

*The City of Howard Lake strives to build upon its good neighbor traditions –
A welcoming community for all, supported by vibrant and engaged businesses and community organizations, involved
citizens, and diverse amenities that provide a well-rounded quality of life.*

TENTATIVE AGENDA
October 20, 2020 – 7:00 pm

- A. CALL TO ORDER
- B. PLEDGE OF ALLEGIANCE
- C. APPROVAL OF AGENDA
Any additions, deletions, modifications to the agenda will be done at this time.
- D. CONSIDER APPROVAL OF MINUTES
 - a. Regular Council Meeting on September 15, 2020.
 - b. Special Council Meeting on September 29, 2020.
- E. CITIZEN INPUT
- F. COUNCIL/COMMITTEE REPORT
 - a. Public Safety Committee – Councilors Kutz & Deiter
- G. DEPARTMENT REPORTS
 - a. Howard Lake Wine & Spirits Financials
- H. CONSENT AGENDA
 - a. Consider Accepting all Reports & Payment of Claims.
 - b. Consider Approving Various Personnel Appointments.
 - c. Consider Approving Use of City Property & Police for Halloween Events.
 - d. Consider Use of Public Streets & Police Assistance for 12th Annual Turkey Tag-Along 5K
 - e. Consider Approving Revitalization Grant to Pit Stop.
 - f. Consider Declaring Property Surplus and Authorizing the Sale of Generator.
- I. PRESENTATIONS, PUBLIC HEARINGS & RELATED APPROVALS
Consider Police Oath for Officer Josh Cassidy
- J. NEW BUSINESS
 - a. Consider Resolution 20- Site Plan, CUP and Variance for the Pit Stop at 620 Dutch Lake Drive.
 - b. Consider Approving CSAH 7 Feasibility Study.
 - c. Consider Authorizing Purchase of Pumper Truck for the Fire Department.
 - d. Consider Approving Purchase of Personal Lift.
 - e. Consider Approving Job Description and Direct Staff to Recruit for General Maintenance Worker.
 - f. Consider Approving ATV Purchase.
 - g. Consider 2021 Maintenance Agreement with Wright County.
- K. OLD BUSINESS
- L. ADMINISTRATOR'S REPORT
- M. ADJOURN



CITY OF HOWARD LAKE

625 8TH Avenue - PO Box 736 - Howard Lake, MN 55349
Phone: 320-543-3670 | cityadmin@howard-lake.mn.us | www.howard-lake.mn.us

HOWARD LAKE CITY COUNCIL
HOWARD LAKE CITY HALL- 625 8th AVENUE
September 15, 2020

MEETING MINUTES

COUNCIL PRESENT

Mayor Zimmerman
Tom Kutz
Allan Munson
Gene Gilbert

COUNCIL ABSENT

STAFF PRESENT

Nick Haggenmiller, City Administrator
Megan Theisen, Assistant City Administrator
Josh Halvorson, City Engineer/Bolton & Menk

ALSO PRESENT

Herald Journal

A. CALL TO ORDER

Mayor Zimmerman called the meeting to order at 7:00 p.m.

B. PLEDGE OF ALLEGIANCE

All present recited the Pledge of Allegiance.

C. APPROVAL OF AGENDA

Gilbert requested to move Consent Item B to New Business for Discussion
Kutz moved to move Consent Item B to New Business and approved the rest of the agenda. Munson seconded the motion and it passed unanimously.

D. APPROVAL OF MINUTES

Kutz moved to approve the minutes from the Auditors Report, Budget Work Session, Council Meeting and Regular Work Session on August 18, 2020. The motion was seconded by Deiter and passed unanimously.

E. CITIZEN INPUT

Paul Pearson – Mobile Home Park – Addressed the council about mosquito spraying. He would like the City to only spray once a week or avoid his area completely. He stated that he called 18 cities in Wright County and only 6 of those cities spray for mosquitos.

Haggenmiller stated that City staff is using the product as directed by the manufacturer. It is difficult to avoid certain properties due to the amount of time it takes to turn the machine on and off.

Mayor Zimmerman stated that there are a lot of public support for spraying and minimal push back. He would like staff to do some research over the next few months and we will revisit the discussion before spraying starts next spring.

F. COUNCIL/COMMITTEE REPORT

Deiter provided an overview of the public safety committee meeting on September 2nd, 2020 with the Fire Department.

G. DEPARTMENT REPORTS

Council acknowledge the receipt of the Howard Lake Wine & Spirits Financial Report.

H. CONSENT AGENDA

a. CONSIDER ACCEPTING ALL REPORTS AND PAYMENT OF CLAIMS

GENERAL FUND	56784-56901	\$388,711.29
PAYROLL	26664-26685, 500992 - 501041	\$51,265.33
ELECTRONIC	778-798	\$43,409.86
TOTAL		\$483,386.48
AMBULANCE CLAIMS	5676-5682	\$7,010.64
ELECTRONIC	----	\$0.00
TOTAL		\$7,010.64

**~~b. CONSIDER RESOLUTION SETTING ANNUAL SALARY FOR MAYOR & COUNCIL~~
– MOVED TO NEW BUSINESS.**

c. CONSIDER APPROVING RESOLUTION 20-12 FOR CJDN JOINT POWERS AGREEMENT

d. CONSIDER APPROVING 2020 ELECTION JUDGES

e. CONSIDER APPROVING RESOLUTION 20-13 2020 ABSENTEE BALLOT BOARD

Deiter motioned to approve the consent agenda. The motion was seconded by Gilbert and passed unanimously.

I. PRESENTATIONS

a. CONSIDER CONFIRMING PUBLIC HEARING FOR ISSUANCE OF SENIOR HOUSING REVENUE NOTES – SEPTEMBER 29, 2020 AT 6:00 PM AT HOWARD LAKE CITY HALL.

Kutz motioned to approve the Public Hearing for September 29. The motion was seconded by Gilbert and passed unanimously.

J. NEW BUSINESS

a. CONSIDER APPROVING SCOPE & TIMELINE FOR NUISANCE ABATEMENT AT 816 7TH AVENUE.

Theisen provided an update on the property at 816 7th Avenue. The home owner is currently working on the house, if work ceases Council will determine abatement timeline.

b. CONSIDER APPROVING PRELIMINARY TAX LEVY FOR 2021

c. CONSIDER APPROVING PRELIMINARY DEBT SERVICE LEVY FOR 2021 AND APPROVING RESOLUTION 20-14

d. CONSIDER APPROVING PRELIMINARY GENERAL FUND BUDGET FOR 2021

Haggenmiller presented a PowerPoint on the preliminary tax levy and budget for 2021.

