaknesses in internal control relevant to the audit of the basic financial statements that we identify during the audit that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the entity's compliance with the provisions of laws, regulations, contracts, and grant agreements that have a material effect on the financial statements. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

We will include in our report on internal control over financial reporting and compliance relevant information about any fraud; noncompliance with provisions of laws, regulations, contracts, or grant agreements; or abuse that may have occurred that are required to be communicated under *Government Auditing Standards*.

Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Management responsibilities

Our audit will be conducted on the basis that you (management and, when appropriate, those charged with governance) acknowledge and understand that you have certain responsibilities that are fundamental to the conduct of an audit.

You are responsible for the preparation and fair presentation of the financial statements in accordance with the cash basis of accounting. Management's responsibilities include the selection and application of accounting principles; recording and reflecting all transactions in the financial statements; determining the reasonableness of significant accounting estimates included in the financial statements; adjusting the financial statements to correct material misstatements; and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for including all informative disclosures that are appropriate for the cash basis of accounting. Those disclosures will include (a) a description of the cash basis of accounting, including a summary of significant accounting policies, and how the cash basis of accounting differs from U.S. GAAP; (b) informative disclosures similar to those required by U.S. GAAP; and (c) additional disclosures beyond those specifically required that may be necessary for the financial statements to achieve fair presentation.

You are responsible for the design, implementation, and maintenance of effective internal control, including evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. You are responsible for the design, implementation, and maintenance of internal controls to prevent and detect fraud; assessing the risk that the financial statements may be materially misstated as a result of fraud; and for informing us about all known or suspected fraud affecting the entity involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for implementing systems designed to achieve compliance with applicable laws and regulations and the provisions of contracts and grant agreements; identifying and ensuring that the entity complies with applicable laws, regulations, contracts, and grant agreements; and informing us of all instances of identified or suspected noncompliance whose effects on the financial statements should be considered. You are responsible for taking timely and appropriate steps to remedy any fraud; noncompliance with provisions of laws, regulations, contracts, or grant agreements; or abuse that we may report.

You are responsible for ensuring that management is reliable and for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, and other matters, and for the accuracy and completeness of that information, and for ensuring the information is reliable and properly reported; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence. You agree to inform us of events occurring or facts discovered subsequent to the date of the financial statements that may affect the financial statements.

Management is responsible for the preparation of the supplementary information in accordance with the cash basis of accounting. You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon or make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon. You agree to provide us written representations related to the presentation of the supplementary information.

Management is responsible for providing us with a written confirmation concerning representations made by you and your staff to us in connection with the audit and the presentation of the basic financial statements. During our engagement, we will request information and explanations from you regarding, among other matters, the entity's activities, internal control, future plans, specific transactions, and accounting systems and procedures. The procedures we will perform during our engagement and the conclusions we reach as a basis for our report will be heavily influenced by the representations that we receive in the representation letter and otherwise from you. Accordingly, inaccurate, incomplete, or false representations could cause us to expend unnecessary effort or could cause a material fraud or error to go undetected by our procedures. In view of the foregoing, you agree that we shall not be responsible for any misstatements in the entity's financial statements that we may fail to detect as a result of misrepresentations made to us by you.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the "Audit objectives" section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other engagements or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions for the report, and for the timing and format for providing that information.

Responsibilities and limitations related to nonaudit services

For all nonaudit services we may provide to you, management agrees to assume all management responsibilities; oversee the services by designating an individual, preferably within senior management, who possesses suitable skill, knowledge, and/or experience to understand and oversee the services; evaluate the adequacy and results of the services; and accept responsibility for the results of the services.

The responsibilities and limitations related to the nonaudit services performed as part of this engagement are as follows:

- We will prepare a draft of your financial statements and related notes. Since the preparation and fair presentation of the financial statements is your responsibility, you will be required to acknowledge in the representation letter our assistance with preparation of the financial statements and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for those financial statements. You have a responsibility to be in a position in fact and appearance to make an informed judgment on those financial statements.

- We will propose adjusting journal entries as needed. You will be required to review and approve those entries and to understand the nature of the changes and their impact on the financial statements.

These nonaudit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*.

Use of financial statements

The financial statements and our report thereon are for management's use. If you intend to reproduce and publish the financial statements and our report thereon, they must be reproduced in their entirety. Inclusion of the audited financial statements in a document, such as an annual report or an offering document, should be done only with our prior approval of the document. You are responsible to provide us the opportunity to review such documents before issuance.

If the parties (i.e., you and CLA) agree that CLA will not be involved with your official statements related to municipal securities filings or other offering documents, we will require that any official statements or other offering documents issued by you with which we are not involved clearly indicate that CLA is not involved with the contents of such documents. Such disclosure should read as follows:

CliftonLarsonAllen LLP, our independent auditor, has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. CliftonLarsonAllen LLP also has not performed any procedures relating to this offering document.

Should you decide to include or incorporate by reference these financial statements and our auditors' report(s) thereon in a future private placement or other offering of equity or debt securities, you agree that we are under no obligation to re-issue our report or provide consent for the use of our report in such a registration or offering document. We will determine, at our sole discretion, whether we will re-issue our report or provide consent for the use of our report only after we have performed the procedures we consider necessary in the circumstances. If we decide to re-issue our report or consent to the use of our report, we will be required to perform certain procedures including, but not limited to, (a) reading other information incorporated by reference in the registration statement or other offering document and (b) subsequent event procedures. These procedures will be considered an engagement separate and distinct from our audit engagement, and we will bill you separately. If we decide to re-issue our report or consent to the use of our report, you agree that we will be included on each distribution of draft offering materials and we will receive a complete set of final documents. If we decide not to re-issue our report or decide to withhold our consent to the use of our report, you may be required to engage another firm to audit periods covered by our audit reports, and that firm will likely bill you for its services. While the successor auditor may request access to our workpapers for those periods, we are under no obligation to permit such access.

With regard to the electronic dissemination of audited financial statements, including financial statements published electronically on your website or submitted on a regulator website, you understand that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in those sites or to consider the consistency of other information in the electronic site with the original document.

We may issue preliminary draft financial statements to you for your review. Any preliminary draft financial statements should not be relied on or distributed.

Engagement administration and other matters

We expect to begin our final fieldwork on August 13, 2018. The completion and issuance of the financial statements will be by October 31, 2018, based on cooperation and assistance of personnel in providing all necessary information to complete the audit in a timely manner.

We understand that your employees will prepare all confirmations, account analyses, and audit schedules we request and will locate any documents or invoices selected by us for testing. A list of information we expect to need for our audit and the dates required will be provided in a separate communication.

We will provide copies of our reports to the entity; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

We are available to perform additional procedures with regard to fraud detection and prevention, at your request, as a separate engagement, subject to completion of our normal engagement acceptance procedures. The terms and fees of such an engagement would be documented in a separate engagement letter.

The audit documentation for this engagement is the sole and exclusive property of CLA and constitutes confidential and proprietary information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to a Regulator, Cognizant or Oversight Agency for Audit, or Pass-through Entity, or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of CLA personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of seven years after the report release date or for any additional period requested by the Regulator, Cognizant or Oversight Agency for Audit, or Pass-through Entity. If we are aware that a federal awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

Except as permitted by the "Consent" section of this agreement, CLA will not disclose any confidential, proprietary, or privileged information of the entity to any persons without the authorization of entity management or unless required by law. This confidentiality provision does not prohibit us from disclosing your information to one or more of our affiliated companies in order to provide services that you have requested from us or from any such affiliated company. Any such affiliated company shall be subject to the same restrictions on the use and disclosure of your information as apply to us.

Professional standards require us to be independent with respect to you in the performance of these services. Any discussion that you have with our personnel regarding potential employment with you could impair our independence with respect to this engagement. Therefore, we request that you inform us prior to any such discussions so that we can implement appropriate safeguards to maintain our independence and objectivity. Further, any employment offers to any staff members working on this engagement without our prior knowledge may require substantial additional procedures to ensure our independence. You will be responsible for any additional costs incurred to perform these procedures.

Our relationship with you is limited to that described in this letter. As such, you understand and agree that we are acting solely as independent accountants. We are not acting in any way as a fiduciary or assuming any fiduciary responsibilities for you. We are not responsible for the preparation of any report to any governmental agency, or any other form, return, or report or for providing advice or any other service not specifically recited in this letter.

Our engagement and responsibility end on delivery of our signed report. Any additional services that might be requested will be a separate, new engagement. The terms and conditions of that new engagement will be governed by a new, specific engagement letter for that service.

Government Auditing Standards require that we make our most recent external peer review report publicly available. The report is posted on our website at www.CLAconnect.com/Aboutus/.

Mediation

Any disagreement, controversy, or claim ("Dispute") that may arise out of any aspect of our services or relationship with you, including this engagement, shall be submitted to non-binding mediation by written notice ("Mediation Notice") to the other party. In mediation, we will work with you to resolve any differences voluntarily with the aid of an impartial mediator.

The mediation will be conducted as specified by the mediator and agreed upon by the parties. The parties agree to discuss their differences in good faith and to attempt, with the assistance of the mediator, to reach an amicable resolution of the Dispute.

Each party will bear its own costs in the mediation. The fees and expenses of the mediator will be shared equally by the parties.

Any Dispute will be governed by the laws of the state of Minnesota, without giving effect to choice of law principles.

Time limitation

The nature of our services makes it difficult, with the passage of time, to gather and present evidence that fully and fairly establishes the facts underlying any Dispute that may arise between the parties. The parties agree that, notwithstanding any statute or law of limitations that might otherwise apply to a Dispute, including one arising out of this agreement or the services performed under this agreement, for breach of contract or fiduciary duty, tort, fraud, misrepresentation or any other cause of action or remedy, any action or legal proceeding by you against us must be commenced within twenty-four (24) months ("Limitation Period") after the date when we deliver our final audit report under this agreement to you, regardless of whether we do other services for

you relating to the audit report, or you shall be forever barred from commencing a lawsuit or obtaining any legal or equitable relief or recovery.

The Limitation Period applies and begins to run even if you have not suffered any damage or loss, or have not become aware of the existence or possible existence of a Dispute.

Fees

Our fees for these services will be based on the time involved and the degree of responsibility and skills required, plus expenses including internal and administrative charges. Based on our preliminary estimates, the fee for the engagement should approximate \$15,900 (fee does not include implementation of GASB75 for other post-employment benefits). The fee estimate is based on anticipated cooperation from your personnel and their assistance with preparing confirmations and requested schedules. If the requested items are not available on the dates required or are not accurate, the estimated fee for services will likely be higher. If unexpected circumstances require significant additional time, we will advise you before undertaking work that would require a substantial increase in the fee estimate. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes 30 days or more overdue and will not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed even if we have not issued our reports. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket expenditures through the date of termination.

Unanticipated services

We do not anticipate encountering the need to perform additional services beyond those described in this letter. Below are listings of services considered to be outside the scope of our engagement. If any such service needs to be completed before the audit can proceed in an efficient manner, we will determine whether we can provide the service and maintain our independence. If appropriate, we will notify you and provide a fair and reasonable price for providing the service. We will bill you for the service at periodic dates after the additional service has been performed.

Bookkeeping services

Bookkeeping services are not audit services. Bookkeeping services include the following activities:

- Preparation of a trial balance
- Account reconciliations
- Bank statement reconciliations
- Analyzing transactions for proper recording
- Processing immaterial adjustments through the financial statements
- Adjusting the financial statements for new activities and new disclosures

Additional work resulting from unanticipated changes in your organization or accounting records

If your organization undergoes significant changes in key personnel, accounting systems, and/or internal control, we are required to update our audit documentation and audit plan. The following are examples of situations that will require additional audit work:

- Revising documentation of your internal control for changes resulting from your implementation of new information systems
- Deterioration in the quality of the entity's accounting records during the current-year engagement in comparison to the prior-year engagement
- Significant new accounting issues
- Significant changes in your volume of business
- Mergers, acquisitions, or other business combinations
- New or unusual transactions
- Changes in audit scope or requirements resulting from changes in your activities
- Erroneous or incomplete accounting records
- Evidence of material weaknesses or significant deficiencies in internal control
- Substantial increases in the number or significance of problem loans
- Regulatory examination matters
- Implementation or adoption of new or existing accounting, reporting, regulatory, or tax requirements
- New financial statement disclosures

Changes in engagement timing and assistance by your personnel

The fee estimate is based on anticipated cooperation from your personnel and their assistance with timely preparation of confirmations and requested schedules. If the requested items are not available on the dates required or are not accurate, we will advise management. Additional time and costs may be necessary because of such unanticipated delays. Examples of situations that may cause our estimated fee to increase include:

- Significant delays in responding to our requests for information such as reconciling variances or providing requested supporting documentation (e.g., invoices, contracts, and other documents)
- Rescheduling our fieldwork

- Schedule disruption caused by litigation, financial challenges (going concern), loan covenants (waivers), etc.
- Identifying a significant number of proposed audit adjustments
- Schedules prepared by your personnel that do not reconcile to the general ledger
- Numerous revisions to information and schedules provided by your personnel
- Restating financial statements for accounting errors in the prior year
- Lack of availability of entity personnel during audit fieldwork

Changes in accounting and audit standards

Standard setters and regulators continue to evaluate and modify standards. Such changes may result in new or revised financial reporting and disclosure requirements or expand the nature, timing, and scope of the activities we are required to perform. To the extent that the amount of time required to provide the services described in the letter increases due to such changes, our fee may need to be adjusted. We will discuss such circumstances with you prior to performing the additional work.

Other fees

You also agree to compensate us for any time and expenses, including time and expenses of legal counsel, we may incur in responding to discovery requests or participating as a witness or otherwise in any legal, regulatory, or other proceedings that we are asked to respond to on your behalf.

Finance charges and collection expenses

You agree that if any statement is not paid within 30 days from its billing date, the unpaid balance shall accrue interest at the monthly rate of one and one-quarter percent (1.25%), which is an annual percentage rate of 15%. In the event that any collection action is required to collect unpaid balances due us, reasonable attorney fees and expenses shall be recoverable.

Consent

Consent to use financial information

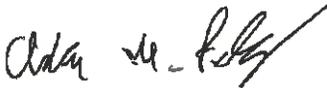
Annually, we assemble a variety of benchmarking analyses using client data obtained through our audit and other engagements. Some of this benchmarking information is published and released publicly. However, the information that we obtain is confidential, as required by the AICPA Code of Professional Conduct. Your acceptance of this engagement letter will serve as your consent to use of City of Mount Vernon's information in these cost comparison, performance indicator, and/or benchmarking reports.

Agreement

We appreciate the opportunity to be of service to you and believe this letter accurately summarizes the significant terms of our engagement. This letter constitutes the entire agreement regarding these services and supersedes all prior agreements (whether oral or written), understandings, negotiations, and discussions between you and CLA. If you have any questions, please let us know. Please sign, date, and return the enclosed copy of this letter to us to indicate your acknowledgment and understanding of, and agreement with, the arrangements for our audit of your financial statements including the terms of our engagement and the parties' respective responsibilities.

Sincerely,

CliftonLarsonAllen LLP



Adam Pulley, CPA
Principal
309-495-8767
Adam.pulley@CLAconnect.com

Y CLA Common EL 2018 City of Mount Vernon

Enclosures

Response:

This letter correctly sets forth the understanding of City of Mount Vernon.

Authorized governance signature: _____

Title: Governance _____

Date: _____

Authorized management signature: _____

Title: Management _____

Date: _____

**Bradley L. Hauge, CPA
4807 Mary Green Court NE
Cedar Rapids, Iowa 52411
319-560-5237**

May 7, 2018

Mr. Chris Nosbisch, City Administrator
City of Mt. Vernon
213 1st Street West
Mt. Vernon, Iowa 52314

Dear Chris:

I am pleased to provide accounting services for the City of Mt. Vernon, Iowa (the City) for the fiscal year ending June 30, 2018. The purpose of this engagement letter is to confirm our understanding of the terms and objectives of our engagement and the nature and limitations of the services to be provided.

Services to be provided:

- Review receipts and disbursements ledgers for the fiscal year ending June 30, 2018.
- Prepare adjusting journal entries as needed.
- Reconcile transfers made during the year.
- Prepare and/or update various workpapers for the auditor.
- Prepare the financial statement (excel) portion of the City's year-end financial report to be audited by the City's auditors.
- Reconcile the year-end Clerk's Report balances to the year-end financial report.
- Assist with the preparation of the Management's Discussion and Analysis.
- Review final draft of the year-end audited financial statements in order to prevent an internal control letter deficiency comment relating to the review of financial statements.
- Preparation of the City Street Financial Report.
- Preparation of the State of Iowa City Annual Financial Report.

Fees and payment terms

The charges for this work are to be based upon the time involved. Bills for services are due when submitted. It is estimated that fees for the above services will be between \$6,450 and \$6,825.

I will not audit or review your financial statements, or any other accounting documents and information you provide, in accordance with generally accepted auditing standards. Accordingly, I ask that you do not in any manner refer to this as an audit or review.

You are responsible for adopting sound accounting policies, for maintaining an adequate and efficient accounting system, for safeguarding assets, for authorizing transactions, for retaining supporting documentation for those transactions, and for devising a system of internal controls that will, among other things, help assure the preparation of proper financial statements. Furthermore, you are responsible for management decisions and functions, for designating a

competent employee to oversee any of the services I provide, and for evaluating the adequacy and results of those services.

If, after full consideration, you agree that the foregoing terms shall govern this engagement, please sign this letter in the space provided and mail or email the signed letter back to me, keeping a fully-executed copy for your records.

I very much appreciate the opportunity to serve you and will be pleased to discuss any questions that you may have.

Very truly yours,



Bradley L. Hauge, CPA

ACCEPTED AND AGREED:

City of Mt. Vernon, Iowa

By _____

Date _____

Title

J. Motions for Approval

CITY OF MOUNT VERNON
CLAIMS FOR APPROVAL, JUNE 18, 2018

IMWCA	WORKERS COMP INSURANCE-INS LEVY	75,634.05
PAYROLL	CLAIMS	67,744.91
IOWA COMMUNITIES ASSURANCE POOL	VEHICLES & BLDGS-INS LEVY	67,488.00
GROUP SERVICES	INSURANCE-ALL DEPTS	21,473.88
OPN ARCHITECTS	WELLNESS CENTER/STUDY PHASE I	20,053.24
RACOM CORP	VEHICLE-PD	14,285.94
FUTURE LINE TRUCK EQUIPMENT	UTILITY BOX-WAT,SEW	9,296.40
GRAYBILL COMMUNICATIONS	RADIOS-RUT	6,064.00
CONFLUENCE INC	CORRIDOR STUDY	6,009.80
ELECTRIC PUMP	OAKRIDGE LFIT STATION-SEW	5,006.07
DELL	DESKTOPS,MONITORS,STANDS-PD	4,782.03
TREASURER STATE OF IOWA	SALES TAX	4,088.00
IOWA COMMUNITIES ASSURANCE POOL	LIABILITY POLICY-FD	3,827.52
GRAYBILL COMMUNICATIONS	RADIOS-RUT	3,200.00
GRAYBILL COMMUNICATIONS	RADIOS-RUT	2,980.00
IOWA LEAGUE OF CITIES	DUES-P&A	2,423.00
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-ALL DEPTS	2,158.61
STATE HYGIENIC LAB	TESTING-SEW	1,909.00
RACOM CORP	COMPUTER EQUIP-PD	1,537.50
WEX BANK	FUEL-PD,WAT,SEW	1,421.58
HECK'S TRANSFER	MOVING EXPENSE-P&A	1,000.00
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-P&REC	985.50
IOWA ASSOC OF MUNICIPAL UTIL	MEMBERSHIP-PW	980.48
CARRICO AQUATIC RESOURCES INC	CHEMICALS-POOL	832.15
FAT GUYS MOTOR SPORTS	CLUTCH,BLADES-RUT	751.66
RHINO INDUSTRIES INC	CHEMICALS-SEW	694.00
BROWN SUPPLY COMPANY	HYDRANT EXTENSION-WAT	608.00
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-P&REC	600.00
KONICA MINOLTA BUSINESS SOLUTIONS	MAINTENANCE PLAN/COPIES	593.68
TRUENORTH COMPANIES	EMPLOYEE THEFT/FORGERY POLICY	531.00
LYNCH	TPMS SCAN,ALIGNMENT,FILTERS	488.38
WEAPON SYSTEMS TRAINING	TRAINING-PD	485.00
NATHAN GOODLOVE	FIRE CHIEF PAY-FD	416.67
BRADLEY HAUGE CPA	PROFESSIONAL SERVICES-P&A	390.00
CUSTOM HOSE & SUPPLIES INC	SUPPLIES-SEW	376.28
IOWA SOLUTIONS INC	COMPUTER MAINT-ALL DEPTS	375.00
SPEER FINANCIAL INC	FY17 MSRB FILING FEE-P&A	375.00
RED LION RENEWABLES	SOLAR ELECTRIC PRODUCTION-P&A	325.71
COGRAN SYSTEMS	ONLINE REGISTRATION-P&REC	322.00
CR LC SOLID WASTE AGENCY	GB,LEAVES-S/W	318.16
BAUMAN AND COMPANY	UNIFORMS-WAT,SEW	318.00
IOWA DEPT OF PUBLIC SAFETY	ON LINE WARRANTS-PD	300.00
NOUNT VERNON BANK	20% OF CEMETERY SALES	280.00
LINN COUNTY PUBLIC HEALTH	INSPECTION-POOL	270.00
ALLIANT IES UTILITIES	ENERGY USAGE-FD	264.33
GARY'S FOODS	SUPPLIES-PW	232.84
MOUNT VERNON LISBON SUN	ADS/PUBLICATIONS-LOST III/CC	200.00
IOWA SOLUTIONS	COMPUTER MAINT-PD	187.50
KONE INC	ELEVATOR MAINT CONTRACT-P&A	171.69
GALLS INC	UNIFORMS-PD	163.21
US CELLULAR	CELL PHONE-PD	161.15
MEDIACOM	PHONE/INTERNET-POOL	161.02
GALLS INC	EQUIP MAINT-PD	160.62
IACMA	MEMBERSHIP-P&A	150.00
TASC	ADMIN FEE-ALL DEPTS	150.00
IA CITY/COUNTY MGMT ASSOC	MEMBERSHIP-ALL DEPTS	150.00
LYNCH	A/C MAINT-RUT	138.09

CITY OF MOUNT VERNON
CLAIMS FOR APPROVAL, JUNE 18, 2018

SAM'S CLUB	SUPPLIES-POOL	135.98
INTERSTATE ALL BATTERY CENTER	BATTERIES-EMA	125.80
GALLS INC	UNIFORMS-PD	102.47
COMMUNITY DEVELOPMENT GROUP	BASEBALL/HOTZ AGENCY	100.00
MOUNT VERNON, CITY OF	CONCESSION START UP CASH-P&REC	100.00
IOWA ONE CALL	LOCATES-WAT,SEW	96.30
DELUXE BUSINESS SYSTEMS	DEPOSIT SLIPS-ALL DEPTS	91.53
ARAMARK	RUGS-FD	88.62
ALLIANT IES UTILITIES	ENERGY USAGE-ST LIGHTS	86.55
PAT WESTERCAMP	FLOWERS,STAMPS-MVHPC	84.89
MATT SIDERS	MILEAGE-P&REC	84.48
STAPLES ADVANTAGE	STAPLES-P&A	83.11
STORM STEEL	HYDRANT PARTS-WAT	77.80
P&K MIDWEST INC	RAKE BLADE POINTS-RUT	67.20
LYNCH	5K MI MAINT,ROTATE TIRES-PD	66.32
NEAL'S WATER CONDITIONING SERVICE	WATER/SALT-RUT,P&A,SEW	65.40
FRANCESCA LEE THOMPSON	CLEANING SERVICE-P&A	60.00
JOAN BURGE	CLEANING SERVICE-P&A	60.00
AIRGAS INC	CYLINDER RENTAL FEE-PW	59.80
IOWA SOLUTIONS INC	PATCH MGMT,FIREWALL-PD	59.00
ELDON DOWNS	UNIFORMS-PW	58.15
KIRKWOOD COMMUNITY COLLEGE	TRAINING-PD	56.00
MOORE MEDICAL CORP.	SUPPLIES-FD	55.30
CENTURY LINK	PHONE CHGS-PD	51.31
DEPT OF THE TREASURY	IRS FORM 720/PCORI FEES	50.19
NICK NISSEN	UNIFORMS-RUT	39.99
MEDIACOM	PHONE/INTERNET-FD	31.93
MIDWEST SAFETY COUNSELOR	CALIBRATION-FD	30.00
ALLIANT IES UTILITIES	ENERGY USAGE-P&REC	25.60
GARY'S FOODS	SUPPLIES-P&REC	24.17
KURT PISARIK	UNIFORMS-PW	23.01
CORNELL COLLEGE	RAD MANUALS-PD	22.26
CARQUEST OF LISBON	VEHICLE REPAIRS-FD	3.19
	TOTAL	338,457.00

AGENDA ITEM # J – 2

**AGENDA INFORMATION
MT. VERNON CITY COUNCIL COMMUNICATION**

DATE:	June 18, 2018
AGENDA ITEM:	Roundabout Results
ACTION:	Motion

SYNOPSIS: Ben Wilkinson from MSA will be present at the Council meeting to discuss the results of the Highway 1 and Highway 30 roundabout study. Included in your packet is MSA's written report of their findings.

BUDGET ITEM: N/A

RESPONSIBLE DEPARTMENT: City Administrator

MAYOR/COUNCIL ACTION: Motion

ATTACHMENTS: Report

PREPARED BY: Chris Nosbisch

DATE PREPARED: 6/18/18



To: Chris Nosbich – City of Mount Vernon, IA
From: Ben Wilkinson, PE, and Nathan Cook
QA/QC: Mark Lenters
Subject: IA 1 at US 30
Roundabout In-Service Review
Date: June 13, 2018

BACKGROUND

MSA was tasked by the City of Mount Vernon to provide an in-service review of the multi-lane roundabout at IA 1 and US 30 in Mount Vernon, IA. There is concern that the roundabout is experiencing higher than normal number of crashes, albeit, mainly property damage only (PDO) type crashes.

The intersection is currently exhibiting a total crash frequency of 16.8 crashes per year, well above a predicted average of approximately 6 to 8 crashes per year. A 60% reduction of crashes per year would need to be achieved for this roundabout to perform within the range of national expected average number of crashes for similar multi-lane roundabouts.

The results from this investigation should give informed recommendations to decision makers to combat the probable causes of overrepresented crash patterns with their corresponding countermeasures. Through the implementation of geometric, traffic control, and education countermeasures, it is anticipated that crashes will decrease based on success of similar treatment of other roundabouts. The goal of this effort is to reduce the number of crashes to those typical of other roundabouts with similar traffic flows.

STUDY METHODOLOGY

Similar to traditional in-service reviews (FHWA methods), this study consisted of office and field reviews to document collision patterns and site deficiencies, which in-turn led to the development and evaluation of collision reduction countermeasures.

As part of this in-service review, the following tasks were completed:

1. Collision Analysis
2. Geometric Conformance Review

3. Operational Analysis
4. List of Identified Deficiencies (Office Review)
5. Site Visit – verification of deficiencies
6. Development of Countermeasures
7. Documentation/Reporting

First, a collision analysis was performed to identify target crash patterns. Then, the relative crash frequency in each quadrant of the intersection was compared to the potential conflicts present in each quadrant. Operational analysis was also performed to identify capacity deficiencies that may influence crash patterns.

Field observations were undertaken to identify geometric anomalies, physical deficiencies and driver performance (human factors) issues at the roundabout. Subsequently, countermeasures are proposed based on findings from the previous tasks.

CRASH ANALYSIS

Mount Vernon police retrieved crash data for this intersection from January 2014 through February 2018 (4.17 years). Within this period, 70 crashes were analyzed. Of the crashes on record, there were 43 angle collisions, 14 sideswipes, 5 fixed objects, and 8 rear-end collisions. Fifteen (15) crashes involved injuries, and no crashes involved a fatality. The total crash rate for the intersection is 2.2 crashes per million entering vehicles (MEV) and 0.5 crashes/MEV for injury type crashes. For comparison, a recent study of 32 similar multi-lane roundabouts in Wisconsin showed an average of 0.8 crashes/MEV and 0.14 injury crashes/MEV. Eleven (11) of the 70 crashes involved semi-trucks, which accounts for 16 percent of the total crashes. On average, there are 2.6 crashes per year involving semi-trucks; this is higher than expected since truck traffic only makes up 8 to 9 percent of the total traffic present at the intersection. See Table 1 for a summary of the manner of collisions occurring at the intersection. A complete collision diagram can be found in Exhibit 1.0.

Table 1. Summary of Manner of Collision

Year	Crash Type				Total
	Angle	Side Swipe	Rear End	Fixed Object	
2014	7	3	1	1	12
2015	12	3	2	1	18
2016	11	3	1	1	16
2017	13	4	4	2	23
2018	0	1	0	0	1
TOTAL	43	14	8	5	70
Percent of Total Crashes	61%	20%	11%	7%	



LEGEND

- | | | | |
|---|---------------------------------|---|---------------------|
| → | REAR-END | ⊥ | FIXED OBJECT |
| → | HEAD-ON | ↔ | LEFT TURN, OPPOSING |
| ↔ | SIDE-SWIPE, SAME DIRECTION | ↔ | LEFT TURN, SIDE |
| ↔ | SIDE-SWIPE, OPPOSITE DIRECTIONS | ↔ | TURN, OPPOSING |
| ↔ | ANGLE, OPPOSITE DIRECTIONS | ↔ | RIGHT TURN, SIDE |
| ↔ | ANGLE, SIMILAR DIRECTIONS | ↔ | OVERTAKE |
| ↔ | RIGHT-ANGLE | ↔ | OVERTURN |
| ↔ | LOSS OF CONTROL | ↔ | BACKING VEHICLE |
| | | ⊙ | PEDESTRIAN |
| | | ⊙ | BICYCLE |

- | | | | |
|----|----------------------|------|---------------------|
| K | FATALITY | (S) | SNOW |
| A | INCAPACITATING | (W) | WET |
| B | NON-INCAPACITATING | (F) | FOG/MIST |
| C | POSSIBLE INJURY | (DU) | UNDER THE INFLUENCE |
| PD | PROPERTY DAMAGE ONLY | <D> | DAY |
| | | <N> | NIGHT |
| | | <DL> | DARK-LIGHTED |

NOTE:
 SIDESWIPE LOCATIONS ARE UNABLE TO BE DETERMINED BASED ON CRASH REPORTS. ALL SIDESWIPE CRASHES HAVE BEEN PLACED ON THE ENTRY BOTH VEHICLES WERE TRAVELING IN.

CRASH DIAGRAM 01/2014 - 02/2018
 US 10 INTERSECTION WITH HIGHWAY 1
 MOUNT VERNON, IOWA

EXHIBIT 1.0

The roundabout experiences mainly property damage only (PDO) crashes; however, 3.6 injury type crashes are occurring on average per year. See Table 2 for a summary of crash severities occurring at the intersection.

Table 2. Summary of Crash Severity

Year	Crash Severity (KABCO-scale)					Total
	Fatality	A	B	C	Property Damage Only	
2014	0	0	0	3	9	12
2015	0	0	1	4	13	18
2016	0	1	3	0	12	16
2017	0	0	3	0	20	23
2018	0	0	0	0	1	1
Total	0	1	7	7	55	70
Percent of Total Crashes	0%	1%	10%	10%	79%	

The roundabout experiences many of its crashes during the daytime. However, a good portion of crashes are occurring during the night time when traffic volumes are usually lower and even with the roundabout being lighted. See Table 3 for a summary of environmental conditions when crashes occur at the intersection.

Table 3. Summary of Environmental Conditions

Year	Crash Conditions				
	Snow	Wet	Day	Night-Lighted	DUI
2014	1	3	8	4	1
2015	0	3	12	6	1
2016	0	3	10	6	0
2017	0	3	17	6	1
2018	0	1	1	0	0
Total	1	13	48	22	3
Percent of Total Crashes	1%	19%	69%	31%	4%

Table 4 shows the distribution of crash severities at the intersection, along with a comparison of average injury and property damage only crashes at roundabouts across the US, and in WI and MN. As indicated in the table, the majority of crashes are property damage type crashes; however, injury crashes are higher than national averages.

Table 4. Totals by Crash Severity

Crash Severity	Site #	% of Total	US % ¹	WI % ²	MN % ³	Avg.
Injury/fatality Crash	15	21%	8%	17%	11%	12%
Property Damage Crash	55	79%	92%	83%	89%	88%

Based on crash prediction models, shown in Table 5, the roundabout is experiencing, more crashes, of all severities, than expected. This demonstrates the need for improvements at the intersection to reduce annual crashes to nationally predicted levels. A reduction of 10 crashes per year, a 60% reduction, would achieve safety operations comparable to model predictions.

Table 5. Comparison of Actual Collision Frequency to Predicted Frequency (crashes per year)

Collision Class	Expected Annual Crashes (NCHRP Model) ¹	95 th Percentile Expected Crash Frequency (NCHRP Model)	Expected Annual Crashes (WI Calibrated NCHRP Model 2017) ²	95 th Percentile Expected Crash Frequency (WI Calibrated NCHRP Model 2017)	Expected Annual Crashes (MDOT Safety Performance Functions 2011) ³	95 th Percentile Expected Crash Frequency (MDOT Safety Performance Functions 2011)	Recorded Annual Freq. of Crashes (2012 to 2017)
Total Crashes	6.6	17.6	7.8	21.8	1.9	5.3	16.8
Injury Crashes	0.5	1.2	1.1	2.9	0.2	0.5	3.6

Iowa 1 at US 30 is experiencing a crash rate of 2.2 crashes per million entering vehicles (MEV). This is well above the expected crash rate ranging from 1.0 to 0.2 MEV, shown in Table 6.

Table 6. Comparison of Actual Crash Rate to Predicated Crash Rates

Collision Class	Site Crash Rate (2014 to 2018)	NCHRP Expected Crash Rate ¹	WI Expected Crash Rate ²	MN Expected Crash Rate ³
Total Crashes	2.2 MEV	0.9 MEV	0.8 MEV	0.2 MEV
Injury Crashes	0.5 MEV	0.07 MEV	0.14 MEV	0.03 MEV

¹ Using the crash Prediction Methodology in Chapter 5.4, NCHRP Report 672

² Based on study of 32 multi-lane urban roundabouts in Wisconsin, June 2018

³ Evaluating the Performance and Safety Effectiveness of Roundabouts, The Michigan Department of Transportation, 2011

OPERATIONAL ANALYSIS

The existing roundabout was analyzed in Junctions 9 (ARCADY) and HCS 7 roundabout design and capacity analysis software. ARCADY (Assessment of Roundabout Capacity and Delay) is a program based on U.K. empirical research into geometry-capacity relationships. Two features that ARCADY provides are its ability take into account horizontal geometric design sensitivity and its ability to be calibrated. These two features are critical to accurately modeling the in-service roundabout to determine expected operations for any proposed roundabout geometric modifications. It was determined that a 5% capacity reduction factor was required to calibrate the software to match field observations of queues for the AM and PM peak hours. Turning movement counts were provided by the Iowa Department of Transportation (IaDOT) are shown in Figure 1.

The results of the analysis represent capacity measures of level of service (LOS), delay and queuing, consistent with typical unsignalized capacity analysis methodologies (Highway Capacity Manual, 2010). The results of the ARCADY analyses are summarized in Table 7, detailed reports are in Appendix A. In general, the roundabout is exhibiting acceptable operations during the peak periods.

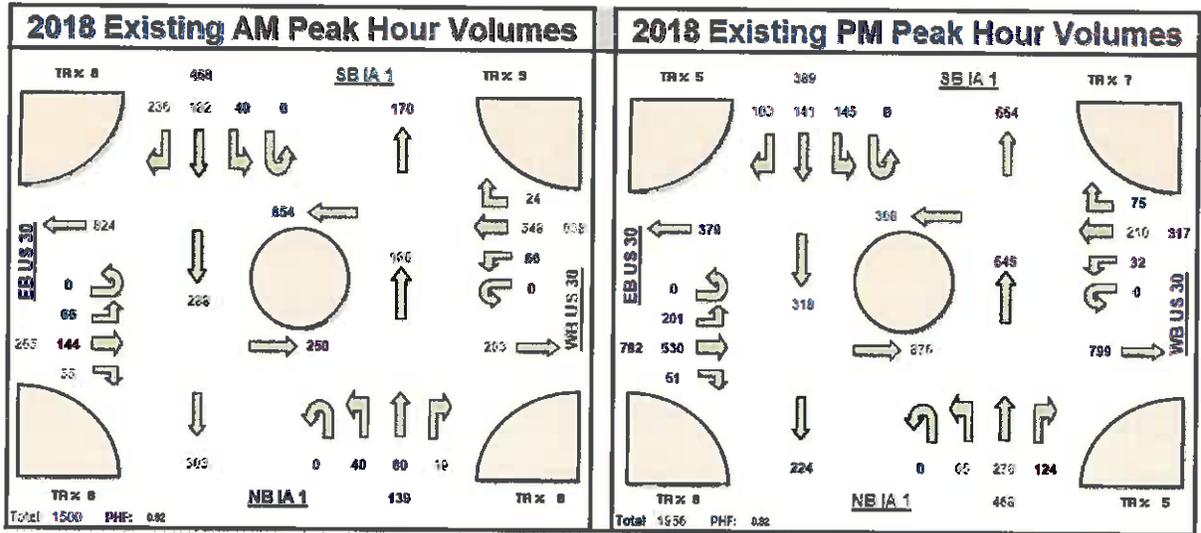


Figure 1. 2018 Existing Peak Hour Turning Movement Volumes

Table 7. 2018 Existing Lane Configuration Roundabout Operational Analysis

Lane Group		SB IA 1		EB US 30			NB IA 1		WB US 30		
		LT	R	LT	T	R	LT	TR	LT	R	
ARCADY	AM Peak	LOS	A	A	A	A	A	A	A	A	A
		v/c	0.32	0.34	0.14	0.14	0.06	0.09	0.09	0.62	0.02
		Queue (ft)	50	75	25	25	25	25	25	50	25
		Delay (s)	6.8	7.0	2.4	2.4	3.7	2.3	2.3	8.8	3.4
	PM Peak	LOS	A	A	A	A	A	A	A	A	A
		v/c	0.30	0.11	0.47	0.47	0.06	0.40	0.40	0.30	0.09
		Queue (ft)	50	25	25	25	25	50	50	50	25
		Delay (s)	5.0	3.9	4.1	4.1	3.8	4.6	4.6	5.7	4.4
	HCM 7	AM Peak	LOS	B	B	A	A	A	A	A	B
v/c			0.42	0.41	0.11	0.12	0.06	0.07	0.08	0.62	0.02
Queue (ft)			50	50	25	25	25	25	25	125	25
Delay (s)			12.6	11.7	4.7	4.9	4.4	4.4	4.2	11.6	3.4
PM Peak		LOS	A	A	A	A	A	C	B	A	A
		v/c	0.34	0.12	0.40	0.45	0.05	0.48	0.48	0.34	0.10
		Queue (ft)	50	25	50	75	25	75	75	50	25
		Delay (s)	7.6	4.9	8.3	9.1	3.9	15.9	14.4	8.7	5.3

LOS Source: 2010 Highway Capacity Manual - Unsignalized Intersections Delay in Seconds
 Queue represents 95th percentile queue per lane, 25 feet per vehicle

With the introduction of the US 30 bypass, currently under construction south of the intersection, much of the traffic on US 30 (eventually becoming Old US 30) will be reduced significantly. Because of this reduction in traffic, conversion to a single lane roundabout, including the existing yielding bypasses, were investigated as a possible countermeasure to reduce the number of crashes. The US 30 bypass is currently planned to be open in 2020-2021.