Deiter requested to talk to Parks & Planning about what funds and projects they want to see done in 2021, potentially entertainment options for older kids.

Haggenmiller requested for Council to review between Option 1 and Option 2 that were presented.

Council agreed that makes the most sense to go with Option 1 and put \$70,000 into the City's "savings" account. Kutz added that with the pandemic, LGA funding could change.

Kutz motioned to approve Resolution 20-14 Adopting Proposed Property Tax Levy, Collectible in 2021. The motion was seconded by Munson and passed unanimously.

Deiter motioned to approve Resolution 20-15 Adopting Proposed debt service levy, collectible in 2021. The motion was seconded by Gilbert and passed unanimously.

Kutz motioned to approve Preliminary 2021 General Fund Budget. The motion was seconded by Munson and passed unanimously.

e. CONSENT ITEM B – CONSIDER CITY ORDINANCE 20-04 COUNCIL AND MYAOR SALARY INCREASE

Gilbert expressed she was concerned about the amount of the proposed increase for Mayor and Council salary. Council discussed and agreed to see an increase to \$5,000 for Council and \$7,000 for the Mayor.

Kutz motioned to approve Ordinance 20-04 An ordinance amending section 2.02 of the city code regarding compensation of mayor and city council members. The motion was seconded by Deiter and passed unanimously.

K. OLD BUSINESS

None.

L. ADMINISTRATORS REPORT

No Report.

Resident Jean Johnson addressed Council about putting up a privacy fence on her property to provide separation from the Fair Ground. She stated that the Fair Board has not been easy to work with on this project.

Council advised her to contact Wright County.

M. ADJOURN

Kutz motioned to adjourn the meeting at 8:20 pm. The motion was seconded by Munson and passed unanimously.

Attest – City Administrator/Clerk

Mayor

HOWARD LAKE CITY COUNCIL
Worksession
September 15, 2020

Start – 8:24 PM

CSAH 7 Feasibility Study

Halvorson provided background info on the CSAH 7 Feasibility Study. Stated if the County accepts our request, the project gets turned over to the City and the City will be reimbursed for the County's portion of the project.

Council would like to see the City move forward with the rest to the County about including a walking trail with the CSAH 7 project.

Imhoff Culvert

Council reviewed and discussed possible options to mitigate the water issues or to do nothing at this time.

Northwest Area Rail Quiet Zone

Council discussed requesting a quiet zone or installing Wayside Horns at each crossing to mitigate the noise levels and if this is a project that they would like to have this worked into the CIP.

Dutch Lake Water Woes

Halvorson presented information on the Dutch Lake Water issues. The Council would like the City to approach the DNR to see what can be done to fix the issues.

Adjourn at 9:15



CITY OF HOWARD LAKE

City Council Meeting

*The City of Howard Lake strives to build upon its good neighbor traditions –
A welcoming community for all, supported by vibrant and engaged businesses and community organizations, involved
citizens, and diverse amenities that provide a well-rounded quality of life.*

MEETING MINUTES SEPTEMBER 29, 2020 – 6:00 pm

PRESENT:

- Mayor Zimmerman
- Councilor Deiter
- Councilor Gilbert
- Councilor Kutz
- Administrator Haggenmiller
- Deb Reitmeier, Annandale Care Center

ABSENT:

- Councilor Munson

A. CALL TO ORDER

The meeting was called to order by Mayor Zimmerman at 6:00pm.

B. PLEDGE OF ALLEGIANCE

All present recited the pledge of allegiance.

C. APPROVAL OF AGENDA

The agenda was approved unanimously as published.

D. CITIZEN INPUT

There were no citizens present to address the council.

E. PRESENTATIONS, PUBLIC HEARINGS & RELATED APPROVALS

- a. Public Hearing for Issuance of Senior Housing Revenue Notes.

The regular meeting was closed at 6:03 and a public hearing was called. Representative Reitmeier of the Annandale Care Center provided the council with background on the project including services offered, number of anticipated units and total financing required. Haggenmiller provided the statutorily required information including the reference to \$8.5Million in Senior Housing Revenue Bonds to be issued through the City to the Annandale Care Center. Various legal documents and a JPA established between the City and the Care Center would remove repayment obligations of the City while ensuring tax exempt status of the issued notes.

The public hearing was closed at 6:10 and the regular meeting was reopened.

F. NEW BUSINESS

- a. Consider Resolution 20-16 Approving Housing Program & Approving the Issuance and Sale of a Senior Housing & Healthcare Revenue Note for the Annandale Care Center Project.

Resolution 20-16 was approved unanimously MSP Councilor Kutz/Deiter.

- b. Consider Resolution 20-17 Approving Special Assessments for Terning Trails Plat 4.

Haggenmiller noted the intention of the resolution was to assess the 12 parcels in Terning Trails Plat 4 (Villas of Howard Lake) \$39,000 each to cover the cost of street and utility construction. If parcels are sold or leased to income eligible individuals, the assessment is waived.

Resolution 20-17 was approved unanimously MSP Councilor Gilbert/Deiter.

G. ADJOURN

The meeting was adjourned at 6:14pm.

Howard Lake Wine & Spirits

Profit & Loss Statement

for the period 9/1/2020 to 9/30/2020

SALES	Mnthly Amnt	YTD Amount	Budget	% of Budget	2019 Mnthly Amt	2019 YTD Amt	+/- Pr Yr
Liquor	\$ 30,896	\$ 263,074	\$ 345,000	76%	\$ 22,335	\$ 132,454	\$ 130,620
Beer	\$ 52,408	\$ 469,676	\$ 645,000	73%	\$ 52,007	\$ 281,861	\$ 187,815
Wine	\$ 7,255	\$ 71,281	\$ 95,000	75%	\$ 6,032	\$ 33,133	\$ 38,148
Discounts	\$ (953)	\$ (12,074)			\$ (1,260)	\$ (10,755)	\$ (1,319)
Misc(Pop/Mixes/Tobaco)	\$ 1,881	\$ 20,661	\$ 50,000	41%	\$ 2,350	\$ 17,377	\$ 3,284
Non Tax	\$ 1,742	\$ 14,509			\$ 1,845	\$ 7,272	\$ 7,237
Loyalty Program	\$ (1,240)	\$ (10,220)	\$ (18,500)	55%	\$ (2,560)	\$ (7,590.00)	\$ (2,630)
On Sale Revenue - SSEC	\$ (17)	\$ 1,220					
Other Revenue	\$ 15	\$ 146					
TOTAL SALES	\$ 91,988	\$ 818,271	\$ 1,116,500	73%	\$ 80,749	\$ 453,751	\$ 363,154
COST OF SALES							
Liquor	\$ 21,693	\$ 182,372	\$ 226,548	81%	\$ 17,586	\$ 114,412	\$ 67,960
Beer	\$ 41,226	\$ 367,407	\$ 522,391	70%	\$ 38,257	\$ 212,077	\$ 155,330
Wine	\$ 4,690	\$ 48,574	\$ 58,694	83%	\$ 1,942	\$ 28,876	\$ 19,698
Pop/Mixes/Ice	\$ 863	\$ 12,458	\$ 22,400	56%	\$ 846	\$ 4,649	\$ 7,808
Tobacco	\$ 1,124	\$ 7,594	\$ 15,519	49%	\$ 1,110	\$ 11,479	\$ (3,885)
Freight	\$ 731	\$ 6,153	\$ 7,000	88%	\$ 361	\$ 2,979	\$ 3,174
TOTAL COST OF SALES	\$ 70,327	\$ 624,558	\$ 852,552		\$ 60,102	\$ 374,473	\$ 250,085
GROSS PROFIT	\$ 21,660	\$ 193,714					
EXPENSES							
Wages/Benefits	\$ 10,936	\$ 109,608	\$ 127,000	86%	\$ 11,667	\$ 78,513	\$ 31,094
Consulting	\$ 700	\$ 4,900	\$ 7,000	70%	\$ -	\$ 2,030	\$ 2,870
Training & Seminars	\$ -	\$ 240	\$ 1,000	24%	\$ -	\$ 785	\$ (545)
Travel	\$ (62)	\$ 682	\$ 1,710	40%	\$ 162	\$ 893	\$ (211)
Dues & Subscriptions	\$ -	\$ 800	\$ 1,000	80%	\$ -	\$ 130	\$ 670
Cash Short/Over	\$ (184)	\$ 50	\$ -		\$ (50)	\$ 207	\$ (157)
Credit Card Expense	\$ 1,583	\$ 12,930	\$ 14,400	90%	\$ 1,054	\$ 7,650	\$ 5,279
Insurance	\$ -	\$ 7,739	\$ 7,500	103%	\$ -	\$ 7,442	\$ 297
Repair & Maintenance	\$ -	\$ 1,251	\$ 5,000	25%	\$ -	\$ 1,949	\$ (698)
Computer Supplies/Technology	\$ 395	\$ 8,718	\$ 5,000	174%	\$ 270	\$ 8,734	\$ (17)
Utilities	\$ 706	\$ 6,371	\$ 10,000	64%	\$ 672	\$ 5,469	\$ 903
Advertising	\$ -	\$ 2,039	\$ 5,000	41%	\$ -	\$ 551	\$ 1,489
Misc	\$ 492	\$ 10,432	\$ 10,000	104%	\$ 761	\$ 7,269	\$ 3,163
Depreciation	\$ 625	\$ 5,625	\$ 7,500	75%	\$ 625	\$ 5,625	\$ -
TOTAL EXPENSES	\$ 15,191	\$ 171,385	\$ 202,110	85%	\$ 15,161	\$ 127,248	\$ 44,137
PROFIT/(LOSS)	\$ 6,469	\$ 22,329					

CITY OF HOWARD LAKE CLAIMS
& DONATIONS APPROVED DATE -
October 20, 2020

GENERAL FUND	CHECKS:	56902- 57049	\$1,038,18.05
PAYROLL		26686-26704, 50142 – 501089	46,403.70
ELECTRONIC		799-813	<u>41,406.76</u>
TOTAL			1,125,994.51
AMBULANCE CLMS	CHECKS:	5683-5689	\$5,955.55
ELECTRONIC			0.00
TOTAL			\$5,955.55

CITY OF HOWARD LAKE

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Cks 9/16/2020 - 10/20/2020

Name	Check Date	Check Amt	
1010 CITIZEN ALLIANCE			
Paid Chk# 000799E INTERNAL REVENUE SERVICE	9/23/2020	\$5,911.51	
Paid Chk# 000800E MN DEPT OF REVENUE	9/23/2020	\$1,170.09	
Paid Chk# 000801E PERA	9/23/2020	\$5,322.79	
Paid Chk# 000802E FURTHER	9/23/2020	\$665.04	
Paid Chk# 000803E INTERNAL REVENUE SERVICE	10/9/2020	\$6,919.10	
Paid Chk# 000804E MN DEPT OF REVENUE	10/9/2020	\$1,286.99	
Paid Chk# 000805E PERA	10/9/2020	\$5,426.88	
Paid Chk# 000806E FURTHER	10/9/2020	\$665.04	
Paid Chk# 000807E LS WEEKEND CASH	10/9/2020	\$2,000.00	
Paid Chk# 000808E EPS	10/9/2020	\$49.00	
Paid Chk# 000809E TRANSFIRST	10/9/2020	\$24.45	
Paid Chk# 000810E HEARTLAND PYMT SERVICES	10/9/2020	\$1,538.63	
Paid Chk# 000811E AUTHNET GATEWAY BILLING	10/9/2020	\$20.24	
Paid Chk# 000812E MN DEPT OF REVENUE	10/9/2020	\$1,541.00	UB SALES TAX SEPT 2020
Paid Chk# 000813E MN DEPT OF REVENUE	10/9/2020	\$8,866.00	HLWS SALES TAX SEPT 2020
Paid Chk# 026686 BONNICK, STEVEN	9/25/2020	\$179.70	
Paid Chk# 026687 GOEPFERT, THOMAS	9/25/2020	\$526.32	
Paid Chk# 026688 ALLERSON, NICHOLAS	9/25/2020	\$226.03	
Paid Chk# 026689 MILLER, EDWARD M	9/25/2020	\$143.36	
Paid Chk# 026690 ZEBRO, ALISON	9/25/2020	\$113.97	
Paid Chk# 026691 BOBROWSKE, KURT	10/9/2020	\$184.70	
Paid Chk# 026692 DIERS, CHRISTOPHER	10/9/2020	\$46.17	
Paid Chk# 026693 BONNICK, STEVEN	10/9/2020	\$375.54	
Paid Chk# 026694 GOEPFERT, THOMAS	10/9/2020	\$536.27	
Paid Chk# 026695 DRUSCH, JACOB D	10/9/2020	\$557.95	
Paid Chk# 026696 DRUSCH, JOEY	10/9/2020	\$23.09	
Paid Chk# 026697 MAGES, ALEX	10/9/2020	\$311.19	
Paid Chk# 026698 SHEROD, JOSEPH L.	10/9/2020	\$46.17	
Paid Chk# 026699 STOLL, ERIC	10/9/2020	\$115.44	
Paid Chk# 026700 STRUB, KURT	10/9/2020	\$46.17	
Paid Chk# 026701 WIECH, KYLE	10/9/2020	\$291.93	
Paid Chk# 026702 ALLERSON, NICHOLAS	10/9/2020	\$80.06	
Paid Chk# 026703 MILLER, EDWARD M	10/9/2020	\$225.72	
Paid Chk# 026704 ZEBRO, ALISON	10/9/2020	\$70.92	
Paid Chk# 056902 HAGGENMILLER, NICK	9/21/2020	\$877.34	Paint Supplies - City Hall
Paid Chk# 056903 HOWARD LAKE POSTMASTER	9/21/2020	\$276.50	September UB
Paid Chk# 056904 HOWARD LAKE POSTMASTER	9/21/2020	\$0.00	AB Mailing
Paid Chk# 056905 HOWARD LAKE POSTMASTER	9/21/2020	\$280.00	AB Mailing Postage
Paid Chk# 056906 WRIGHT COUNTY SURVEYOR	9/23/2020	\$0.00	Villas Project - Plat Recordin
Paid Chk# 056907 AVI SYSTEMS INC	9/24/2020	\$1,514.04	
Paid Chk# 056908 BOLTON & MENK, INC	9/24/2020	\$7,965.50	
Paid Chk# 056909 CENTERPOINT ENERGY	9/24/2020	\$243.94	
Paid Chk# 056910 CITIZENS ALLIANCE BANK	9/24/2020	\$0.00	Safe Deposit Box Rent
Paid Chk# 056911 CR ELECTRIC	9/24/2020	\$4,281.87	Howard Lake Foods Lighting Ret
Paid Chk# 056912 DRAIN PROS, INC	9/24/2020	\$150.00	
Paid Chk# 056913 DRUSCH, JACOB	9/24/2020	\$369.04	Sunglass - Reimbursement
Paid Chk# 056914 EARL F ANDERSON, INC	9/24/2020	\$220.98	
Paid Chk# 056915 EARTHLINK INC	9/24/2020	\$12.95	
Paid Chk# 056916 GREATER MN COMMUNICATION	9/24/2020	\$159.92	Envelopes
Paid Chk# 056917 HALVORSON, LANGEMO & PASC	9/24/2020	\$1,350.00	
Paid Chk# 056918 JOES SPORT SHOP	9/24/2020	\$571.48	
Paid Chk# 056919 M & T REPAIR LLC	9/24/2020	\$1,365.48	
Paid Chk# 056920 MARCO TECHNOLOGIES LLC-PR	9/24/2020	\$166.48	
Paid Chk# 056921 MEDIACOM LLC	9/24/2020	\$256.17	
Paid Chk# 056922 MENARDS-BUFFALO	9/24/2020	\$1,201.05	City Hall Paint project