The single lane roundabout was analyzed for design year 2040. Additionally, the roundabout was analyzed for existing year 2018 to determine if the countermeasure could be implemented immediately or have to wait for the US 30 bypass to be opened. Adjusted design year turning movement volumes were provided by the Iowa DOT and are shown in Figure 2.

The results of the ARCADY analyses are summarized in Table 8 and Table 9, detailed reports are in Appendix A. A single lane roundabout is expected to operate acceptably to design year 2040 with the introduction of the US 30 bypass. Unfortunately, a single lane roundabout is not expected to operate acceptably with the existing traffic volumes. The conversion to a single lane roundabout will need to wait until the US 30 bypass is opened. The single lane roundabout conversion will be further discussed in the countermeasure section.

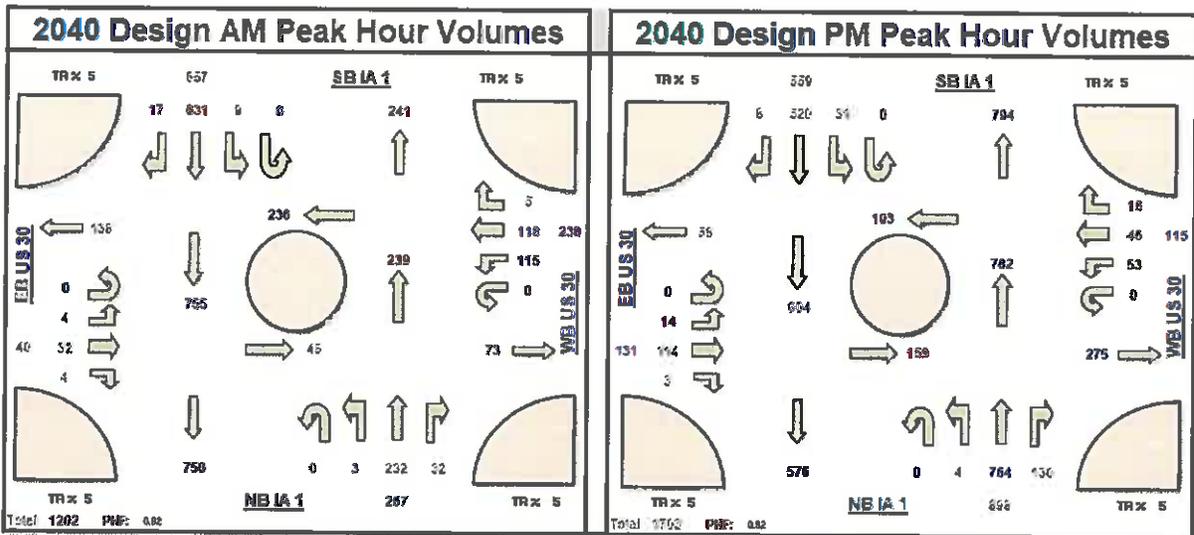


Figure 2. 2040 Adjusted Design Year Peak Hour Turning Movement Volumes

Table 8. 2018 Single Lane Roundabout Operational Analysis

Lane Group		SB IA 1		EB US 30		NB IA 1	WB US 30		
		LT	R	LT	R	LTR	LT	R	
ARCADY	AM Peak	LOS	A	A	A	A	A	A	A
		v/c	0.32	0.35	0.23	0.06	0.15	0.64	0.03
		Queue (ft)	50	75	50	25	25	75	25
		Delay (s)	7.1	7.3	4.7	3.8	4.2	9.7	3.5
	PM Peak	LOS	A	A	C	A	D	A	A
		v/c	0.31	0.11	0.82	0.06	0.80	0.32	0.10
		Queue (ft)	50	25	550	25	475	50	25
		Delay (s)	5.2	4.0	19.6	3.9	27.7	6.2	4.7
HCM 7	AM Peak	LOS	B	B	A	A	A	B	A
		v/c	0.42	0.41	0.25	0.06	0.16	0.66	0.02
		Queue (ft)	50	50	25	25	25	125	25
		Delay (s)	12.6	11.7	6.6	4.4	5.3	13.4	3.6
	PM Peak	LOS	A	A	D	A	F	B	A
		v/c	0.34	0.12	0.90	0.05	1.1	0.39	0.11
		Queue (ft)	50	25	325	25	425	50	25
		Delay (s)	7.6	4.9	32.6	3.9	100.5	10.5	6.1

LOS Source: 2010 Highway Capacity Manual - Unsignalized Intersections Delay in Seconds
 Queue represents 95th percentile queue per lane, 25 feet per vehicle

Table 9. 2040 Single Lane Roundabout Operational Analysis

Lane Group		SB IA 1		EB US 30		NB IA 1	WB US 30		
		LT	R	LT	R	LTR	LT	R	
ARCADY	AM Peak	LOS	A	A	A	A	A	A	A
		v/c	0.65	0.02	0.05	0.00	0.25	0.24	0.01
		Queue (ft)	75	25	25	25	50	50	25
		Delay (s)	9.5	3.4	5.0	0.0	4.0	4.3	3.3
	PM Peak	LOS	A	A	A	A	D	A	A
		v/c	0.52	0.01	0.17	0.00	0.88	0.15	0.02
		Queue (ft)	50	25	25	25	900	25	25
		Delay (s)	6.4	3.1	5.1	0.0	26.0	5.8	5.0
HCM 7	AM Peak	LOS	B	A	A	A	A	A	A
		v/c	0.70	0.02	0.07	0.01	0.23	0.25	0.01
		Queue (ft)	150	25	25	25	25	25	25
		Delay (s)	14.9	3.3	7.5	6.6	4.9	6.1	3.7
	PM Peak	LOS	A	A	A	A	D	A	A
		v/c	0.51	0.01	0.21	0.00	0.89	0.20	0.03
		Queue (ft)	75	25	25	25	325	25	25
		Delay (s)	8.9	3.0	8.1	5.4	27.4	9.5	7.2

LOS Source: 2010 Highway Capacity Manual - Unsignalized Intersections Delay in Seconds
 Queue represents 95th percentile queue per lane, 25 feet per vehicle

SITE VISIT & CONSTRUCTION CONFORMANCE REVIEW

MSA conducted a site visit on Tuesday, April 24th, 2018. During the site visit, roundabout operations, driver behavior, geometric deficiencies, signing and marking were reviewed to supplement the office review and develop suitable countermeasures. The following section summarizes observations made during the site visit to help determine the roundabout’s safety deficiencies.

- Plantings are absent from the splitters and central island giving drivers clear view of all approaches and on-coming vehicles, see Figure 3. This may be resulting in drivers making premature decisions about entering the roundabout, resulting in the high number of failure to yield crashes.



Figure 3. Lack of Central Island Planting

- The roundabout also has a feeling of being “wide” and “open” due to no plantings, minimal signing, and near-by business parking lots, see Figure 4. Drivers may not realize they are approaching a roundabout resulting in last minute decisions.



Figure 4. Looking up the Eastbound Approach

- Bypass splitter islands and truck apron curb heads are extremely low allowing vehicles to drive easily over them. Additionally, the bypass splitter islands have no concrete coloring and the truck apron is nearly faded way blending into the color of the roadway concrete. Numerous times, it was observed vehicles would drive onto the truck apron as if it was part of the circulating roadway, see Figure 5. This pattern is clearly seen by looking at the aerial image of the intersection and seeing where the driving paths (tire marks) are located.



**Figure 5. Low Curb Height, Faded Coloring,
and Vehicle Traversing Truck Apron**

- Concrete joints were not done per plan resulting in conflicting message to drivers when comparing the joints to direction of the pavement markings. As an example, right-turn bypass joints were pulled through the exit giving the driver the feeling it's free flow, see Figure 6. Additionally, at the entries, the pavement markings are up to two feet from the concrete joint when they should be right next to each other.



Figure 6. Incorrect Joint Placement

- Pavement markings again were not completed per plan, which maybe resulting in driver confusion and inevitably crashes. Examples of issues include:
 - Not pulling the pavement markings through the exit such as the north leg and east leg exits. This has had a negative result on the northbound through movement since the inside lane circulating has a curve to it which may give westbound drivers the sense that the inside lane can only turn left.
 - Pavement markings were pulled through the entry maybe resulting in drivers believing they have the right-of-way. Dot markings are fine in this area to give drivers direction on circulating lane choice and combating path overlap issues but dashed pavement markings may reverse driver priorities, see Figure 7 blue arrow.
 - As mentioned previously, pavement markings are offset from joint lines giving drivers mixed signals, see Figure 7 orange arrow.
 - Pavement markings around the north, south and east leg are wrapped around the curb instead of coming to a point. Coming to a point helps to prevent vehicles from turning left at the entry.



Figure 7. Incorrect Pavement Markings

- Drivers were observed weaving in-between circulating lanes when other vehicles are not present, effectively driving the fast path.
- Many times drivers would stack up in the outside lane when the inside lane was available, particularly for the eastbound approach. This may be due to drivers being used to weaving in-between lanes when circulating.

- Large amounts of trucks were present traveling through the roundabout. Commonly trucks would stay in the outside lane at entry and then move to the inside lane circulating. This type of behavior can be contributing to the truck and car sideswipe crashes. Vehicles are able to drive on the left side of the truck at the entry and then become trapped in the circulating roadway.
- Overtracking of the outside curb was observed in every corner of the roundabout.
- Overtracking of the central island was also observed on the northeast side of the central island (occurring from northbound left turning trucks), resulting in damage to the curb head, see Figure 8.



Figure 8. Evidence of Overtracking of the Central Island

COUNTERMEASURE ALTERNATIVES

Several countermeasures to improve the safety of the IA 1 at US 30 roundabout are presented in this section for consideration by the City of Mt. Vernon. Countermeasures are organized into low, medium, and high categories. Low countermeasures include improvements that range in cost up to \$20,000 and can be implemented immediately. Medium countermeasures are expected to range in cost from \$20,000 to \$50,000. High countermeasures are expected to incur the most cost, \$50,000 and greater, and usually require the most reconstruction of the intersection to implement.

LOW/IMMEDIATE COUNTERMEASURES

Installing planting or screenings in the medians on all approaches will help to promote yielding at entry. As described in the U.K. roundabout design guide, “in some circumstances excessive forward visibility at entry or visibility between adjacent entries can result in approach and entry speeds greater than desirable for the intersection geometry”. Restricting sight to the left requires drivers to further reduce speed on approach before making a decision if there is an appropriate gap to enter or not. This restriction reduces driver’s tendencies to “fly” into the roundabout when operating in off-peak periods. Screenings should be installed to allow for a minimum vision area of 50 feet back on the approach and upstream entry. Examples of plantings and screenings can be seen in Figure 9 and Figure 10. The version of screening applied in Oakland County in 2016 generated a 9 mph reduction in the 85th percentile speeds. It is too soon to conclude that their pilot study measure has been successful, but in the U.K., this measure has been applied to successfully reduce entry-circulating collisions.



Figure 9. Example Median Planting

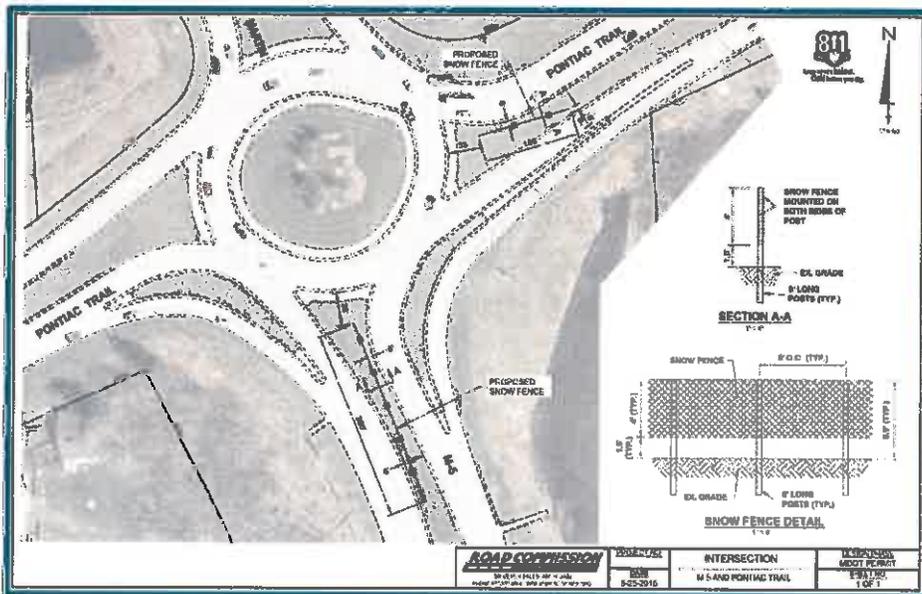


Figure 10. Example Median Screening Plans (Source: Oakland County Road Commission, 2016)

Additionally, the central island should be mounded and include plantings that grow tall enough to restrict sight across the roundabout. This will help to alert drivers of the approaching roundabout further in advance and give the roundabout more definition and aesthetics. See Figure 11 of a typical cross section of the central island used by the Wisconsin DOT.

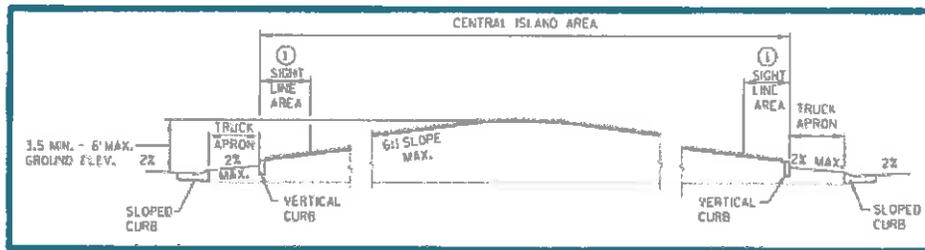


Figure 11. WisDOT Central Island Typical Section

Recommended plants should be salt tolerant and have a mature height of around 3 feet. Examples of these types of plants include, but are not limited to, Alpine Currant, Fragrant Sumac, Jackmanni, or Winged Euonymus.

The truck apron needs to be identified as not being a part of the circulatory roadway, and should not be traversed by vehicles. There are two options to signify this. The first option is paint chevron arrows on the truck apron in the direction travel, such as the example shown in Figure 12 from Coralville, IA. Alternatively, you can paint the whole truck apron a red color, such as it should have been done originally. Either option can be done with either paint or epoxy surface coloration. Two companies, Ennis and TransSafe, provide this color pavement marking treatment that uses a slurry type epoxy that is skid resistant, last for seven plus years, and allows for custom colors. This product is widely used for coloring bike paths across the country and is approved for use on roadways. Product sheets from both companies are attached in Appendix B. Both design and material options should be taken into consideration based on cost, the chasing arrows with paint would likely be the cheaper option but would require more maintenance and refreshing of the paint. On the other side, the full coloring of the truck apron with epoxy will likely last longer but have a higher initial cost. This countermeasure should also be considered for mountable splitter island areas if cost are not prohibitive.



Figure 12. Truck Apron Chevron Example from Coralville, IA

An alternative low-cost and immediate solution is to enhance approach signing. With approval of the Iowa DOT destination sign types (D1-5), as shown in Figure 13, should be installed on all approaches in place of the current route directional signs (M series). These signs help to give better advance warning of the approaching roundabout, as well as, destination and route guidance. With the large percentage of semi-truck related crashes involved at the roundabout a warning sign that identifies that trucks can use both lanes, such as the example in Figure 14, could be installed on the eastbound and northbound approaches where this is problematic. Yield signs could also be enhanced with LED indicators to enforce the need to yield on entry, see Figure 15.

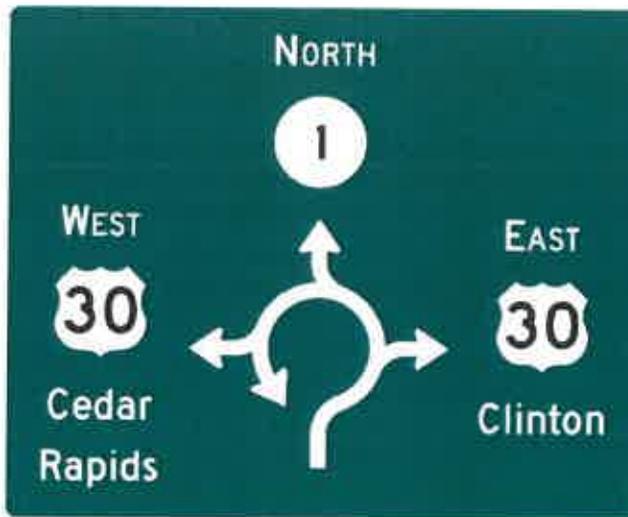


Figure 13. Example of a Destination Sign Type



Figure 14. Truck Use Both Lanes Sign



Figure 15. LED-enhanced Yield sign (image courtesy of TAPCO)

Campaigning for driver education about lane choices and yielding behavior is a low-cost measure that will also serve to relieve the failure to yield and improper lane change issue. Appendix C provides examples of handouts and flyers that could be used at the time the immediate countermeasures are installed. We also recommend selective enforcement whereby police officers will give warnings and hand out one of the education brochures.