CITY OF HOWARD LAKE

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Cks 9/16/2020 - 10/20/2020

Name		Check Date	Check Amt	
Paid Chk#	056923	MID-MINNESOTA HOT MIX, INC	9/24/2020	\$91.67
Paid Chk#	056924	MIDWEST MACHINERY CO	9/24/2020	\$388.32
Paid Chk#	056925	MN VALLEY TESTING LAB	9/24/2020	\$89.00
Paid Chk#	056926	MUMFORD SANITATION-MONTH	9/24/2020	\$10,580.80 COMPOST LEASE - September2020
Paid Chk#	056927	MUNSON LAKES NUTRITION	9/24/2020	\$139.95
Paid Chk#	056928	PAUMEN COMPUTER SERVICES	9/24/2020	\$850.00 Scheduled Maintenace - Ticket
Paid Chk#	056929	PLUNKETT S PEST CONTROL	9/24/2020	\$70.60
Paid Chk#	056930	SHAPE AND STYLE	9/24/2020	\$3,000.00 CARES Business Grant
Paid Chk#	056931	SPRINT - CELL	9/24/2020	\$310.67
Paid Chk#	056932	STREICHERS	9/24/2020	\$66.98
Paid Chk#	056933	TEAM LABORTATORY CHEMICA	9/24/2020	\$964.25
Paid Chk#	056934	THE BROKEN BOLT	9/24/2020	\$3,000.00 CARES Business Grant
Paid Chk#	056935	THOMPSON, DAVE	9/24/2020	\$65.99 Reimbursement
Paid Chk#	056936	TRI-COUNTY TREE SERVICE	9/24/2020	\$400.00 Municipal Park tree removal
Paid Chk#	056937	ULINE	9/24/2020	\$292.28
Paid Chk#	056938	VERIZON CONNECT, NWF INC	9/24/2020	\$29.76
Paid Chk#	056939	VISA	9/24/2020	\$4,869.49
Paid Chk#	056940	WASTEWATER COMMISSION	9/24/2020	\$37,171.11 Forsman Portion - July 2020
Paid Chk#	056941	WRIGHT HENNEPIN ELECTRIC	9/24/2020	\$758.00
Paid Chk#	056942	SYLVESTER CUSTOM GRINDING	9/25/2020	\$7,647.40
Paid Chk#	056943	ARCTIC GLACIER ICE, INC	10/1/2020	\$38.15
Paid Chk#	056944	BELLBOY CORPORATION	10/1/2020	\$8,118.99
Paid Chk#	056945	BENT BREWSTILLERY	10/1/2020	\$133.20
Paid Chk#	056946	BOOM ISLAND BREWING CO LL	10/1/2020	\$92.00
Paid Chk#	056947	BREAKTHRU BEVERAGE	10/1/2020	\$9,344.09
Paid Chk#	056948	C & C EMBROIDERY	10/1/2020	\$183.00
Paid Chk#	056949	CAPITOL BEVERAGE SALES	10/1/2020	\$10,784.26
Paid Chk#	056950	DAHLHEIMER BEVERAGE LLC	10/1/2020	\$13,492.55
Paid Chk#	056951	FERRELL, JUSTINA	10/1/2020	\$18.34 Reimbursement
Paid Chk#	056952	GRANITE CITY JOBBING CO	10/1/2020	\$1,134.38
Paid Chk#	056953	HOWARD LAKE FIRE DEPARTME	10/1/2020	\$78.60 Donations recd - HLWS
Paid Chk#	056954	JOHNSON BROTHERS LIQUOR C	10/1/2020	\$8,823.93
Paid Chk#	056955	LOCHER BROS, INC	10/1/2020	\$8,509.90
Paid Chk#	056956	PAUSTIS WINE COMPANY	10/1/2020	\$482.50
Paid Chk#	056957	PHILLIPS WINE & SPIRITS	10/1/2020	\$3,295.83
Paid Chk#	056958	SOUTHERN GLAZERS OF MN	10/1/2020	\$7,373.09
Paid Chk#	056959	VINOCOPIA, INC	10/1/2020	\$591.46
Paid Chk#	056960	WINE MERCHANTS	10/1/2020	\$547.95
Paid Chk#	056961	JK LANDSCAPE CONSTRUCTION	10/2/2020	\$55,570.00
Paid Chk#	056962	HOWARD LAKE POSTMASTER	10/5/2020	\$31.00 STAMPS - AB VOTING
Paid Chk#	056963	ALLERSON, NICK	10/12/2020	\$1.73 Reimbursement - Delivery
Paid Chk#	056964	AV DESIGN	10/12/2020	\$675.00
Paid Chk#	056965	BERITEC LTD	10/12/2020	\$1,425.77
Paid Chk#	056966	CENTURYLINK	10/12/2020	\$622.15
Paid Chk#	056967	CINTAS	10/12/2020	\$1,076.82
Paid Chk#	056968	CITY OF BUFFALO	10/12/2020	\$60.00 ACCT# 26-022950-00
Paid Chk#	056969	CORE & MAIN	10/12/2020	\$187.80
Paid Chk#	056970	CR ELECTRIC	10/12/2020	\$4,570.00 Lions Park - Hand Dryers
Paid Chk#	056971	DAVID DROWN ASSOCIATES	10/12/2020	\$2,750.00 2019 YE Full and Limited Conti
Paid Chk#	056972	DONAHUE, MEAGAN	10/12/2020	\$215.00 CELL ALLOWANCE - October
Paid Chk#	056973	FIE, KYLEE	10/12/2020	\$15.53 Reimbursement - Delivery
Paid Chk#	056974	FIERRO, CONNIE	10/12/2020	\$250.00 Damage Deposit - SSEC
Paid Chk#	056975	FROEHLE, DENNIS & LYNETTE	10/12/2020	\$3.27 Utility Billing Reimbursement
Paid Chk#	056976	FROOGLE, LLC	10/12/2020	\$50.00
Paid Chk#	056977	FURTHER	10/12/2020	\$4.75
Paid Chk#	056978	GOPHER STATE ONE-CALL, INC	10/12/2020	\$88.65

CITY OF HOWARD LAKE

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Cks 9/16/2020 - 10/20/2020

	Name	Check Date	Check Amt	
Paid Chk# 056979	GREATER MN COMMUNICATION	10/12/2020	\$200.00	
Paid Chk# 056980	HAFFTEN, DUSTIN	10/12/2020	\$117.72	Utility Bill Reimbursement
Paid Chk# 056981	HAGGENMILLER, NICK	10/12/2020	\$365.00	CELL PHONE - October
Paid Chk# 056982	HAWKINS, INC	10/12/2020	\$1,587.55	
Paid Chk# 056983	HERALD JOURNAL PUBLISHING	10/12/2020	\$195.60	
Paid Chk# 056984	HERC-U-LIFT	10/12/2020	\$716.02	
Paid Chk# 056985	HL PIT STOP	10/12/2020	\$490.54	
Paid Chk# 056986	HOWARD LAKE FIRE DEPARTME	10/12/2020	\$886.00	Donations
Paid Chk# 056987	HOWARD LAKE FOODS	10/12/2020	\$37.67	
Paid Chk# 056988	JOES SPORT SHOP	10/12/2020	\$1,060.44	
Paid Chk# 056989	LAWAY, MYRA	10/12/2020	\$65.00	CELL PHONE - October
Paid Chk# 056990	M & T REPAIR LLC	10/12/2020	\$635.03	
Paid Chk# 056991	MARCO TECHNOLOGIES LLC-PH	10/12/2020	\$39.50	
Paid Chk# 056992	MCALPINE, DEBRA	10/12/2020	\$14.38	Reimbursement - Delivery
Paid Chk# 056993	MEDIACOM LLC	10/12/2020	\$160.21	
Paid Chk# 056994	MENARDS-BUFFALO	10/12/2020	\$13.47	
Paid Chk# 056995	METRO WEST INSPECTION SER	10/12/2020	\$1,351.41	
Paid Chk# 056996	METRO WEST IRRIGATION	10/12/2020	\$150.00	
Paid Chk# 056997	MID-MINNESOTA HOT MIX, INC	10/12/2020	\$13,960.19	2020 Street Project
Paid Chk# 056998	MN DEPT OF LABOR & INDUSTR	10/12/2020	\$200.00	
Paid Chk# 056999	MN PEIP	10/12/2020	\$13,255.76	
Paid Chk# 057000	MN VALLEY TESTING LAB	10/12/2020	\$47.00	
Paid Chk# 057001	NAPA AUTO PARTS COKATO	10/12/2020	\$36.57	
Paid Chk# 057002	NCPERS GROUP LIFE INS	10/12/2020	\$48.00	
Paid Chk# 057003	NELSON ELECTRIC MOTOR REP	10/12/2020	\$270.00	
Paid Chk# 057004	ONCALL TECHNICAL SERVICES	10/12/2020	\$651.38	
Paid Chk# 057005	PRECISION UTILITIES	10/12/2020	\$2,972.08	
Paid Chk# 057006	PRESTIDGE, CLAYTON	10/12/2020	\$65.00	CELL PHONE - October
Paid Chk# 057007	RON SCHROEDER CONTRACTIN	10/12/2020	\$4,460.00	City Hall Paint Project
Paid Chk# 057008	STANLEY, BRIDGET	10/12/2020	\$65.00	CELL ALLOWANCE - October
Paid Chk# 057009	SWANSON, JASON	10/12/2020	\$739.10	
Paid Chk# 057010	T & T SERVICES	10/12/2020	\$581.50	
Paid Chk# 057011	TNT COMMUNICATIONS MN LLC	10/12/2020	\$522.00	
Paid Chk# 057012	WASTEWATER COMMISSION	10/12/2020	\$45,370.19	August - Less Forsmans Portion
Paid Chk# 057013	WRIGHT COUNTY RECORDER	10/12/2020	\$56.00	Termining Trails Plat 4
Paid Chk# 057014	XCEL ENERGY	10/12/2020	\$6,850.70	
Paid Chk# 057015	ZWILLING, TROY	10/12/2020	\$65.00	CELL PHONE - October
Paid Chk# 057016	HOWARD LAKE POSTMASTER	10/13/2020	\$42.00	STAMPS - AB VOTING
Paid Chk# 057017	ALL WAYS RENTAL, INC	10/15/2020	\$300.00	
Paid Chk# 057018	AMERICAN PRESSURE INC	10/15/2020	\$20.98	
Paid Chk# 057019	ARCTIC GLACIER ICE, INC	10/15/2020	\$194.52	
Paid Chk# 057020	BREAKTHRU BEVERAGE	10/15/2020	\$1,426.82	
Paid Chk# 057021	C & L DISTRIBUTING	10/15/2020	\$549.80	Beer
Paid Chk# 057022	CAPITOL BEVERAGE SALES	10/15/2020	\$6,941.95	
Paid Chk# 057023	COURI & RUPPE, P.L.L.P.	10/15/2020	\$1,935.00	
Paid Chk# 057024	CUB FOODS	10/15/2020	\$269.48	
Paid Chk# 057025	DAHLHEIMER BEVERAGE LLC	10/15/2020	\$4,231.03	
Paid Chk# 057026	ELECTRONIC & APPLIANCE REC	10/15/2020	\$1,076.80	Fall Clean up Day 2020
Paid Chk# 057027	EMERGENCY RESPONSE SOLU	10/15/2020	\$4,262.50	
Paid Chk# 057028	FINKEN WATER SOLUTIONS	10/15/2020	\$32.60	
Paid Chk# 057029	GERTKEN BROS., INC	10/15/2020	\$137,058.59	Central Park Phase I - Pay App
Paid Chk# 057030	HEIMAN FIRE EQUIPMENT, INC	10/15/2020	\$45.00	
Paid Chk# 057031	HOWARD LAKE FOODS	10/15/2020	\$4.47	
Paid Chk# 057032	JOHNSON BROTHERS LIQUOR C	10/15/2020	\$949.62	
Paid Chk# 057033	JONS LAWN CARE & SNOW REM	10/15/2020	\$579.83	
Paid Chk# 057034	LEAGUE OF MINN CITIES	10/15/2020	\$293.16	Adobe Licenses - City Hall (4)