MEDIUM COUNTERMEASURES

Once the US 30 bypass is opened, conversion of the roundabout to single lane entries can be completed if approved by the Iowa DOT. Single lane roundabouts are safer than multi-lane roundabouts because they have less conflict points and proper lane choice is not a factor. The single lane roundabout would eliminate the present crash issue of sideswipe same direction since no side by side driving is allowed. Paint markings will be used to convert the roundabout versus reconstructing curb lines due to the increased cost. The yielding right-turn bypasses can remain as is since they do not pose a major crash contributor, even though operationally they are not needed. Additionally, pavement markings from the existing design should be corrected such as bringing edgelines to points at the splitter island. See Figure 16 and Exhibit 2.0 for the proposed improvements of the converted single lane roundabout.



Figure 16. Single Lane Roundabout Countermeasure

With the reduction in traffic volumes and conversion to a single lane roundabout, an updated crash prediction model was completed to reevaluate the expected number of crashes following the completion of the US 30 bypass. As seen in Table 5, an updated average expected number of total crashes per year for the single lane roundabout is in the range of 3 to 9 and injury type crashes from 0.5 to 1.5 per year.

Table 10. Comparison of Actual Collision Frequency to Predicted Frequency (crashes per year)

Collision Class	Expected Annual Crashes (NCHRP Model) ¹	95 th Percentile Expected Crash Frequency (NCHRP Model)	Expected Annual Crashes (WI Calibrated NCHRP Model 2017) ²	95 th Percentile Expected Crash Frequency (WI Calibrated NCHRP Model 2017)	Expected Annual Crashes (MDOT Safety Performance Functions 2011) ³	95 th Percentile Expected Crash Frequency (MDOT Safety Performance Functions 2011)
Total Crashes	3.3	9.1	3.8	10.6	0.8	2.2
Injury Crashes	0.4	1.1	0.5	1.4	0.1	0.2

HIGH COUNTERMEASURE

No high cost countermeasures are recommended. High countermeasures would likely be cost prohibitive to the community, requiring curb line changes or a full reconstruction of the roundabout. Implementation of the low and medium cost countermeasures are expected to improve the roundabout's safety and crash rate.

¹ Using the crash Prediction Methodology in Chapter 5.4, NCHRP Report 672

² Based on study of 32 multi-lane urban roundabouts in Wisconsin, June 2018

³ Evaluating the Performance and Safety Effectiveness of Roundabouts, The Michigan Department of Transportation, 2011

CONCLUSION AND RECOMMENDATIONS

Based on the crash analysis, there is an overrepresentation of angle and sideswipe crashes caused by failure to yield and improper lane changes at the intersection. The higher-than-expected frequency of crashes, of all severities and types, indicates a high potential for safety improvement. Findings from this report suggest that deficiencies in signing and marking, and geometry are contributors to driver error and the high percentages of crashes.

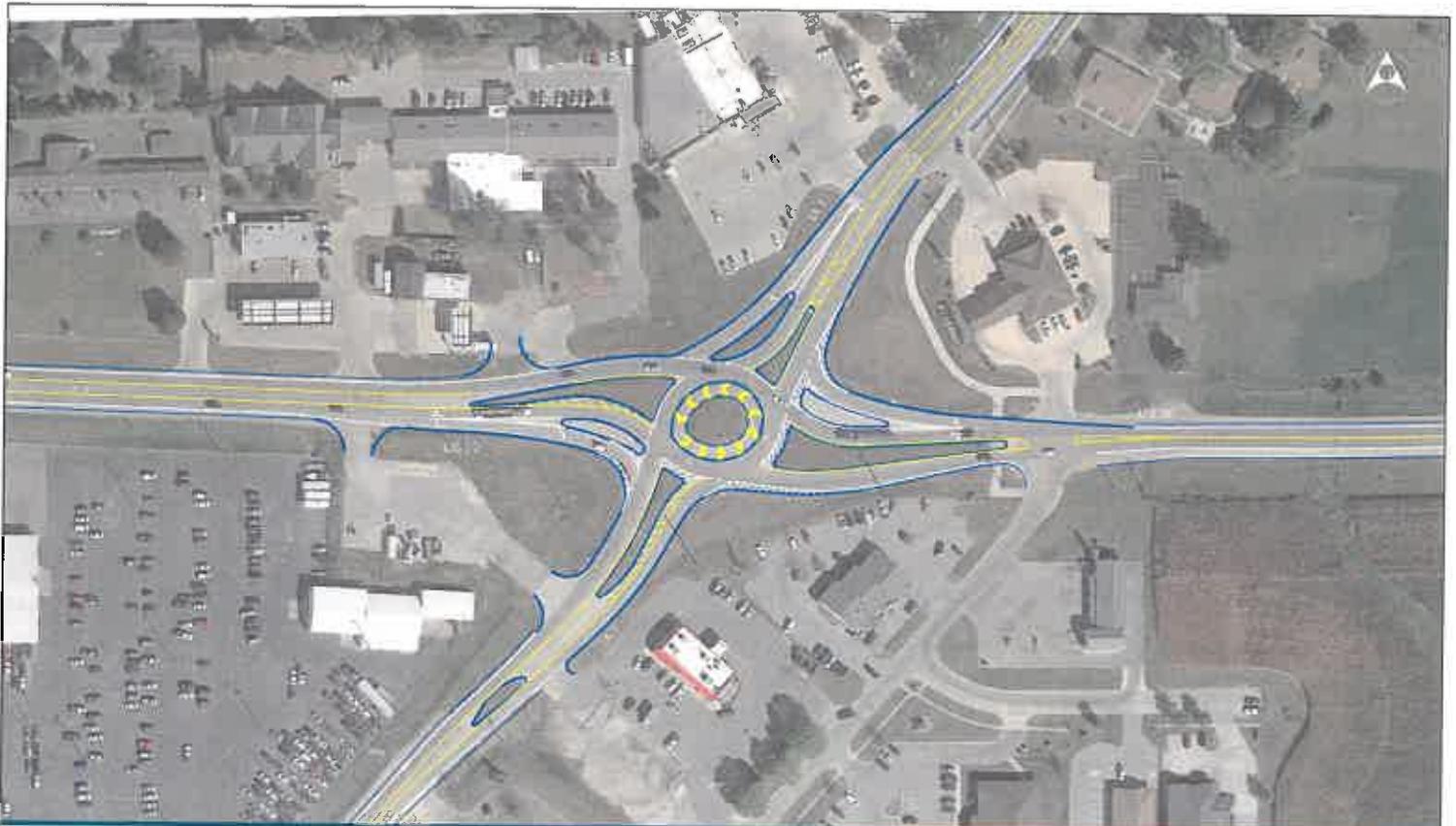
A 60% reduction of crashes per year would need to be achieved for this roundabout to perform within the range of national expected average number of crashes. Current research into the collision modification benefits of various roundabout safety countermeasures is not well established in the U.S. Generally, a geometry that conforms to the current guidelines is considered a safer design when accompanied by an aggressive public education/enforcement campaign. Case precedents of crash reduction have been observed for the kinds of improvements that are proposed in this report.

For a low-cost and immediate solution, coloring or painting the truck apron, installing median screening to restrict sight to the left, and mounding and landscaping the central island to restrict forward sight will serve to promote correct lane choices and driver compliance with yielding at entries. Additionally, installation of the destination type signs will give drivers further advance warning of the approaching roundabout. Installation of the warning signs informing drivers that trucks use both lanes should help reduce the sideswipe crashes.

Furthering driver education about lane choices and yielding behavior is another recommended low-cost measure that will also serve to relieve the failure to yield issue. Appendix C provides sample handouts and flyers that could be used at the time the immediate countermeasures are installed. We also recommend selective enforcement whereby police officers will give warnings and hand out one of the educational brochures.

Once the US 30 bypass is constructed the roundabout should be experiencing less traffic allowing for its conversion to a single lane roundabout. Single lane roundabouts are safer than multi-lane roundabouts because they have less conflict points and proper lane choice is not a factor. Conversion to the single lane roundabout can be done using pavement markings to keep cost low.

The implementation of the above-mentioned countermeasures should bring the roundabout within the range of expected crashes per year.



MSA
 ARCHITECTURE, ENGINEERING & CONSULTANTS
 200 W. WASHINGTON ST., SUITE 200
 MOUNT VERNON, IOWA 52641
 PHONE: 319.335.8100 FAX: 319.335.8101
 WWW.MSA-IA.COM

US 10 at IA 1
Mount Vernon, Iowa

INTERSECTION OVERVIEW

SCALE
 0 50 100

EXHIBIT: 2.0

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 Plot Linetype: Solid
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 Plot Title: 18-0001.dwg
 Plot User: jason@msa.com

APPENDIX A – Operational Analysis

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION

STANDARD ROUNDABOUT CAPACITY MODEL

A.1 2018 Existing Lane Configuration Results	A.1.1 – A.1.8
A.2 2018 Single Lane Results	A.2.1 – A.2.8
A.2 2040 Single Lane Results	A.2.1 – A.2.9

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Existing Lane Configuration

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	296	232	30	0	458
EB US 30	55	144	66	0	265
NB IA 1	45	80	40	0	139
WB US 30	24	545	66	0	638
Total	334	954	212	0	

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	8	8
EB US 30	8	8	8	8	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	26.00	26.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	180.0	200.0	130.0	200.0
D - Inscribed circle diameter (ft)	230.0	190.0	180.0	180.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	265	139	638
Max delay (s)	6.84	2.43	2.27	3.80
Max LOS	A	A	A	A
Max 95th percentile Q ₉₅ (Veh)	1.9	0.5	0.5	1.9
Max V/C Ratio	0.32	0.14	0.09	0.62

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Existing Lane Configuration
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	236	0	0	0	236
EB US 30	55	144	56	0	255
NB IA 1	39	60	40	0	139
WB US 30	24	548	56	0	638
Total	354	772	172	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	8	8
EB US 30	8	8	8	8	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	32.00	32.00	32.00	32.00
E - Entry width (ft)	34.00	26.00	26.00	34.00
l - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	190.0	200.0	190.0	190.0
D - Inscribed circle diameter (ft)	190.0	190.0	190.0	190.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	236	255	139	638
Max delay (s)	7.04	2.17	2.33	8.80
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	2.3	0.9	0.5	1.8
Max V/C Ratio	0.34	0.32	0.09	0.62

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Existing Lane Configuration
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	238	182	90	0	458
EB US 30	55	0	0	0	55
NB IA 1	35	30	60	0	139
WB US 30	24	545	69	0	638
Total	339	810	146	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	3	8	8	8	8
EB US 30	3	8	8	8	8
NB IA 1	3	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	13.00	12.00
E - Entry width (ft)	14.00	14.00	15.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	190.0	200.0	190.0	200.0
D - Inscribed circle diameter (ft)	190.0	190.0	190.0	190.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	55	139	638
Max delay (s)	5.94	3.73	2.06	5.04
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.3	0.5	0.5	1.3
Max V/C Ratio	0.32	0.06	0.09	0.50

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Existing Lane Configuration
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	236	182	40	0	458
EB US 30	55	144	46	0	265
NB IA 1	19	80	40	0	139
WB US 30	24	0	0	0	24
Total	334	406	146	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	8	8
EB US 30	8	8	8	8	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	8	9	9
Average	8	8	8	8	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	26.00	26.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	190.0	200.0	190.0	300.0
D - Inscribed circle diameter (ft)	190.0	160.0	190.0	190.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	265	139	24
Max delay (s)	3.85	2.35	2.27	3.40
Max LOS	A	A	A	A
Max 92th percentile Queue (Veh)	1.1	0.5	0.5	0.5
Max V/C Ratio	0.21	0.13	0.08	0.02

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Year 2018
PM Peak Hour
Existing Lane Configuration

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	103	141	145	0	389
EB US 30	81	330	201	0	782
NB IA 1	126	278	66	0	468
WB US 30	25	290	32	0	317
Total	335	1159	444	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	26.00	26.00	14.00
L - Effective lane length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	190.0	300.0	190.0	200.0
D - Inscribed circle diameter (ft)	120.0	160.0	150.0	180.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	389	782	468	317
Max delay (s)	5.01	4.05	4.58	5.74
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.9	1.7	2.9	2.7
Max V/C Ratio	0.30	0.47	0.40	0.30

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Existing Lane Configuration
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	103	0	0	0	103
EB US 30	51	525	201	0	782
NB IA 1	124	178	66	0	468
WB US 30	75	200	32	0	317
Total	353	1018	299	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	3	6	8	0	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	26.00	26.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	180.0	200.0	190.0	200.0
D - Inscribed circle diameter (ft)	190.0	190.0	190.0	190.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	103	782	468	317
Max delay (s)	3.91	3.23	4.02	5.74
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	0.5	2.4	2.7	1.7
Max V/C Ratio	0.11	0.42	0.37	0.30

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Existing Lane Configuration
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	103	141	145	0	389
EB US 30	51	0	0	0	51
NB IA 1	124	270	66	0	468
WB US 30	75	230	32	0	317
Total	353	629	243	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	190.0	200.0	190.0	200.0
D - Inscribed circle diameter (ft)	130.0	190.0	130.0	190.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	389	51	468	317
Max delay (s)	3.03	3.77	2.85	4.81
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.3	0.3	1.3	1.5
Max V/C Ratio	0.30	0.05	0.28	0.26

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Existing Lane Configuration
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	103	141	145	0	389
EB US 30	54	530	201	0	782
NB IA 1	124	376	66	0	466
WB US 30	75	0	0	0	75
Total	353	949	412	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	26.00	26.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
Ri - Entry radius (ft)	130.0	200.0	130.0	200.0
Di - Inscribed circle diameter (ft)	130.0	150.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	30.0	20.0	20.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage Intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	389	782	466	75
Max delay (s)	4.09	3.93	4.58	4.44
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.0	1.8	2.9	0.5
Max V/C Ratio	0.26	0.47	0.40	0.09

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Single Lane

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	236	182	40	0	458
EB US 30	55	144	66	0	265
NB IA 1	35	80	40	0	139
WB US 30	34	548	65	0	638
Total	334	954	212	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	0	8
EB US 30	8	8	8	0	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	11.00	11.00	11.00	11.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flange length (ft)	130.0	150.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	160.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	265	139	638
Max delay (s)	7.08	4.69	4.15	3.66
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	3.0	1.3	0.5	3.1
Max V/C Ratio	0.32	0.23	0.15	0.64

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Single Lane
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	236	0	0	0	236
EB US 30	55	144	66	0	265
NB IA 1	19	80	40	0	139
WB US 30	24	543	66	0	633
Total	334	772	172	0	--

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	8	8
EB US 30	8	8	8	8	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	--

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	136	265	139	638
Max delay (s)	7.30	3.89	4.05	9.66
Max LOS	A	A	A	A
Max 93th percentile Queue (Veh)	2.4	1.1	0.6	1.1
Max V/C Ratio	0.35	0.20	0.15	0.64

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Single Lane
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	226	182	49	0	458
EB US 30	55	0	0	0	55
NB IA 1	19	80	49	0	139
WB US 30	24	543	66	0	633
Total	334	815	146	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	0	0	0	0	0
EB US 30	0	0	0	0	0
NB IA 1	0	0	0	0	0
WB US 30	0	9	9	0	9
Average	0	0	0	0	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
l - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	55	139	633
Max delay (s)	7.08	3.58	3.61	8.70
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	2.0	0.5	0.5	2.3
Max V/C Ratio	0.32	0.05	0.13	0.62

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
AM Peak Hour
Single Lane
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turns	Total
SB IA 1	236	122	40	0	458
EB US 30	55	144	65	0	265
NB IA 1	13	80	40	0	139
WB US 30	24	0	0	0	24
Total	324	406	146	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	8	8	8	8	8
EB US 30	8	8	8	8	8
NB IA 1	8	8	8	8	8
WB US 30	9	9	9	9	9
Average	8	8	8	8	--

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	458	265	139	24
Max delay (s)	3.97	4.45	4.16	3.52
Max LOS	A	A	B	A
Max 95th percentile Queue (Veh)	1.2	1.3	0.5	0.5
Max W/C Ratio	0.21	0.22	0.15	0.03

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Single Lane

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	308	193	195	0	369
EB US 30	54	520	308	0	782
NB IA 1	134	278	66	0	468
WB US 30	75	210	32	0	317
Total	353	1159	444	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
F - Effective flares length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	369	782	468	317
Max delay (s)	5.15	19.95	27.68	6.22
Max LOS	A	C	D	A
Max 95th percentile Queue (Veh)	1.9	21.7	18.9	1.9
Max V/C Ratio	0.31	0.82	0.80	0.32

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Single Lane
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	103	0	0	0	103
EB US 30	94	539	201	0	782
NB IA 1	124	298	66	0	468
WB US 30	75	210	32	0	317
Total	353	1018	299	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	150.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	30.0	30.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	103	782	468	317
Max delay (s)	4.02	10.22	16.45	6.23
Max LOS	A	B	C	A
Max 95th percentile Queue (Veh)	0.5	6.2	9.7	1.9
Max V/C Ratio	0.11	0.70	0.70	0.32

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Single Lane
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	109	141	145	0	389
EB US 30	51	0	0	0	51
NB IA 1	124	376	65	0	468
WB US 30	75	216	32	0	317
Total	353	629	243	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	389	51	468	317
Max delay (s)	5.13	3.87	5.38	5.08
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.3	0.5	2.2	1.3
Max V/C Ratio	0.31	0.21	0.46	0.27

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2018
PM Peak Hour
Single Lane
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	105	141	145	0	389
EB US 30	54	930	281	0	762
NB IA 1	124	278	66	0	468
WB US 30	75	0	0	0	75
Total	353	949	412	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	8	8	8	8	8
NB IA 1	5	5	5	5	5
WB US 30	7	7	7	7	7
Average	6	6	6	6	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	75.0	75.0	75.0	75.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	389	762	468	75
Max delay (s)	4.22	17.74	27.71	4.73
Max LOS	A	C	D	A
Max 95th percentile Queue (Veh)	1.2	19.5	18.9	0.5
Max V/C Ratio	0.27	0.90	0.90	0.10

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
AM Peak Hour
Single Lane

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	17	435	3	3	457
EB US 30	4	32	4	0	40
NB IA 1	32	232	3	0	267
WB US 30	3	118	115	0	236
Total	56	1013	131	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	100.0	100.0	100.0	100.0
DI - Inscribed circle diameter (ft)	130.0	150.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	457	40	267	236
Max delay (s)	9.49	5.03	4.00	4.34
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	3.2	0.5	1.4	1.3
Max W/C Ratio	0.33	0.05	0.25	0.24