CITY OF HOWARD LAKE

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Cks 9/16/2020 - 10/20/2020

	Name	Check Date	Check Amt	
Paid Chk# 057035	LOCHER BROS, INC	10/15/2020	\$3,756.90	
Paid Chk# 057036	MARCO TECHNOLOGIES LLC-PR	10/15/2020	\$530.05	
Paid Chk# 057037	MEDIACOM LLC	10/15/2020	\$244.90	
Paid Chk# 057038	MENARDS-BUFFALO	10/15/2020	\$44.88	
Paid Chk# 057039	MILLNER HERITAGE	10/15/2020	\$420.00	
Paid Chk# 057040	NORTHLAND TRUST SERVICES,	10/15/2020	\$521,942.50	Series 2012A
Paid Chk# 057041	NORTHWEST ASSOC CONSULT	10/15/2020	\$237.60	
Paid Chk# 057042	PAUSTIS WINE COMPANY	10/15/2020	\$539.13	
Paid Chk# 057043	PHILLIPS WINE & SPIRITS	10/15/2020	\$2,452.80	
Paid Chk# 057044	PLUNKETT S PEST CONTROL	10/15/2020	\$201.27	
Paid Chk# 057045	SOUTHERN GLAZERS OF MN	10/15/2020	\$1,165.45	
Paid Chk# 057046	VINOCOPIA, INC	10/15/2020	\$1,259.12	
Paid Chk# 057047	WASTEWATER COMMISSION	10/15/2020	\$14,000.00	1316 4th Ave
Paid Chk# 057048	WINE MERCHANTS	10/15/2020	\$129.59	
Paid Chk# 057049	HOWARD LAKE POSTMASTER	10/19/2020	\$56.00	POSTAGE - AB MAILINGS
Paid Chk# 501042E	BOVERHUIS, ANTHONY	9/25/2020	\$412.88	
Paid Chk# 501043E	HAGGENMILLER, NICHOLAS A	9/25/2020	\$2,923.21	
Paid Chk# 501044E	KUTZ, KENNETH	9/25/2020	\$183.09	
Paid Chk# 501045E	LAWAY, MYRA	9/25/2020	\$1,639.73	
Paid Chk# 501046E	SZCZEPANIK, DARIUSZ J	9/25/2020	\$1,666.12	
Paid Chk# 501047E	THOMPSON, DAVID G	9/25/2020	\$1,870.09	
Paid Chk# 501048E	THOMPSON, KYLE	9/25/2020	\$371.64	
Paid Chk# 501049E	ZANDER, SHARI	9/25/2020	\$1,287.71	
Paid Chk# 501050E	ANDERSON, ERIC J.	9/25/2020	\$1,897.79	
Paid Chk# 501051E	CASSIDY, JOSHUA J	9/25/2020	\$779.14	
Paid Chk# 501052E	THEISEN, MEAGAN	9/25/2020	\$1,631.72	
Paid Chk# 501053E	YUNKER, JEAN	9/25/2020	\$155.99	
Paid Chk# 501054E	PRESTIDGE, CLAYTON P	9/25/2020	\$1,382.69	
Paid Chk# 501055E	STANLEY, BRIDGET	9/25/2020	\$1,181.39	
Paid Chk# 501056E	ZWILLING, TROY	9/25/2020	\$1,749.63	
Paid Chk# 501057E	DOLL, SARAH	9/25/2020	\$107.03	
Paid Chk# 501058E	FERRELL, JUSTINA LYNN	9/25/2020	\$125.68	
Paid Chk# 501059E	FIE, KYLEE	9/25/2020	\$200.87	
Paid Chk# 501060E	LINDER, ELISE	9/25/2020	\$115.37	
Paid Chk# 501061E	MCALPINE, DEBRA-ANN	9/25/2020	\$343.75	
Paid Chk# 501062E	BOBROWSKE, KEITH	10/9/2020	\$46.17	
Paid Chk# 501063E	HAGGENMILLER, NICHOLAS A	10/9/2020	\$2,923.21	
Paid Chk# 501064E	LAWAY, MYRA	10/9/2020	\$1,662.98	
Paid Chk# 501065E	SZCZEPANIK, DARIUSZ J	10/9/2020	\$1,666.12	
Paid Chk# 501066E	THOMPSON, DAVID G	10/9/2020	\$1,870.09	
Paid Chk# 501067E	THOMPSON, KYLE	10/9/2020	\$371.64	
Paid Chk# 501068E	ZANDER, SHARI	10/9/2020	\$1,375.06	
Paid Chk# 501069E	ANDERSON, ERIC J.	10/9/2020	\$1,897.79	
Paid Chk# 501070E	CASSIDY, JOSHUA J	10/9/2020	\$491.51	
Paid Chk# 501071E	THEISEN, MEAGAN	10/9/2020	\$1,754.77	
Paid Chk# 501072E	YUNKER, JEAN	10/9/2020	\$417.54	
Paid Chk# 501073E	PRESTIDGE, CLAYTON P	10/9/2020	\$1,424.20	
Paid Chk# 501074E	STANLEY, BRIDGET	10/9/2020	\$1,083.91	
Paid Chk# 501075E	ZWILLING, TROY	10/9/2020	\$1,901.58	
Paid Chk# 501076E	BRAVINDER, SETH Z	10/9/2020	\$69.26	
Paid Chk# 501077E	KITTOCK, BRIAN	10/9/2020	\$176.44	
Paid Chk# 501078E	KITTOCK, NICOLE D	10/9/2020	\$290.14	
Paid Chk# 501079E	LOEBERTMANN, AMANDA G	10/9/2020	\$161.61	
Paid Chk# 501080E	LOEBERTMANN, CRAIG	10/9/2020	\$184.70	
Paid Chk# 501081E	PETERSON, DAVID T	10/9/2020	\$277.05	
Paid Chk# 501082E	SPYRA, MICHAL	10/9/2020	\$69.26	