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
AM Peak Hour
Single Lane
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	17	0	0	0	17
EB US 30	4	32	4	0	40
NB IA 1	32	132	3	0	267
WB US 30	5	118	115	0	238
Total	58	362	122	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	200.0	200.0	200.0	200.0
D - Inscribed circle diameter (ft)	130.0	130.0	130.0	130.0
PHI - Conflict (entry) angle (deg)	20.0	30.0	20.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lag has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	25.00	25.00	25.00	25.00
Average Demand (Vsh/hr)	27	40	267	238
Max delay (s)	3.38	3.24	3.58	4.34
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	0.5	0.5	1.4	1.3
Max V/C Ratio	0.03	0.03	0.25	0.24

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
AM Peak Hour
Single Lane
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	17	631	9	0	657
EB US 30	4	0	0	0	4
NB IA 1	30	232	3	0	267
WB US 30	5	193	115	0	238
Total	58	981	127	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	13.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	100.0	100.0	100.0	100.0
D - Inscribed circle diameter (ft)	130.0	130.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	657	0	267	238
Max delay (s)	3.49	0.00	3.30	4.33
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	3.2	~1	1.4	1.3
Max V/C Ratio	0.55	0.00	0.24	0.24

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
AM Peak Hour
Single Lane
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	37	639	9	0	685
EB US 30	4	32	4	0	40
NB IA 1	32	332	3	0	267
WB US 30	5	0	0	0	5
Total	58	895	16	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	24.00	24.00	24.00	24.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	100.0	100.0	100.0	100.0
D - Inscribed circle diameter (ft)	140.0	140.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	685	40	267	5
Max delay (s)	6.77	4.58	4.00	3.33
Max LOS	A	A	A	A
Max 95th percentile Queue (Veh)	1.3	0.9	1.4	200.0
Max V/C Ratio	0.67	0.05	0.25	0.02

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
PM Peak Hour
Single Lane

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turns	Total
SB IA 1	8	520	31	0	559
EB US 30	3	114	14	0	131
NB IA 1	10	764	4	0	880
WB US 30	16	46	53	0	115
Total	157	1444	102	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
l' - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	180.0	100.0	100.0	200.0
D - Inscribed circle diameter (ft)	130.0	160.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	559	131	880	115
Max delay (s)	6.38	5.09	26.01	5.76
Max LOS	A	A	D	A
Max 95th percentile Queue (Veh)	1.5	0.5	36.0	0.5
Max V/C Ratio	0.52	0.17	0.88	0.15

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
PM Peak Hour
Single Lane
By-lane Results for Southbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	8	0	0	0	8
EB US 30	3	114	14	0	131
NB IA 1	130	764	4	0	898
WB US 30	16	46	53	0	115
Total	157	924	71	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
W - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
L - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	200.0	200.0	200.0	200.0
D - Inscribed circle diameter (ft)	130.0	160.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	8	131	898	115
Max delay (s)	3.10	3.43	22.89	5.77
Max LOS	A	A	C	A
Max 95th percentile Queue (Veh)	200.0	0.5	30.3	0.5
Max V/C Ratio	0.01	0.12	0.87	0.15

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
PM Peak Hour
Single Lane
By-lane Results for Eastbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	5	529	21	0	559
EB US 30	3	0	0	0	3
NB IA 1	130	764	4	0	898
WB US 30	15	45	55	0	115
Total	157	1330	88	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
F - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	100.0	100.0	100.0	100.0
D - Inscribed circle diameter (ft)	140.0	140.0	140.0	140.0
PHI - Conflict (entry) angle (deg)	30.0	30.0	30.0	30.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Percentage Intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	559	0	898	115
Max delay (s)	6.38	0.00	16.67	5.69
Max LOS	A	A	C	A
Max 95th percentile Queue (Veh)	1.5	0.1	22.6	0.5
Max V/C Ratio	0.52	0.00	0.92	0.15

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Year 2040
PM Peak Hour
Single Lane
By-lane Results for Westbound Yielding Right-turn Bypass

Volumes

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Total
SB IA 1	0	500	31	0	531
EB US 30	3	114	14	0	131
NB IA 1	130	764	4	0	898
WB US 30	16	0	0	0	16
Total	157	1398	49	0	-

Truck Percentages

From \ To	1st exit	2nd exit	3rd exit	U-Turn	Average
SB IA 1	5	5	5	5	5
EB US 30	5	5	5	5	5
NB IA 1	5	5	5	5	5
WB US 30	5	5	5	5	5
Average	5	5	5	5	-

Geometry and Analysis Results

Leg	SB IA 1	EB US 30	NB IA 1	WB US 30
V - Approach road half-width (ft)	12.00	12.00	12.00	12.00
E - Entry width (ft)	14.00	14.00	14.00	14.00
P - Effective flare length (ft)	130.0	130.0	130.0	130.0
R - Entry radius (ft)	100.0	100.0	100.0	100.0
D - Inscribed circle diameter (ft)	130.0	160.0	140.0	130.0
PHI - Conflict (entry) angle (deg)	20.0	20.0	20.0	20.0
Exit only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leg has bypass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Percentage intercept adjustment (%)	95.00	95.00	95.00	95.00
Average Demand (Veh/hr)	531	131	898	16
Max delay (s)	5.72	4.86	26.01	5.03
Max LOS	A	A	C	A
Max 95th percentile Queue (Veh)	1.5	0.5	36.0	0.5
Max W/C Ratio	0.49	0.15	0.88	0.02

ARCADY OPERATIONAL ANALYSIS DOCUMENTATION
STANDARD ROUNDABOUT CAPACITY MODEL

Residual Capacity

AM Peak Hour

AM							
	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity
Single Lane - 2040							
SB IA 1	3.2	9.49	0.65	A	7.11	A	33 % [SB IA 1]
EB US 30	0.5	5.03	0.05	A			
NB IA 1	1.4	4.00	0.25	A			
WB US 30	1.3	4.34	0.24	A			

With an increase of 33% traffic on all approaches, SB IA 1 will begin to experience failing results (LOS E, >35 sec of delay).

PM Peak Hour

PM							
	95% Queue (Veh)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity
Single Lane - 2040							
SB IA 1	1.5	6.38	0.52	A	16.59	C	4 % [NB IA 1]
EB US 30	0.5	5.09	0.17	A			
NB IA 1	36.0	26.01	0.88	D			
WB US 30	0.5	5.76	0.13	A			

With an increase of 4% traffic on all approaches, NB IA 1 will begin to experience failing results (LOS E, >35 sec of delay).

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co.	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2018			Analysis Time Period (hrs)	0.25		
Time Analyzed	AM Peak			Peak Hour Factor	0.92		
Project Description				Junsdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Number of Lanes (N)	0	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0
Lane Assignment	LT		T		LT		LT		TR		TR		LT		LT	
Volume (V), veh/h	0	66	144	55	0	66	548	24	0	40	80	19	0	40	182	236
Percent Heavy Vehicles, %	8	8	8	8	9	9	9	9	8	8	8	8	8	8	8	8
Flow Rate (v _{pc}), pc/h	0	77	169	65	0	78	649	28	0	47	94	22	0	47	214	277
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				2				2				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.5436	4.5436	4.9763		4.3276	4.3276	4.6453	4.3276			4.9763	4.9763
Follow-Up Headway (s)	2.5352	2.5352	2.6087		2.5352	2.5352	2.6667	2.5352			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h	116	130	65		727	28	77	86			261	277
Entry Volume veh/h	107	121	60		667	26	71	80			242	256
Circulating Flow (v _c), pc/h	339			218			293			774		
Exiting Flow (v _w), pc/h	238			696			171			292		
Capacity (c _{pc}), pc/h	1043	1043	1025		1180	1228	1031	1107			627	679
Capacity (c), veh/h	966	966	949		1082	1127	955	1025			580	628
v/c Ratio (x)	0.11	0.12	0.06		0.62	0.02	0.07	0.08			0.42	0.41

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	4.7	4.9	4.4		11.6	3.4	4.4	4.2			12.6	11.7
Lane LOS	A	A	A		B	A	A	A			B	B
95% Queue, veh	0.4	0.4	0.2		4.4	0.1	0.2	0.3			2.0	2.0
Approach Delay, s/veh	4.7			11.3			4.3			12.1		
Approach LOS	A			B			A			B		
Intersection Delay, s/veh LOS	9.7						A					

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co.	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2018			Analysis Time Period (hrs)	0.25		
Time Analyzed	PM Peak			Peak Hour Factor	0.92		
Project Description				Jurisdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Number of Lanes (N)	0	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0
Lane Assignment	LT		T		LT		TR		LT		TR		LT		TR	
Volume (V), veh/h	0	201	530	51	0	32	210	75	0	66	278	124	0	145	141	103
Percent Heavy Vehicles, %	8	8	8	8	7	7	7	7	5	5	5	5	5	5	5	5
Flow Rate (v _{pc}), pc/h	0	236	622	60	0	37	244	87	0	75	317	142	0	165	161	118
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				2				2				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.5436	4.5436	4.9763		4.3276	4.3276	4.6453	4.3276			4.9763	4.9763
Follow-Up Headway (s)	2.5352	2.5352	2.6087		2.5352	2.5352	2.6667	2.5352			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h	403	455	60		281	87	251	283			326	118
Entry Volume veh/h	373	421	56		263	81	239	270			310	112
Circulating Flow (v _c), pc/h	363			628			1023			356		
Exiting Flow (v _{ex}), pc/h	929			319			553			198		
Capacity (C _{pc}), pc/h	1021	1021	1128		833	887	527	595			960	997
Capacity (c), veh/h	945	945	1044		778	829	502	567			914	949
v/c Ratio (x)	0.40	0.45	0.05		0.34	0.10	0.48	0.48			0.34	0.12

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	8.3	9.1	3.9		8.7	5.3	15.9	14.4			7.6	4.9
Lane LOS	A	A	A		A	A	C	B			A	A
95% Queue, veh	1.9	2.3	0.2		1.5	0.3	2.5	2.5			1.5	0.4
Approach Delay, s/veh	8.4			7.9			15.1			6.9		
Approach LOS	A			A			C			A		
Intersection Delay, s/veh LOS	9.6						A					

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co.	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2018			Analysis Time Period (hrs)	0.25		
Time Analyzed	AM Peak			Peak Hour Factor	0.92		
Project Description				Jurisdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LT				LT				LTR				LT			
Volume (V), veh/h	0	66	144	55	0	66	548	24	0	40	80	19	0	40	182	236
Percent Heavy Vehicles, %	8	8	8	8	9	9	9	9	8	8	8	8	8	8	8	8
Flow Rate (v _{pc}), pc/h	0	77	169	65	0	78	649	28	0	47	94	22	0	47	214	277
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Critical Headway (s)		4.9763	4.9763		4.9763	4.9763		4.9763			4.9763	4.9763
Follow-Up Headway (s)		2.6087	2.6087		2.6087	2.6087		2.6087			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h		246	65		727	28		163			261	277
Entry Volume veh/h		228	60		667	26		151			242	256
Circulating Flow (v _c), pc/h	339			218			293			774		
Exiting Flow (v _{ex}), pc/h	238			696			171			292		
Capacity (c _{pc}), pc/h		977	1025		1105	1159		1023			627	679
Capacity (c), veh/h		904	949		1014	1063		948			580	628
v/c Ratio (x)		0.25	0.06		0.66	0.02		0.16			0.42	0.41

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		6.6	4.4		13.4	3.6		5.3			12.6	11.7
Lane LOS		A	A		B	A		A			B	B
95% Queue, veh		1.0	0.2		5.2	0.1		0.6			2.0	2.0
Approach Delay, s/veh	6.1			13.0			5.3			12.1		
Approach LOS	A			B			A			B		
Intersection Delay, s/veh LOS	10.8						B					

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co.	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2018			Analysis Time Period (hrs)	0.25		
Time Analyzed	PM Peak			Peak Hour Factor	0.92		
Project Description				Junsdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LT				LT				LTR				LT			
Volume (V), veh/h	0	201	530	51	0	32	210	75	0	66	278	124	0	145	141	103
Percent Heavy Vehicles, %	8	8	8	8	7	7	7	7	5	5	5	5	5	5	5	5
Flow Rate (v _{pc}), pc/h	0	236	622	60	0	37	244	87	0	75	317	142	0	165	161	118
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Critical Headway (s)		4.9763	4.9763		4.9763	4.9763		4.9763			4.9763	4.9763
Follow-Up Headway (s)		2.6087	2.6087		2.6087	2.6087		2.6087			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h		858	60		281	87		534			326	118
Entry Volume veh/h		794	56		263	81		509			310	112
Circulating Flow (v _c), pc/h	363			628			1023			356		
Exiting Flow (v _e), pc/h	929			319			553			198		
Capacity (c _{pc}), pc/h		953	1128		727	785		486			960	997
Capacity (c), veh/h		882	1044		680	734		463			914	949
v/c Ratio (x)		0.90	0.05		0.39	0.11		1.10			0.34	0.12

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		32.6	3.9		10.5	6.1		100.8			7.6	4.9
Lane LOS		D	A		B	A		F			A	A
95% Queue, veh		12.6	0.2		1.8	0.4		17.0			1.5	0.4
Approach Delay, s/veh	30.7			9.5			100.8			6.9		
Approach LOS	D			A			F			A		
Intersection Delay, s/veh LOS	39.3						E					

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2040			Analysis Time Period (hrs)	0.25		
Time Analyzed	AM Peak			Peak Hour Factor	0.92		
Project Description				Jurisdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LT				LT				LTR				LT			
Volume (V), veh/h	0	4	32	4	0	115	118	5	0	3	232	32	0	9	631	17
Percent Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Flow Rate (v _{pc}), pc/h	0	5	37	5	0	131	135	6	0	3	265	37	0	10	720	19
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Critical Headway (s)		4.9763	4.9763		4.9763	4.9763		4.9763			4.9763	4.9763
Follow-Up Headway (s)		2.6087	2.6087		2.6087	2.6087		2.6087			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h		42	5		266	6		305			730	19
Entry Volume veh/h		40	5		253	6		290			695	18
Circulating Flow (v _c), pc/h	861			273			52			269		
Exiting Flow (v _w), pc/h	84			138			270			851		
Capacity (c _{pc}), pc/h		573	579		1045	1048		1309			1049	1199
Capacity (c), veh/h		546	552		995	998		1246			999	1142
v/c Ratio (x)		0.07	0.01		0.25	0.01		0.23			0.70	0.02

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		7.5	6.6		6.1	3.7		4.9			14.9	3.3
Lane LOS		A	A		A	A		A			B	A
95% Queue, veh		0.2	0.0		1.0	0.0		0.9			5.9	0.0
Approach Delay, s/veh	7.4			6.1			4.9			14.6		
Approach LOS	A			A			A			B		
Intersection Delay, s/veh LOS	10.5						B					

HCS7 Roundabouts Report

General Information				Site Information			
Analyst	NRC			Intersection	IA 1 at US 30		
Agency or Co.	MSA			E/W Street Name	US 30		
Date Performed	4/27/2018			N/S Street Name	IA 1		
Analysis Year	2040			Analysis Time Period (hrs)	0.25		
Time Analyzed	PM Peak			Peak Hour Factor	0.92		
Project Description				Jurisdiction	Mt Vernon, IA		

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LT				LT				LTR				LT			
Volume (V), veh/h	0	14	114	3	0	53	46	16	0	4	764	130	0	31	520	8
Percent Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Flow Rate (v _{pc}), pc/h	0	16	130	3	0	60	52	18	0	5	872	148	0	35	593	9
Right-Turn Bypass	Yielding				Yielding				None				Yielding			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Critical Headway (s)		4.9763	4.9763		4.9763	4.9763		4.9763			4.9763	4.9763
Follow-Up Headway (s)		2.6087	2.6087		2.6087	2.6087		2.6087			2.6087	2.6087

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
	Left	Right	Bypass									
Entry Flow (v _e), pc/h		146	3		112	18		1025			628	9
Entry Volume veh/h		139	3		107	17		976			598	9
Circulating Flow (v _c), pc/h	688			893			181			117		
Exiting Flow (v _{ex}), pc/h	313			57			888			653		
Capacity (c _{pc}), pc/h		684	709		555	558		1147			1225	1302
Capacity (c), veh/h		652	675		529	531		1093			1166	1240
v/c Ratio (x)		0.21	0.00		0.20	0.03		0.89			0.51	0.01

Delay and Level of Service

Approach	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		8.1	5.4		9.5	7.2		27.4			8.9	3.0
Lane LOS		A	A		A	A		D			A	A
95% Queue, veh		0.8	0.0		0.7	0.1		13.2			3.0	0.0
Approach Delay, s/veh	8.0			9.2			27.4			8.8		
Approach LOS	A			A			D			A		
Intersection Delay, s/veh LOS	18.6						C					

**APPENDIX B – Colored Pavement Markings Product
Sheets**

Color - Safe™

Color Pavement Marking with Anti-Skid Surface



Color - Safe™

INCREASED SAFETY WITH COLOR PAVEMENT MARKINGS

Cities and municipalities throughout the world are looking for long-term solutions to color pavement markings. Color pavement markings increase safety by alerting motor vehicle operators of special use lanes and increasing visibility in all transportation modals.

Paint and epoxies do not have the bright color or durability needed and thermoplastic is expensive..... COLOR - SAFE™ IS THE SOLUTION

Color-Safe™ is an acrylic-based material with great adhesion to concrete and asphalt surfaces. It is available in a variety of high-definition colors and aggregate sizes; has excellent color retention; glass beads can be added for increased retro-reflectivity, and its fast cure time allows the surface to be opened to traffic in as little as one hour. Applications are capable of obtaining full cure in a wide range of temperatures and no special equipment is needed.

FEATURES AND ADVANTAGES

- Variety of Colors and Aggregate Sizes
- Durable Skid-Resistant Surface
- Alerts Drivers to Special-Use Traffic Lanes
- Excellent Color Retention
- Easy Application & Fast Cure
- Low Life Cycle Cost
- Strong Adhesion to Concrete & Asphalt Surfaces
- Enhances Traffic Calming



It is easy to apply and repair and has a low life-cycle cost.



Color - Safe™
Durable, High-Definition Color is
your solution to creating and
maintaining color pavements.

USES

BICYCLE PATHS

BUS LANES

CROSSWALKS

PEDESTRIAN PLAZAS

AIRFIELD MARKING

SCHOOL ZONES

TOLL LANES

SPEED ZONES

HAZARDOUS ROAD AREAS

AIRFIELD MARKINGS

UNIVERSITIES

HOSPITALS

PHYSICAL PROPERTIES

Properties	Unit of Measure	Test
Neat Resin		
Elongation	70%	ASTM D638
Hardness	15-20 shore D	ASTM D2240
Water Absorption	<0.25%	ASTM D570
Pot Life@72D F(22C)	15 Minutes	AASHTO T237
Solids Content	100%	ASTM D1844



1625 Spectrum Drive, Suite 100 / Lawrenceville, GA 30043
800.969.5103 / 770.962.2222 / Fax: 770.513.8881

CROSSWALK SAFETY



[PHOTO © Transpo Industries]

Sharing the road with Pedestrians

Transportation authorities around the world have recently been placing a greater emphasis on improving pedestrian safety and are finding MMA acrylic resin based road markings to be an ideal solution, creating visual awareness for all road users. In recent years the number of Americans who use walking as a regular mode of travel has risen to over 107 million. Without counting recreational trips, walking makes up roughly 10.9% of the total 388 billion trips taken by Americans each year. This rising trend makes it important to focus on the safety of the facilities available for pedestrians nationwide. Known for their high durability, increased wet-night visibility, skid resistance and optimal color

stability, contrast area markings are increasingly being used to apply bright crosswalks to high traffic areas. These markings not only offer increased safety to pedestrians, but also provide local authorities with a cost-efficient alternative to other road marking systems in the industry. Due to their high durability, road markings based on MMA acrylic resin cost less in maintenance and material costs over the extended lifecycle of the markings. In this newsletter, you will learn how the Colorado Department of Transportation is saving the lives of their pedestrians through a network of highly visible crosswalks using the MMA acrylic resin Color-Safe™ pavement marking and anti-skid surface.

Color-Safe™

Bright markings getting the attention of drivers



[PHOTO © Transpo Industries]

Color-Safe™ area markings were recently applied at three intersections along one of the busiest roads in Colorado to increase pedestrian safety. The color stability of the area markings and the retained retro reflectivity of the accent stripes are getting the attention of drivers passing by and are expected to reduce the number of pedestrian vs. vehicle accidents at these locations.

The Colorado Department of Transportation (CDOT) installed, Color-Safe™ bright red crosswalks this past summer at three major intersections in the Denver Metro Area (Colorado Boulevard & East Colfax Avenue, East 14th Avenue, and East Montview Boulevard). These red crosswalks and white accent stripes cover an area of 4,750 ft² (441.2 m²), with the largest of the three crosswalks spanning six lanes of traffic.

Saving lives one crosswalk at a time



The number of pedestrian vs. vehicle crashes have been documented by CDOT over the years and a decrease has been seen since the installation of bright red crosswalks at the various intersections in Colorado. Prior to 2008, when the red crosswalks were initially installed at the intersection of Colorado Boulevard and Louisiana Avenue, there was an average of two people struck each year by oncoming vehicles, with one year having five people struck. Since installed, the red crosswalks have alerted drivers and, as a result, there has only been three people hit within the past three years. Although more years of post-installation data is needed, CDOT is optimistic that the use of these area markings for visual awareness will continue to increase safety.

At the intersection of Colorado Boulevard and East Colfax Avenue, where Color-Safe™ was recently applied, there have been five people hit while crossing the road within the last three years. CDOT foresees that the newly applied crosswalks will have the same effect seen at the intersection of Colorado Boulevard and Louisiana Avenue. In addition to the interest generated by pedestrians and motorists traveling through these intersections, the red crosswalks based on wet-night visibility, skid resistance and optimal color sparked local news coverage in the months following their application. Highlighting the brightness and safety aspects of these markings, various local news stations recognized CDOT for their dedication to improving the safety of all road users at intersections in Denver.

In 2008, similar markings were applied to the intersection of Colorado Boulevard and Louisiana Avenue. Based on the reduction of crashes documented at these crosswalks, CDOT saw an opportunity to evaluate how a more durable area marking would perform at other intersections with high crash statistics. Having had experience using MMA acrylic resin road marking for various other applications and impressed with the thin millage at which the MMA acrylic resin area markings could be applied, CDOT determined this system would be the most beneficial system for the three additional crosswalks along Colorado Boulevard. "The new friction-grip material is more for durability," said Bryan Allery, CDOT Traffic Engineer, PE II. "We want that to stand out and to last longer."

CDOT has stated that the newly applied bright red crosswalks are getting the attention of drivers. They have received many calls commenting on the brightness of the markings, to which CDOT replied "We are glad you noticed. It's supposed to get your attention." The awareness generated by these crosswalks has led to a decrease in pedestrian vs. vehicle accidents since the first installation in 2008. "It's certainly not going to solve all the problems," Bryan Allery stated. "It does draw attention to motorists as they are approaching these crosswalks, and it's also proven through Colorado Boulevard and Louisiana Avenue that they are helping."



TRAN SAFE
transportation safety Products

Transpo Industries, Inc. manufactures a variety of innovative products and materials designed for improving road safety and bridge preservation. The company's reputation as an expert in rehabilitation, preservation and safety products has made Transpo a leading supplier since 1958.

www.transafeproducts.com

Color-Safe® PAVEMENT MARKING

Durable and High Definition Color

Color-Safe® is a Methyl Methacrylate (MMA) based material used for color pavement marking.

Color-Safe® is typically used for demarcation of bike lanes, pedestrian areas, bus lanes and other specially designated areas. A variety of supplied aggregates will create appropriate skid resistance for the application, vehicular traffic and specification requirements.

Color-Safe® can be applied by hand with squeegees and rollers or with automatic spray equipment and cures without requiring external heat sources.

Color-Safe® is capable of full cure in a wide range of temperatures allowing for a longer marking season.



PHYSICAL PROPERTIES*

Properties	Unit of Measure	Test
Neat Resin		
Tensile Strength	500-1000 psi (3.4-6.9 MPa)	ASTM D638 Type I
Elongation	>30%	ASTM D638 Type I
Hardness	55-60 Shore D	ASTM D2240
Water Absorption	<0.25%	ASTM D570
Pot Life @72°F (22°C)	15 Minutes	AASHTO T237
Solids Content	100%	ASTM D1644
Aggregate		
Hardness	7.0	Mohs Scale

*To be used as general guidelines only

Color-Safe® enhances your safety program with high visibility color and increased service life.



SAFER TRANSPORTATION THROUGH INNOVATION
1625 Spectrum Drive, Suite 100 / Lawrenceville, GA 30043 / 800.969.5103

Color-Safe® PAVEMENT MARKING

Features and Advantages

- Excellent Color Retention and Durability
- High Visibility Color Increases Motorist Awareness
- Available in a Variety of Colors and Aggregate Sizes
- Easy Application
- Fast Cure Time (30 min at 70° F)
- Wide Application Temperature Range (40°-100° F)
- Low Life Cycle Cost
- Ability to Adhere to Both Concrete and Asphalt Surfaces

Application Process

Surfaces receiving Color-Safe® must be thoroughly cleaned and free of all dirt. Contaminates that might interfere with the proper adhesion of the material must be removed by sand blasting or shot blasting.

Color-Safe® is made up of resin, powder hardener and aggregate. These components must be mixed thoroughly for uniform curing and performance.

Color-Safe® is applied by either the mixed resin and aggregate method or the spray/broadcast aggregate method. Refer to the technical data sheet for application details.

No special equipment is required for installation.

Applications

Transpo's Color-Safe® can be used as an anti-skid surface and/or for demarcation.

- Bike Lanes and Bike Boxes
- Pedestrian Refuge and Plaza
- Toll Lanes
- Bus Lanes
- Airfields
- Crosswalks
- Roundabouts
- High Friction Surface Treatments



Standard and Custom Colors

Transpo's Color-Safe® has many standard color options as well as custom colors available upon request.

- Bike Lane Green
- Bus Lane Red
- Buff
- Traffic Yellow
- White
- Black
- Pink
- Handicap Blue
- Orange
- Red



Need More Information?

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Lawrenceville, GA 30043
800.969.5103 / 770.962.2222
Fax: 770.513.8881

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SYRACUSE, NY

Color-Safe®



Color-Safe®

16 lanes - BEFORE Color-Safe



16 lanes - AFTER Color-Safe



**STANDARD COLORS
AND CUSTOM COLORS!**



Color-Safe®
Methyl Methacrylate (MMA)
Resin System

Why Choose Color-Safe® MMA over Thermoplastic?

COMPARISON

Color-Safe® MMA
vs.
Hot applied Thermoplastic



COLOR-SAFE® MMA



Applied Thermoplastic

Adhesion to Concrete	EXCELLENT	Poor
Life Cycle	6 - 10 YEARS	3 - 5 Years
Refresh or Removal	REFRESH	Full Removal
UV Stable	YES	No
Cure Time	20 - 40 MIN.	Wait for Cooling
Adhesion to Self	YES	No
Working Hazards	NONE	Potential Burns
Specialized Equipment Needed	NO	Yes

Call today to find out how cost effective Color-Safe® MMA can be.

TRANSAFE, INC
1625 Spectrum Drive, Suite 100
Lawrenceville, GA 30043
770.962.2222 / 800.969.5103

Color-Safe® is a Methyl Methacrylate (MMA) resin system used for pavement area markings and anti-skid surfacing. It is a plural component, liquid applied MMA and catalyst, capable of full cure in a wide range of temperatures without requiring external heat sources. Color-Safe® is typically used for demarcation of crosswalks, bicycle paths, bus lanes and other specially designated areas. It can also be used as a surface to enhance skid resistance on hazardous turns and other areas prone to accidents. It can be applied to either concrete or asphalt using two different methods: mixed resin/aggregate method or spray/broadcast aggregate method. Resin formulations are available in 98:2 and 1:1 ratios to accommodate different types of application equipment. If using glass beads, they must be coated for use with MMA materials.

Application Procedure

Surface Preparation: All surfaces that are to receive Color-Safe® must be thoroughly clean, dry, and free of all dirt, grease, and other contaminants that might interfere with proper adhesion. Clean the pavement surface using high sand blasting or shot blasting. All damaged or deteriorated surfaces must be repaired before applying Color-Safe®. The surface should be visibly dry and the moisture content should be tested according to ASTM D4263 (modified to 2 hours). New asphalt shall have been placed for a minimum of 30 days prior to installation of Color-Safe® and surface oils should not be present. The temperature of the pavement and air should be between 40°F-100°F and 5°F above the Dew Point temperature. Relative humidity should be 75% RH maximum. For colder or warmer application temperatures contact a Transpro representative for recommendations on hardener mix ratios.

Mixed Resin and Aggregate Application Method

Mixing and Application

Primer Application [For Concrete Applications ONLY]:

All areas to be coated with Color-Safe® should be masked prior to application. Mix the un-pigmented Color-Safe® primer and hardener (refer to Table 1 for appropriate hardener quantities) for approximately 30 seconds and apply it to the surface that will receive the Color-Safe®. Primer can be applied using 1/4" nap rollers. Application rate should be approximately 80 square feet per gallon however coverage on rough or porous surfaces will be less. After the primer is applied and before it cures, remove all masking.

Mixing: Transpro Color-Safe® resin comes in three components (Color-Safe® pigmented resin, powder hardener, and supplied pre-packaged aggregate). Thorough and complete mixing of these components with a drill mounted paddle mixer is vital for uniform curing and performance. Air/substrate temperature determines the amount of hardener used; refer to Table 1 for the appropriate amount of hardener to be added to the Color-Safe® resin. Using clean, dry plastic buckets, add hardener to Color-Safe® resin and mix until dissolved (approximately 30 seconds) and then add and thoroughly mix the pre-packaged aggregate. After mixing, the Color-Safe® must be applied to the pavement immediately.

Table 1: Hardener per 2 Gallons of Color-Safe® Primer or Resin

Temp °F(°C)	Weight %	Grams	Packets (120 g each)
40-59 (0-15)	3	360	3
60-89 (15-32)	2	240	2
90-100 (32-38)	1	120	1

Resin/Aggregate Application: Before mixing and applying the Color-Safe®/Aggregate apply the masking to the area to be coated. Pour the mixed material onto the pavement surface and spread evenly with 3/16" notched squeegees at a rate of approximately 24 square feet per gallon. The surface can be back rolled with 1/4" nap rollers to give a uniform even finish. After the application and before the material cures, remove the masking. At the onset of rain, installation shall cease until the substrate is sufficiently dry to the satisfaction of the engineer. Application of markings** must be completed before contamination of the substrate occurs.

Before applying any line striping or symbols; confirm compatibility of materials with manufacturer
Color-Safe® may be used for application of line striping and symbols



Mixing and Application

It is important to use the resin formulation that matches the mixing ratio of the equipment that will be used for the application.

Spray applications using a 98:2 formulation with equipment that does not automatically proportion the hardener requires the resin and hardener to be premixed. It is very important that small quantities be mixed as the time available to spray the material is limited and further reduced by high ambient temperatures. The Color-Safe® resin and the powder hardener should be mixed for 30 seconds before adding to the spray equipment. Refer to Table 2 for hardener mixing ratios. If there is an interruption in the spray application the equipment should be cleaned with solvent to prevent material from curing and creating clogging.

Spray applications using a 98:2 formulation with equipment that automatically adds proportioned hardener does not require premixing. The Color-Safe® resin is the same for all 98:2 applications however for this type of equipment the hardener will be a liquid. Random checks should be performed to make sure the hardener ratio is consistent. Application interruptions do not require the equipment to be cleaned prior to the resumption of application.

Spray applications using a 1:1 formulation with equipment that mixes equal parts of resin with hardener prior to the spray head require resin different than 98:2 material. Color-Safe® part A resin will be added to the equipment without any hardener added. Color-Safe® part B is a completely different resin and the powder hardener is to be added to this resin and mixed for 30 seconds prior to adding to the equipment. Refer to Table 3 for the hardener mixing ratios. Applications do not require the equipment to be cleaned prior to the resumption of application.

Primer Application [For Concrete Applications ONLY]:

All areas to be coated with Color-Safe® should be masked prior to application. Refer to Tables 2 and 3 for the appropriate hardener/primer mixing ratios. Application rate should be approximately 80 square feet per gallon however coverage on rough or porous surfaces will be less. After the primer is applied and before it cures, remove all masking. Immediately after primer application, broadcast the supplied aggregate onto the surface at a rate of 1/2 pound per square foot. After the aggregate is applied and before the material cures, remove all masking.

Base Coat/Aggregate Application [For Asphalt Applications ONLY]: All areas to be coated with Color-Safe® should be masked prior to application. Note that the Color-Safe® resin and hardener are identical for both pigmented base coat and pigmented top coat applications. Refer to Hardener Mix Ratio Tables for the appropriate hardener/resin mixing ratios. Base coat application rate should be approximately 60 square feet per gallon however coverage on rough or porous surfaces will be less. Under compacted asphalt will absorb the base coat and coverage could be 40 square feet per gallon or less. Immediately after base coat application, broadcast the supplied aggregate onto the surface at a rate of 1/2 pound per square foot, assuring all coated areas are covered with aggregate. After the Base Coat/Aggregate is applied and before it cures remove all masking.

Top Coat Application: Before applying the Color-Safe® top coat remove all un-bonded aggregate from the primed surface using brooms or dry compressed air. Reapply the masking in the area to be coated. Make sure that all of the broadcast aggregate is covered with the Color-Safe® resin top coat; application rate should be approximately 40 square feet per gallon. The surface can be back rolled with 1/4" nap rollers to give a uniform even finish. After the Color-Safe® is applied and before it cures, remove all masking. At the onset of rain, installation shall cease until the substrate is sufficiently dry to the satisfaction of the engineer. Application of markings** must be completed before contamination of the substrate occurs.

Before applying any line striping or symbols; confirm compatibility of materials with manufacturer
Color-Safe® may be used for application of line striping and symbols

Table 2: Hardener per Gallon of Color-Safe® Primer and Resin (98:2 spray equipment without automatic proportioning)

Temp °F(°C)	Weight %	Grams	30 g Packets
40-59 (4-15)	4-3	240-180	8-6
60-89 (15-32)	2-1	120-60	4-2
90-100 (32-38)	1-.5	60-30	2-1

Table 3: Hardener per Gallon of Color-Safe® Primer and Resin (1:1 spray equipment)

Temp °F(°C)	Weight %	Grams	120 g Packets
40-59 (4-15)	8-6	480-360	4-3
60-89 (15-32)	6-4	360-240	3-2
90-100 (32-38)	2	120	1

Table 4: Physical Properties* of Color-Safe®

Property	Unit of Measure	Test
Resin		
Elongation	30% min	ASTM D638 Type I
Hardness	55-60 Shore D	ASTM D2240
Water Absorption	0.25% max	ASTM D570
Pot Life	15 minutes @ 72°F (22°C)	AASHTO T237
Flash Point	50°F (10°C)	ASTM D1310
Solids Content	99%	ASTM D1644
Aggregate		
Specific Gravity	2.65	ASTM C128
Hardness	7.0	Mohs Scale

*To be used as general guidelines only

Storage

Materials shall be kept in dry protected areas between 40°F - 80°F out of direct sunlight, protected from open flame. Hardener component shall be stored separately from other materials. Manufacturer's specific label instructions and prudent safety practices for storage and handling shall be followed at all times. Materials shall be suitable for use for six months after the date of receipt when stored in accordance with the manufacturer's instructions.

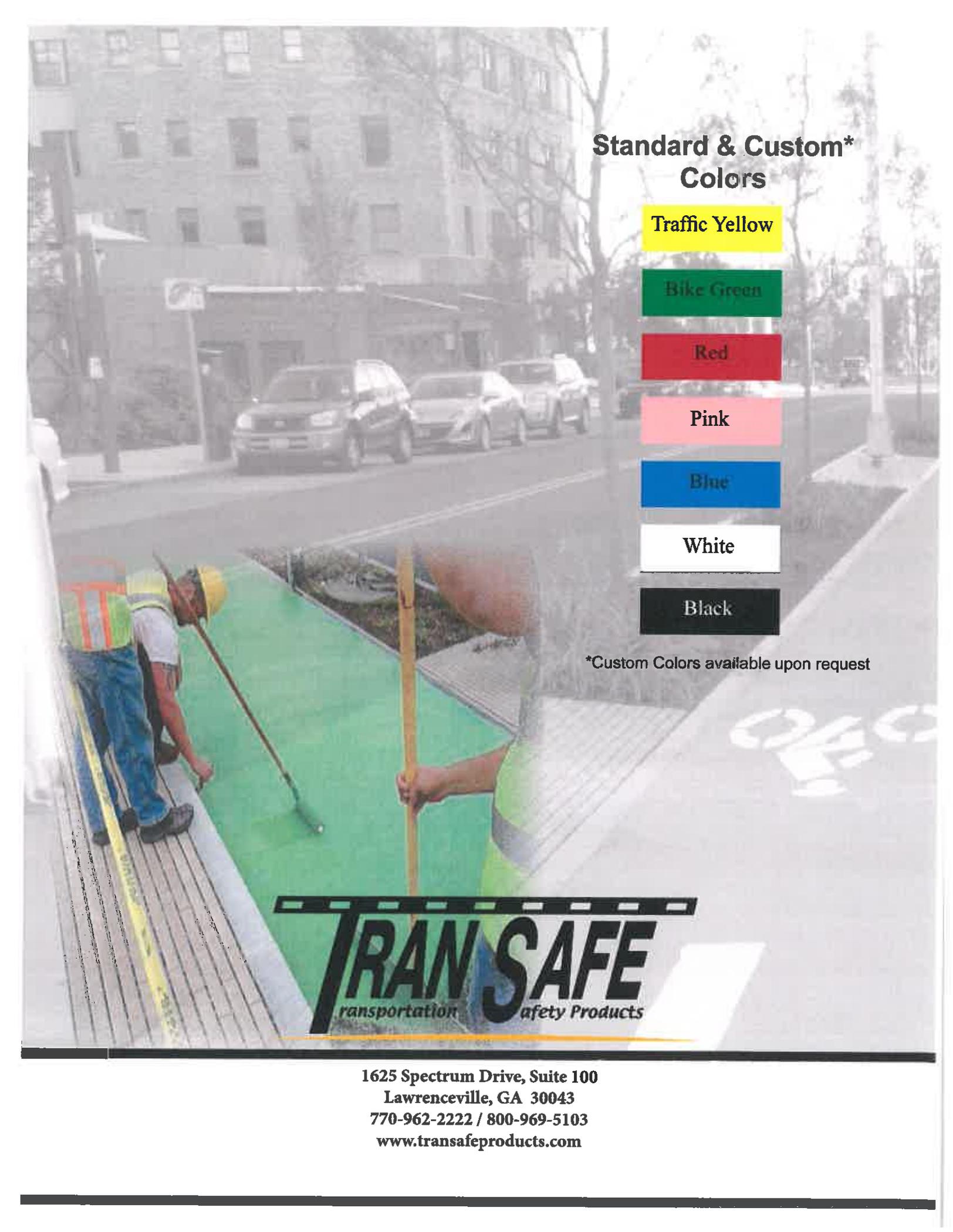
Caution

The binder shall be 100% reactive, solvent-free, acrylic vehicle. Blends with other resins or liquid vehicles shall not be permitted. Coarse aggregate shall be part of the formulation to provide for skid resistance.