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Cks 9/16/2020 - 10/20/2020

Name	Check Date	Check Amt
Paid Chk# 501083E STUEVEN, MARK J	10/9/2020	\$184.70
Paid Chk# 501084E YOKIEL, ANDREW J	10/9/2020	\$726.70
Paid Chk# 501085E DOLL, SARAH	10/9/2020	\$53.84
Paid Chk# 501086E FERRELL, JUSTINA LYNN	10/9/2020	\$450.09
Paid Chk# 501087E FIE, KYLEE	10/9/2020	\$189.11
Paid Chk# 501088E LINDER, ELISE	10/9/2020	\$98.89
Paid Chk# 501089E MCALPINE, DEBRA-ANN	10/9/2020	\$459.12
Total Checks		\$1,125,994.51

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Cks 9/16/2020 - 10/20/2020

Name		Check Date	Check Amt
1012 CAB - AMBULANCE			
Paid Chk# 005683	VISA	9/24/2020	\$174.65
Paid Chk# 005684	HOWARD LAKE POSTMASTER	10/2/2020	\$110.00 STAMPS
Paid Chk# 005685	CENTRAL MCGOWAN, INC	10/15/2020	\$25.77
Paid Chk# 005686	CITY OF HOWARD LAKE	10/15/2020	\$4,450.00
Paid Chk# 005687	JOES SPORT SHOP	10/15/2020	\$283.13
Paid Chk# 005688	MN EMERGENCY MEDICAL SVC	10/15/2020	\$112.00
Paid Chk# 005689	RIDGEVIEW MEDICAL CENTER	10/15/2020	\$800.00
Total Checks			\$5,955.55



HOWARD LAKE CITY COUNCIL MEETING

October 20, 2020

AGENDA ITEM: Consider Approving Various Personnel Appointments

SECTION: Consent Agenda

FROM: Meagan Theisen, Assistant City Administrator

BACKGROUND: Per statute, the City Administrator appoints and the City Council confirms employment classification as part of the official record. The following individuals have submitted their resignation:

Matt Simpson – Howard Lake Fire Department
Michael Hetrick – Howard Lake Fire Department
Krystal Fair – Howard Lake Police Department
Jean Yunker - Howard Lake Utility Clerk

The following individuals have submitted their retirement notice:

ALTERNATIVE OPTIONS: Council may approve, modify or reject the appointments.
Kurt Strub – Howard Lake Fire Department

STAFF RECOMMENDATION: Approve as Presented.

ATTACHMENTS: N/A



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Approving Use of City Property & Police for Halloween Events

SECTION: Consent

FROM: Meagan Theisen, Assistant City Administrator

BACKGROUND:

Business Trick or Treat

The Howard Lake Chamber of Commerce is putting on a community Halloween event on Friday, October 30 from 4-6 at businesses along Highway 12 and along 8th Ave. Howard Lake Police Department will be directing cross traffic at 8th and HWY 12.

Dutch Lake Halloween

The City has closed the Dutch Lake Trail Subdivision to vehicle traffic on Halloween the last several years. The last couple years, Dutch Lake Trail Subdivision had barricades placed at the entrance of the development with a sign requesting vehicles park to solely permit pedestrian activity to increase safety within the development during Halloween. Exceptions were allowed for visitors with limited mobility or special needs and emergency services. To continue promoting pedestrian safety on Halloween, staff recommend closing the subdivision again this year.

Covid19

With all Halloween events going on this year, we are encouraging people to mind social guidelines, to wear masks and if you have any COVID symptoms to not attend. Businesses will be outside of their building to distribute candy and the candy handed out will be individually packaged. The Chamber has also included a map for participants to follow to encourage one way traffic.

DECISION MAKING METRICS:

FINANCIAL: N/A

LEGAL: Council has the authority to dictate special use of public property. It's noted that the mayor and a council member reside in this neighborhood. This does NOT present a defined conflict of interest and the full council is able to act on the matter.

STRATEGIC PLAN: Sustain and Enhance Community Traditions

COUNCIL ACTION REQUESTED: Approve the Howard Lake Chamber of Commerce Trick or Treat Main Street Event including use of public property and police assistance. Further, approve closure of Dutch Lake Trail Subdivision on Halloween with use of police assistance.

ATTACHMENTS: Chamber Flyer for Halloween Event

HOWARD LAKE ★ BUSINESS

TRICK OR TREAT



FRIDAY, OCT. 30 ★ 4-6PM

This year the business treat or treat will be a sidewalk event. Due to CDC Guidelines related COVID-19, we are asking businesses to hand out treats to children outside their business to practice safe social distancing.

Participating Businesses:

Better Homes & Gardens Real Estate All Seasons
(Alicia Boltz & Robin Fiecke)

City of Howard Lake

Emmy's Salon

Good Samaritan Assisted Living and Care Center

Howard Lake Ambassadors

Howard Lake Auxiliary

Howard Lake Chamber

Howard Lake Fire Department

Howard Lake Foods

Howard Lake Library

Howard Lake Lions

Howard Lake Wine & Spirits

Joe's Sport Shop

Keller Williams Integrity NW (Kelli Burau)

MN Fitness247

Mumford Sanitation

Munson Lakes Nutrition Country Store

St. John's Lutheran Church - Howard Lake

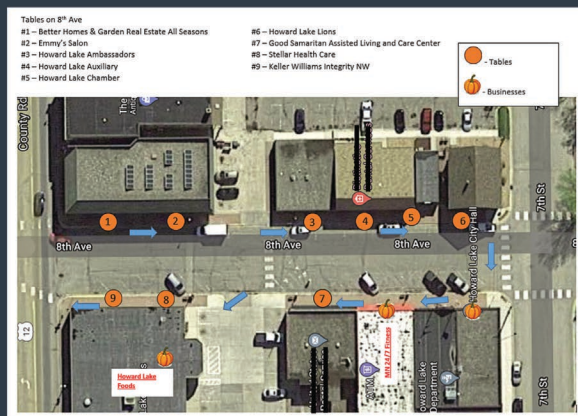
Stellar Health Care

That Chick with a Camera

The Vintage Exchange

Where to go?