Warranty

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of select raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of the product and no warranty is made as to the result of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product that proves to be defective. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.





Standard & Custom* Colors

Traffic Yellow

Bike Green

Red

Pink

Blue

White

Black

*Custom Colors available upon request

TRAN SAFE
ransportation safety Products

1625 Spectrum Drive, Suite 100
Lawrenceville, GA 30043
770-962-2222 / 800-969-5103
www.transafeproducts.com

MMA Area Markings

Specialized Lane delineation

PRODUCT DATA

Product Type: MMA Area Markings with Anti-Skid
 Product Code: 999660TC-KIT
 Product Color: Terra Cotta
 Effective Date: September 2014



Product Description:

MMA Area Marking products conveniently combine state-of-the-art Methyl Methacrylate resins with hardwearing aggregate and premium pigments to deliver an extremely durable, highly visible and color stable lane delineation treatment that meets the non-slip requirements needed for pedestrians, cyclists and vehicles.

Terra Cotta colored MMA Area Markings can be used to delineate bus lanes, or other specialty applications, where a durable area marking is required.

Product Advantages:

- Kitted for consistent on-site mixing and convenience
- Very Durable
- Color stable
- Fast back to traffic
- Non-slip surface
- Easy to apply
- Can be inlaid
- 100% solids

Packaging:

Each MMA area marking kit mixes to approximately 2.79 gallons and covers approximately 45-50 sq. ft. @ 90 mils build thickness.

One Kit includes:

- MMA Resin(Pre-pigmented) : 2 gallons / 7.57 liters
 - Supplied in 5 gallon pail for easy mixing
- MMA Aggregate: 1 – 25.0 lbs / 11.34 kg bag
- Catalyst*: 8 fl. oz. / 236 ml (.52 lbs / 0.24 g)

Storage:

Keep Cool. Keep in dry protected areas between 40°F – 80°F, out of direct sunlight and protected from open flame. Use within six months of receipt.

Product Characteristics

Test

Binder Resin

Density	8.1 +/- .35	Lbs/Gal
Tensile	> 400 psi	ASTM D638
Elongation	> 180%	ASTM D638
Flash Point	> 10°C	ASTM D1310

Aggregate

Hardness	9	Mohs Scale
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Preferential Lane Treatment

Density	18.5 +/- 0.5	Lbs/Gal
Build Thickness	90 +/- 10	Mils
VOC	< 100	Grams/Liter
Pot Life	~15min	AASHTO T237
Solids	> 99% (cured)	ASTM D2369
Skid	> 60	ASTM E303
Hardness	50-60	ASTM D2240
Water Absorption	< 0.25%	ASTM D570
Cure Time	< 30	Minutes

Other:

*Amount of catalyst used is dependent on ambient and road temperatures. Each kit is supplied with the maximum amount of catalyst that would be required. Refer to Application Instructions.

The product data offered herein is, to the best of our knowledge, true and accurate, but all recommendations are made without warranty, expressed or implied. Because the conditions of use are beyond our control, neither Ennis-Flint nor its agents shall be liable for any injury, loss or damage, direct or consequential, arising from the use or the inability to use the product described herein. As Ennis-Flint has neither control over the installation of product described herein nor control of the environmental factors the installed markings are subjected to, there is no guarantee as to the durability or the retroreflective properties of any marking system applied. No person is authorized to make any statement or recommendation not contained in the Product Data, and any such statement or recommendation, if made, shall not bind the Corporation. Further, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents, and no license under the claims of any patent is either implied or granted.



ENNIS-FLINT
 A Traffic Safety Solutions Company

800.331.8118

sales@ennisflint.com

www.ennisflint.com

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031914

APPENDIX C – Educational Brochure Examples



Sample Turning Movements
 Right Turn / Continue Straight
 Continue Straight / Left Turn / U-turn

Driving a Roundabout Turn by Turn

- ▶ Observe all standard road rules, including yielding for pedestrians in crosswalks.
- ▶ To safely and efficiently drive a roundabout:
 - Slow down.
 - Read advance signing and choose correct lane.
 - Yield to traffic in all lanes on your left before entering.
 - Stay in your lane to your exit.

Always obey the signs and markings

As you get closer to the roundabout entrance, it is very important to observe the signs and arrows to determine which lane to use before entering a roundabout. Signs above the road and white arrows on the road will show the correct lane to use.



Roundabout ahead, slow down.



Guide signs near the entry to a roundabout show lane designations.



Yield to all traffic in the roundabout.



Roundabout traffic travels one-way.

How to Drive Through a Roundabout

CHOOSE YOUR LANE

BEFORE ENTERING A ROUNDABOUT



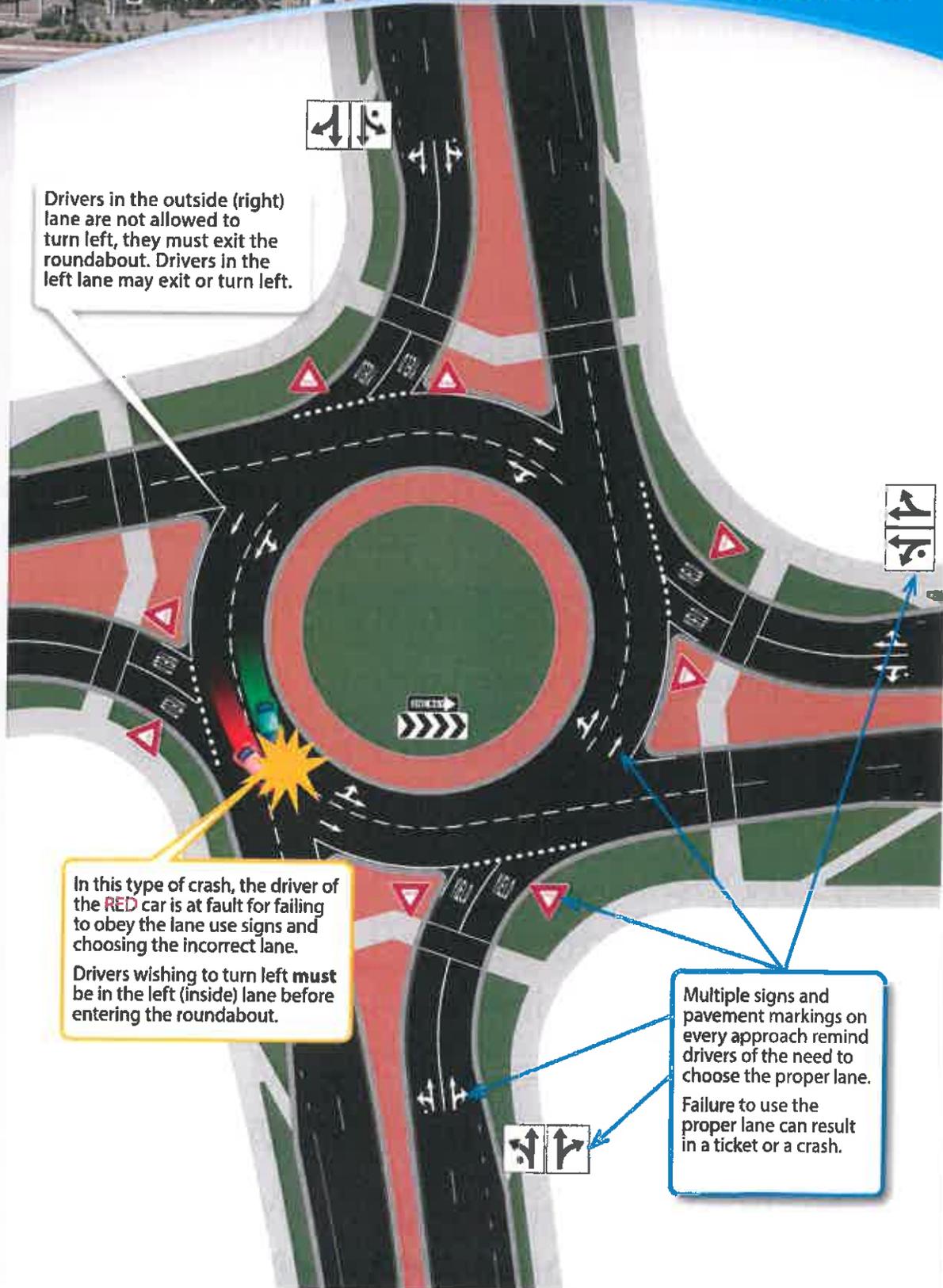
Drivers in the outside (right) lane are not allowed to turn left, they must exit the roundabout. Drivers in the left lane may exit or turn left.

As with any other intersection, the proper lane must be chosen before entering a roundabout.

In advance of the roundabout, signs and pavement markings will always indicate which lanes may be used for the direction you want to go.

Keep left to turn left through the roundabout and keep right to turn right.

Never change lanes within a roundabout.



In this type of crash, the driver of the RED car is at fault for failing to obey the lane use signs and choosing the incorrect lane.

Drivers wishing to turn left must be in the left (inside) lane before entering the roundabout.

Multiple signs and pavement markings on every approach remind drivers of the need to choose the proper lane. Failure to use the proper lane can result in a ticket or a crash.



Ourston

MSA

PROFESSIONAL SERVICES

How to Drive Through a Roundabout

ALWAYS YIELD TO ALL CIRCULATING TRAFFIC



KEY

-  Stopped/At Fault
-  Yielding
-  Circulating

YIELD

The "Golden Rule" of roundabouts.

Drivers entering a roundabout must yield to circulating traffic, pedestrians and bicyclists.

Drivers in the circle have the right of way. A motorist approaching a roundabout should wait for a safe gap in traffic before entering.

Drivers enter only when there is a safe gap in traffic.

Drivers must yield to pedestrians and bicyclists using the crosswalks.

Drivers must yield to all traffic coming from the left.

Circulating traffic has the right of way. Continue to your exit and do not stop within the roundabout.

The entering driver (red) is at fault due to failure to yield to the circulating vehicle (green). The driver in the inside lane of the roundabout can either exit or continue circulating. Entering vehicles must yield to all traffic coming from the left.



Ourston



PROFESSIONAL SERVICES

K. Reports-Received/File



**Mount
Vernon**
IOWA

Council:

**Eric Roudabush
Marty Christensen
Scott Rose
Tom Wieseler
Stephanie West**

**Chris Nosbisch, City Administrator
Douglas Shannon, Chief of Police**

Jamie A. Hampton, Mayor

**MAY 2018
POLICE REPORT**

Vehicle Collisions

There were 9 reported collisions in May. The first occurred in Cornell College Parking Lot H near College Blvd. This collision resulted when a parked vehicle was left in neutral and rolled back and collided with another unoccupied vehicle. Damage was estimated at \$4,500. The second collision occurred at Hwy 30 & Willow Creek Rd. This collision occurred when a vehicle travelling eastbound on Hwy 30 slowed to turn onto Willow Creek Rd. Traffic behind this vehicle slowed. A vehicle in traffic failed to slow and collided with the vehicle in front of his, causing the vehicle to enter the westbound lane of traffic and collide with another vehicle head-on. Damage was estimated at \$20,000 and two of the drivers were transported to area hospitals for injuries. The third collision occurred at the Hwy 1 & 30 roundabout and resulted when a vehicle travelling west on Hwy 30 failed to yield to traffic in the roundabout that was proceeding north on Hwy 1. Damage was estimated at \$13,500 and one driver reported minor injury, but refused medical transport. The fourth collision occurred in the Mount Vernon Middle School parking lot. This collision occurred when a vehicle backing out of a parking space collided with a vehicle that was parked in a no parking area. Damage was estimated at \$2,000 and no injuries were reported. The fifth collision occurred at Hwy 30 & 1st Street East. This collision was occurred when a vehicle travelling east (south) on 1st Street was stopped at the stop sign at Hwy 30, waiting to turn left onto Hwy 30 eastbound. While waiting for traffic to clear the driver became impatient, and decided to turn west onto Hwy 30. While doing so, the driver collided with the stop sign & barrel and destroyed the sign and barrel. The driver left the scene, however was observed by a witness who reported the incident. The driver and vehicle were identified. Damage was \$1,650 and no injuries were reported. The sixth collision occurred in the 300 block of 1st Street East when the driver of a moped travelling west on 1st St E lost control and was thrown from his moped. The driver sustained serious injury and was transported to the hospital by ambulance. Damage was estimated at \$1,500. The seventh collision occurred at the intersection of 7th Ave & 2nd St NW when a vehicle was turning onto 2nd Street and cut the corner to sharp, colliding with a parked vehicle. Damage was estimated at \$500 and no injuries were reported. The eighth collision occurred on College Blvd North when a vehicle was pulling into a parking spot and struck a vehicle parked next to this spot. Damage was estimated at \$2000 and no injuries occurred. The ninth collision occurred on in the parking lot behind 201 1st St NW. While the owner's vehicle was parked in her lot, another vehicle struck passenger side quarter panel causing approximately \$1,000 damage, and left the scene without reporting the collision. This case remains under investigation.

Incidents/Arrest

There were 24 reported incidents in May. Incidents included: Attempting to elude, fraudulent registration, public intoxication, criminal mischief, possession of controlled substance, possession of drug paraphernalia, found drugs, theft, assault, violation of a protective order, domestic abuse, hit & run, towed vehicle, stolen vehicle, theft of bike, informational report, harassment and criminal mischief.



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Jamie A. Hampton, Mayor

There were 12 arrests in May. Arrests occurred for Eluding, fraudulent registration, no valid DL, public intoxication, possession of marijuana (x4), possession of drug paraphernalia (x7), theft 5th, and driving while barred.

Community Service:

- Chief Shannon participated in a second phase PSAP consolidation meeting on 5/14/2018 with all Linn County Departments to discuss PSAP consolidation and workgroup members for Phase II of the study.
- Officers assisted with Cornell Graduation on 5/13/2018
- Chief Shannon met with Curt Wheeler from ASAC regarding OWI prevention

Training:

- Officer Gehrke, Officer Blinks, and Chief Shannon became certified as trainers in the administration of NARCAN. Our department has partnered with the Iowa Harm Reduction Coalition and received free training a Naloxone kits for our department.
- Chief Shannon attended the Iowa Police Chiefs Association Conference in Coralville 5/23/18-5/25/18. Officer Mehlert received the 2017 Iowa Police Officer of the Year award during the conference banquet.

GTSB:

Officers did not work any STEP hours in May.

LISBON (28E Contracted Services):

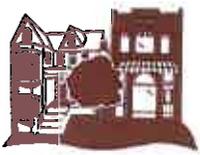
Per the 28E agreement our department provided the following service to Lisbon in May 2018:

- Patrol: 2,480 minutes
- Calls for service: 352 minutes (9 calls for service)
- Administrative time: none

Total time for May: 47.2 hours x \$40/hr. = \$1,888.00

Respectfully Submitted,

Chief of Police



Public Works Report

6/18/18

Alley Maintenance

Crews have finished placing concrete near the Liberty Iron Works building. This alley has been an issue for over 12 months. Tile was placed under the slab in 2 different areas that should help drain any water that would infiltrate under the slab. One of the goals for this alley would be to have our crack sealing company seal the alley to help prevent water from infiltrating the subgrade. The slab is 6 inches thick with rebar place every 2 feet. This probably wouldn't have been attempt prior to the city hiring our Lead Operator Eldon Downs. He took the lead on this project and had a lot of tips and tricks along the way as we formed and placed the concrete. It made the project flow that much smoother having someone with concrete experience. I have added pictures of the project.

Streets

Streets have been swept in all quadrants of town.

Parks

The garages in the parks have had an emergency garage door release added to them. Currently the city has 3 utility garages with electric garage door openers. When we lose power, we have no access to the garage, or if a breaker would be tripped for some reason. The emergency release allows us access even when we have no power.

Gardens

Jayne has continued to plug away at the gardens around town. They are looking incredible, if



you haven't been to the Pool or Memorial Park it's worth the walk. Jayne has added over 108 hostas to Memorial Park. Some have been donated by Kristi Clark, and Jayne herself. Jayne has done a great job of reaching out to residents that want to donate plants and will place them tastefully in the parks. Jayne has also taken upon herself to add some nice plantings to the Mary Meeker Playground area at Memorial Park. Around the water tower some bed balm and cone flowers were added they are pollinator friendly.



**Mount
Vernon**
IOWA

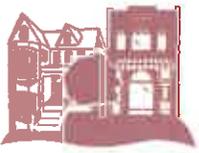
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Paul Tuerler
Marty Christensen
Scott Rose
Tom Wieseler

Parks and Recreation Department
Directors Report
May 15 2018 – June 15 2018

Parks

- **Jayne DeWitte has been working hard beautifying the various City-owned flower gardens around town. Hats off to Jayne's dedication and work on continuing to make these look great and public works staff for helping.**
- **V&K sent cost estimates for the Nature Park Trail in the form of a couple of options. Park and Rec will review these options at the next meeting on June 19.**

Sports

- **All T-ball, Coach Pitch, Player Pitch and Blastball programs are running smoothly and will end week of June 26th.**
- **Fall Flag Football (Grades 1-6) and Fall Soccer (Ages 4 – 6th Grade) registration will begin July 23rd.**

Pool

- **Pool attendance has been great. Warm temperatures are helping attract many people to the pool this summer so far. Might be best first half June attendance in a long time.**
- **Staff held a joint training on June 11th with the MVL Ambulance Service. Various topics were covered with all pool staff including Emergency Action Plans.**

Misc

Events and Classes

- **Summer Camps/Classes are going well. Beginning Cake Decorating and Safety in the Kitchen have been well received. Advanced Cake Decorating and Appetizers classes will run this week. Archery Camp and Lego Camp registrations remain strong at this time.**



LMVAS STRATEGIC PLAN FY2019-FY2021

LISBON-MOUNT VERNON AMBULANCE SERVICE
730 FIRST STREET SE, MOUNT VERNON, IA 52314

EXECUTIVE SUMMARY

In November 2017, the Lisbon-Mount Vernon Ambulance Service (LMVAS) Board of Directors decided to engage in a multi-step assessment and planning process that resulted in a comprehensive strategic plan for the service. Seeking to position itself for long-term sustainability, the organization enlisted the assistance of a facilitator to provide counsel throughout process on a voluntary basis. To support collaboration and communication throughout this process, the facilitator utilized the assistance of a Strategic Planning Committee that included members appointed by each of the three key entities within LMVAS: LMVAS Board of Directors, LMVAS Executive Leadership, and the LMVAS Volunteer Association Council.

The process included:

- internal assessment (interviews and survey) to identify current LMVAS strengths and weaknesses (Board, EMS Director, Volunteers, Community Members, EMS Partners, LMVAS Students)
- strategic planning survey (Board, EMS Director, Volunteers)
- workshop (Board, EMS Director, Volunteer Council)
- taskforces for primary activity areas (Business Model & Operations, EMS Education, Community Partnerships & Engagement)

The process was intentional about gathering information from a variety of sources and individuals that would help provide important insight into LMVAS's future direction.

The following strategic plan was approved by a majority vote of the LMVAS Board of Directors on June 12, 2018.

SERVICE OVERVIEW

The Lisbon-Mount Vernon Ambulance Service (LMVAS) was established in 1973. The service provides emergency medical services over a 150-square mile area, serving a population of more than 6,000 residents – including Cornell College.

The service operates two fully-equipped ambulances and is licensed by the State of Iowa at the EMT-P level – minimal staffing. LMVAS has been in continuous operation since July 1974, serving over 400 patients annually.

LMVAS is owned by the cities of Lisbon and Mount Vernon. The service is an Iowa 504A nonprofit corporation and is currently applying for 501C3 status. A nine-member Board of Directors oversees financial management of the service, with members appointed annually (four individuals appointed by each city and one volunteer appointed by volunteer membership). Operational management of the service falls under a full-time EMS Director. A Medical Director supervises the medical operations of LMVAS, consistent with all applicable laws and regulations. LMVAS emergency medical service providers include an EMS Director and a cohort of volunteers, currently comprised of 22 individuals.

MISSION STATEMENT

To provide professional and community-oriented emergency medical services to the communities of Lisbon and Mt. Vernon and surrounding areas.

VISION STATEMENT

To be a leader in EMS excellence and maintain public trust through the delivery of professional, compassionate care to those we serve.

STRATEGIC PRIORITIES: FY2019 – FY2021

BUSINESS MODEL & OPERATIONS

GOAL 1: Continue the development of financial stability and sustainability of the organization.

GOAL 2: Address current and future staffing needs.

GOAL 3: Employ effective leadership practices that will allow the service to implement and sustain positive change.

GOAL 4: Create an internal working environment that is positive, welcoming, and supportive.

GOAL 5: Improve service-wide collaboration through timely, clear, and concise communications.

EMS EDUCATION

GOAL 6: Provide consistent and effective education and training to all personnel.

GOAL 7: Enhance the skill levels of all personnel.

COMMUNITY PARTNERSHIPS & ENGAGEMENT

GOAL 8: Improve community awareness and engagement.

GOAL 9: Enhance relationships with EMS partners.

BUSINESS MODEL & OPERATIONS: OUTLINE

GOAL 1: Continue the development of financial stability and sustainability of the organization.

Goal Manager: EMS Director

Summary: Without financial stability, the organization will not be sustainable.

	Objective	Owner	Timeline	Budget Required
1	Fully develop and maintain a comprehensive improvement plan (CIP).	EMS Director	Ongoing	\$50,000
2	Form a Fundraising Committee. This committee will be responsible for developing, implementing, and maintaining fundraising policies and procedures for the service and seeking fundraising opportunities from a variety of sources.	EMS Director	12/31/18	N/A
3	Identify potential revenue sources. This review should include the following: <ul style="list-style-type: none"> • Rate adjustment analysis • Non-emergent transports • Balanced billing/self-insured • Hospital support for ambulance services 	EMS Director	6/30/19	\$5,000
4	Obtain 501c3 status.	EMS Director	6/30/20	Less than \$500

GOAL 2: Address current and future staffing needs.

Goal Manager: Board President and EMS Director

Summary: Balanced staffing for 24/7/365 coverage is key to the success of the organization and to serving our community.

	Objective	Owner	Timeline	Budget Required
1	Form and utilize a Hiring Committee to define roles and responsibilities of paid staffing positions.	Board President	9/30/18, In progress	N/A
2	Complete a comprehensive staffing needs assessment. This assessment should consider historical staffing shortages, peak volume (days of the week, times of day), succession planning, potential growth/increased need in the community, and benchmarking of comparable services.	Hiring Committee	12/31/18, In progress	N/A
3	Develop a comprehensive volunteer recruitment and retention strategy.	Volunteer Council	12/31/18	TBD
4	Develop and maintain relationships with volunteer coordinators/stakeholders at local colleges and universities by meeting with those individuals at a minimum of once per year.	EMS Director	12/31/18, Ongoing	N/A
5	Evaluate volunteer member benefits to determine if additional or revised benefits will aid in recruitment and retention.	Volunteer Council	6/30/19	TBD

GOAL 3: Employ effective leadership practices that will allow the service to implement and sustain positive change.

Goal Manager: Board President

Summary: Effective management and leadership practices should be implemented and maintained throughout the organization (e.g., Board of Directors, Medical Director, EMS Director, Volunteer Council).

	Objective	Owner	Timeline	Budget Required
1	Improve onboarding processes for new board members to ensure all board members have the knowledge and resources to support effective decision-making.	Board Vice President	12/31/18	N/A
2	Develop a clear board member role description to ensure interested and appointed individuals are fully aware of their expectation and responsibilities.	Board President	12/31/18, In progress	N/A
3	Publicly post board openings, in a similar manner to how other city-appointed boards are advertised. This will allow broader communication to the public about opportunities to serve on the LMVAS Board.	Board President	12/31/18	N/A
4	Implement and maintain an annual performance review process for all paid personnel.	Board President	12/31/18, In progress	N/A

GOAL 4: Create an internal working environment that is positive, welcoming, and supportive.

Goal Manager: EMS Director and Volunteer Council

Summary: An effective internal working environment supports collaboration, recruitment, and retention.

	Objective	Owner	Timeline	Budget Required
1	Identify team building opportunities.	EMS Director	6/30/19	TBD
2	Develop a comprehensive volunteer engagement strategy.	Volunteer Council	6/30/19	TBD

GOAL 5: Improve service-wide collaboration through timely, clear, and concise communications.

Goal Manager: EMS Director

Summary: Quality communication supports efficient business operations.

	Objective	Owner	Timeline	Budget Required
1	Develop a weekly update email communication for non-urgent matters.	EMS Director	9/30/18	N/A
2	Evaluate frequency of all-volunteer meetings.	Volunteer Council	12/31/18	N/A

EMS EDUCATION: OUTLINE

GOAL 6: Provide consistent and effective education and training to all personnel.

Goal Manager: EMS Director

Summary: All personnel must have comprehensive and consistent education to maintain patient care standards.

	Objective	Owner	Timeline	Budget Required
1	Review and revise existing orientation processes to increase consistency and effectiveness.	EMS Director	12/31/18, In progress	N/A
2	Refine and launch the field training officer program.	EMS Director	12/31/18	N/A
3	Create an annual training calendar with pre-defined education offerings.	EMS Director	12/31/18	N/A
4	Provide monthly hands-on training opportunities.	EMS Director	Ongoing	TBD

GOAL 7: Enhance the skill levels of all personnel.

Goal Manager: EMS Director

Summary: Continuing to enhance skill levels of all personnel directly impacts patient care and service effectiveness within the community.

	Objective	Owner	Timeline	Budget Required
1	Review the Educational Loan Policy.	Board President	9/30/18	N/A
2	Research and identify new opportunities to enhance skill levels of personnel.	EMS Director	12/31/18	N/A
3	Develop an annual scholarship program for volunteer education opportunities.	Volunteer Council	12/31/18	TBD
4	Host an annual skills day in a format that will encourage broad attendance (e.g., skills obstacle course).	EMS Director	12/31/19	TBD

COMMUNITY PARTENRSHIPS & ENGAGEMENT: OUTLINE

GOAL 8: Improve community awareness and engagement.

Goal Manager: EMS Director

Summary: LMVAS exists to serve its community. Awareness of the benefits the service provides to community members and continual engagement are important to serving our primary stakeholders.

	Objective	Owner	Timeline	Budget Required
1	Have LMVAS information available at both city halls to provide quick info about the service to citizens, as well as application info.	EMS Director	9/30/18	\$100 (printing)
2	Partner with Fire Safety Week in the fall to do joint presentations with the fire departments to expose LMVAS to local schools. (An alternative is to do this during EMS Week in May.)	EMS Director	October 2018/2019/2020	\$300 (safety books/handouts)
3	Develop an annual community engagement plan to include community social and educational events, marketing, and communications with leadership of both cities.	EMS Director	12/31/18	N/A
4	Form a relationship with the Community Development Group to determine the most effective ways to engage with the community through this resource.	EMS Director	12/31/18	N/A
5	Organize a Safety Fair in coordination with fire and police departments and other community partners, with the goal to educate the community about EMS and what our services do within the community. (Potentially also partner with local doctor's offices, Alliant, railroad, etc.)	EMS Director	12/31/19	\$200 (materials and/or advertising)

GOAL 9: Enhance relationships with EMS partners.

Goal Manager: EMS Director

Summary: Effective collaboration with EMS partners is essential to quality patient care.

Objective	Owner	Timeline	Budget Required
<p>1 Implement a process to share important personnel information with EMS partners (e.g., name, photo, and certifications of new LMVAS members; new member certifications; departures). Share this information up to once per month.</p>	<p>EMS Director</p>	<p>9/30/18</p>	<p>N/A</p>
<p>2 Appoint a point person from each local EMS organization (i.e., LMVAS, fire departments, police departments) to coordinate shared training up to once per quarter.</p>	<p>EMS Director and Volunteer Council</p>	<p>12/31/18</p>	<p>N/A</p>
<p>3 Jointly organize social activities with local EMS partners up to three times per year (rotating hosts between LMVAS, MVFD, LFD).</p>	<p>EMS Director and Volunteer Council</p>	<p>12/31/19</p>	<p>\$100</p>

STRATEGIC PLANNING COMMITTEE MEMBERS

- Sarah Clough, LMVAS Volunteer & Facilitator
- Lori Lynch, LMVAS Board of Directors
- Nikki Sporrer, President & Board Representative, LMVAS Volunteer Association; Interim LMVAS EMS Director
- Jules Scadden, Former LMVAS EMS Director (departed LMVAS May 2018)

STRATEGIC PLANNING TASKFORCE MEMBERS

BUSINESS MODEL & OPERATIONS

- Ian Kiefer, Chair
- Dan Rogers
- John Schultz
- Doug Shannon

EMS EDUCATION

- Terri Durgin, Chair
- Eric Hansen
- Michelle Omar
- Jim Wallace

COMMUNITY PARTNERSHIPS & ENGAGEMENT

- Derek Boren, Chair
- Dom Fleming
- Lori Lynch
- Nikki Sporrer

INTERNAL ASSESSMENT SURVEY & INTERVIEWS

An assessment survey was distributed to 93 individuals in January 2018, including community members, EMS partners, LMVAS Board members, LMVAS staff/volunteers, former LMVAS staff/volunteers, and LMVAS students. Seventy-two individuals (77 percent) responded to the survey. A total of seven interviews were conducted in January 2018 with Board members, staff/volunteers, and community members.

STRATEGIC PLANNING SURVEY

The strategic planning survey was distributed to 35 individuals in April 2018, including all LMVAS Board members and staff/volunteers. Sixteen individuals (46 percent) responded to the survey.

2018 LMVAS BOARD OF DIRECTORS

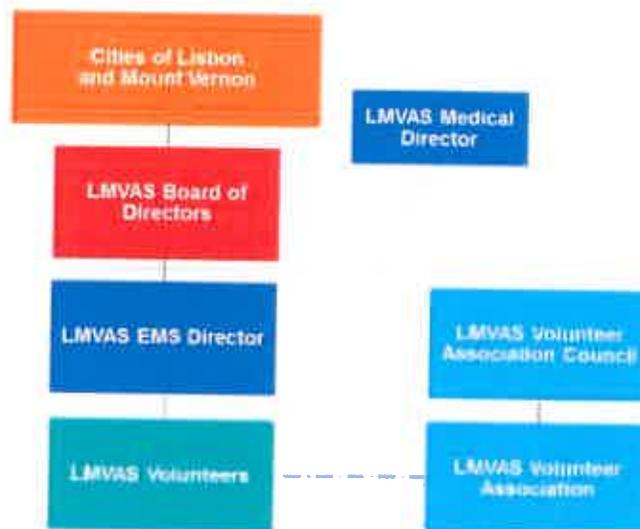
- Doug Shannon, President
- Derek Boren, Vice President
- John Schultz, Treasurer
- Lisa Cannon, Secretary
- Julie Light
- Lori Lynch
- Rick Scott
- Jeff Silver
- Nikki Sporrer, Volunteer Association Board Representative

2018 LMVAS VOLUNTEER ASSOCIATION COUNCIL

- Nikki Sporrer, President
- Sarah Clough, Vice President
- Sydney Cooper, Treasurer
- Dan Rogers, Secretary

BACKGROUND INFORMATION

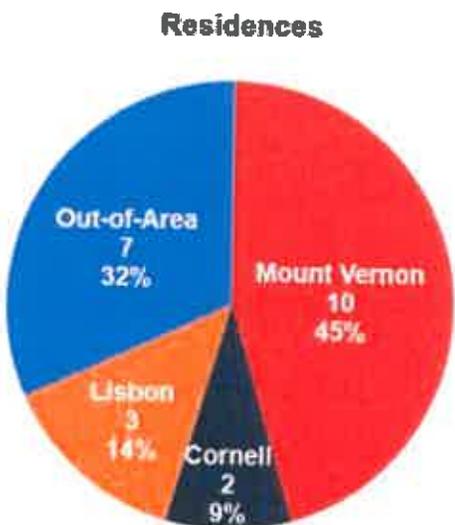
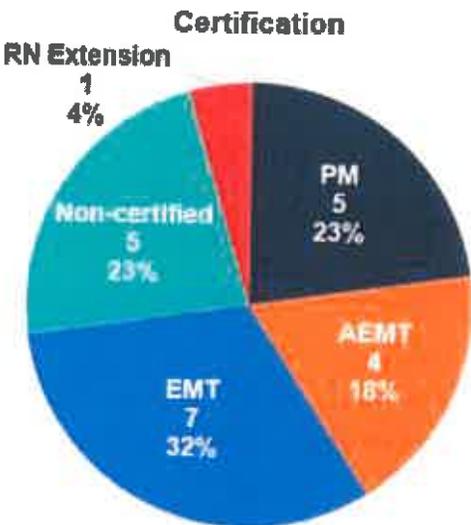
Organizational Chart



Service Members



- **Medical Director:** Dr. Anthony Carter
- **Interim EMS Director:** Nikki Sporrer, RN (paid staff)
- **Total Members:** 22* (as of 6/12/18)



*1 paid staff

2017 Activity

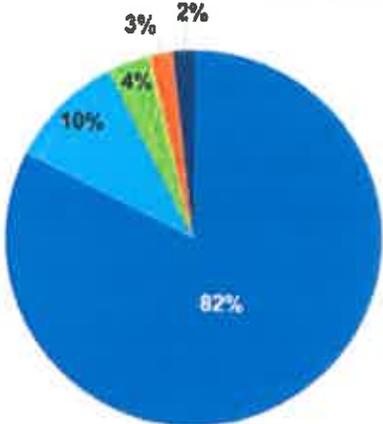


- **Time from first page to enroute:** 7 minutes (median)
- **Time from enroute to arrival on scene:** 3 minutes (median)
- **Time from first page to arrival at scene:** 10.80 minutes (median)

LMVAS Revenue: FY18 Budget



The majority of budgeted LMVAS FY18 revenue (82%) is derived from patient fees.



City funding is calculated on a per capita basis. FY18 city funding is 10% of total budgeted revenue.

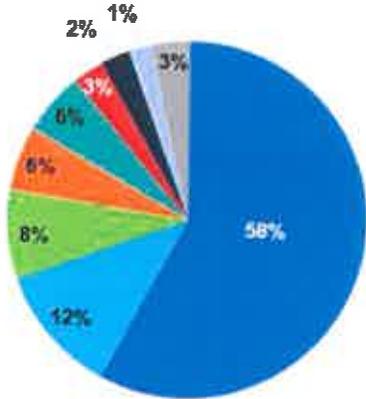
- Mount Vernon (4,507 residents)
\$13,500 = \$3.00 per capita
- Lisbon (2,152 residents)
\$6,500 = \$3.00 per capita



LMVAS Expenses: FY18 Budget



The largest budgeted LMVAS expense (58%) is staffing.



M. Reports Mayor/Council/Admin.

**CITY OF MT. VERNON
CITY ADMINISTRATOR
REPORT TO THE CITY COUNCIL
June 18, 2018**

- Staff will be interviewing associate planner candidates on Friday, June 22, 2018. Should a suitable candidate emerge, they could possibly join our staff by the middle of July.
- The City was able to realize small savings from ICAP (city insurance) and IMWCA (work comp) this year. At just under \$3,000, the amount is small but it is significantly better than an increase.
- The groundbreaking ceremony for the Lester Buresh Family Community Wellness Center will take place on July 14, 2018. I have attached the tentative agenda for the event.
- The Council received an email from Nick Nissen regarding a small increase in the sealcoat bid. Staff believes that the increased price for slag is well worth the investment.

Ground Breaking Ceremony

The Mount Vernon Community School District and the City of Mount Vernon are pleased to invite you to the joint groundbreaking ceremony.

Saturday, July 14, 2018

Mt. Vernon High School (open space adjacent to the circle drive)

731 Palisades Rd SW

Mt. Vernon, IA 52314

10:00 a.m.	Ceremony Begins
10:00 a.m. – 10:03 a.m.	Welcome Greeting from Greg Batenhorst, MVCSD Superintendent
10:03 a.m. – 10:06 a.m.	Kristin Anderson – MVCSD Fine Arts
10:06 a.m. – 10:09 a.m.	Introduction on behalf of City – Tom Wieseler
10:09 a.m. – 10:12 a.m.	Ernie and Joanne Buresh
10:12 a.m. – 10:15 a.m.	Mt. Vernon Band Performance (Can also play a closing song)
10:15 a.m. – 10:23 a.m.	Photo opportunity for school
10:23 a.m. - 10:30 a.m.	Photo opportunity for city