Please, plan to start at the Howard Lake Library and follow the arrows around town to make all the stops.



This event is sponsored by the Howard Lake Area Chamber of Commerce





HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Use of Public Streets & Police Assistance for 12th Annual Turkey Tag-Along 5K

SECTION: Presentations, Public Hearings & Related Approvals

FROM: Kelli Bureau

Dave Thompson, Chief of Police

BACKGROUND: The 12th Annual Turkey Tag-Along is scheduled for November 26th, Thanksgiving Day around Howard Lake. Since the event requires use of city streets and assistance from the HLPD, council approval should be given for these actions. In the past, this event has been coordinated quite well and staff notes absolutely no concerns with this request.

DECISION MAKING METRICS:

FINANCIAL: N/A

LEGAL: Permitting use of city streets protects the city in terms of insurance/liability concerns that may arise.

STRATEGIC PLAN: Sustain and Enhance Community Traditions

COUNCIL ACTION REQUESTED: Approve use of city streets and assistance from HLPD for the Turkey Tag-Along 5K.

ATTACHMENTS: N/A



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Approving Revitalization Grant

SECTION: Consent Agenda

FROM: Nick Haggenmiller, City Administrator

BACKGROUND:

In 2016, the City of Howard Lake established a Downtown Revitalization Program. This program consisted of funds from a State of Minnesota program, Small Cities Development Program. This program funds improvements on a \$1 to \$1 match. The council recognized the bureaucratic process to the application as well as the financial hardship incurred by business/property owners providing the match. With that in mind, the Downtown Revitalization Grant Program was established. This would be a local grant program with intentionally obtainable standards to assist with providing match of funds to further the advancement of the Small Cities Development Program. Eligible property owners within the Downtown Revitalization District would be eligible for up to \$5,000 in funding under this program.

The Pit Stop – A&W Restaurant

The Pit Stop is applying for funding to offset anticipated costs with renovating their convenience store to accommodate a new fast food franchise. The owner is expensing a considerable amount of funds. This program is a small, but appreciated gesture towards the success of their business.



DECISION MAKING METRICS:

FINANCIAL: Each grant would be up to \$5,000 for a total of \$15,000. The City had originally dedicated \$30,000 for this program in 2016. If all three were funded in full this would satisfy the total city allocation to the program.

LEGAL: Providing funds in this manner is legally permitted provided the City has established rules, guidelines and procedures.

STRATEGIC PLAN:

Core Strategy: Foster a Robust Business Community and Vibrant Downtown.

- Specific Initiatives: Vibrant Storefronts.
 - Specific Initiatives: Downtown is walkable, clean and quaint.
-

COUNCIL ACTION REQUESTED: Approve the three grants of up to \$5,000 each as presented.



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Declaring Property Surplus and Authorizing the Sale of Generator

SECTION: Consent

FROM: Meagan Theisen, Assistant City Administrator

BACKGROUND: The City currently owns a Caterpillar portable generator with a trailer. This generator is not being used by the City at this time and we received an offer from the City of Le Sueur to purchase the generator and trailer for \$27,000.

Selling this unit will free up space in a very cramped public works garage as well as provide additional funds for our capital improvement program. Not immediately, but it is likely that future requests will be made for permanent generators to be placed at two critical lift stations.

Post sale, the city will still have one large generator and one small portable generator.

FINANCIAL: The City was approached by the City of Le Sueur to gauge interest in the sale. A secondary offer was made the company that services our generators for \$24,000. The proposed sale price here is \$27,000.

COUNCIL ACTION REQUESTED: Approve the sale of the portable Caterpillar Generator to the City of Le Sueur in the amount of \$27,000.

ATTACHMENTS: Purchase request letter from the City of Le Sueur



203 South Second Street
Le Sueur, MN 56058

September 23, 2020

Nick Haggenmiller
City Administrator
625 8th Avenue
Howard Lake MN 55349

RE: Caterpillar Generator

Mr. Nick Haggenmiller,

I am writing a formal request to purchase the large Caterpillar portable generator and trailer with 21.7 hours from the City of Howard Lake for the amount of \$27,000.00. If this is acceptable, the City of Le Sueur will purchase the equipment with a check made payable to the City of Howard Lake. I prefer to make this transaction by November 15, 2020.

I look forward to correspondence regarding this potential transaction.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Kucera".

Richard Kucera
203 South 2nd Street
Le Sueur, MN 56058
RKucera@cityoflesueur.com
507-593-8370



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Resolution 20-16 Site Plan, CUP and Variance for the Pit Stop at 620 Dutch Lake Drive.

Planning Commission: Public Hearing on Site Plan, CUP and Variance.

City Council: Consider Resolution Approving a Site Plan, Conditional Use Permit and Variance for the Pit Stop.

SECTION: New Business

FROM: Nick Haggemiller, City Administrator

BACKGROUND: The Pit Stop is seeking various approvals to accommodate the renovation of the convenience store. The proposed project includes relocating the current gas pumps to the west side of the building, converting the current car wash into an A&W Restaurant, and adding a coffee shop.

In order to facilitate the request the following approvals are needed:

Site Plan Approval – Standard review is needed on all commercial projects.

Conditional Use Permit – to allow the drive through, a condition within the particular business district.

Variance – To construct and operate gas pumps and related canopy within the side yard setbacks.

City Planner Sparks has drafted the included memo and resolution for consideration. The Parks and Planning Commission will hold a public hearing on October 20, 2020 and made a recommendation to the city council. Assuming the recommendation is to move forward with approval the City Council is asked to approve the attached resolution.

DECISION MAKING METRICS:

FINANCIAL: The City's established fees and charges schedule is used to calculate fees. The applicant has been invoiced.

LEGAL: The Planning Commission is required to hold a public hearing. Property owners have been notified.

STRATEGIC PLAN: Foster a Robust Business Community.

Planning Commission: Public Hearing on Site Plan, CUP and Variance.

City Council: Consider Resolution 20-16 Approving a Site Plan, Conditional Use Permit and Variance for the Pit Stop.

ATTACHMENTS:

1. Memo: City Planner Sparks
2. Resolution 20-16 Approving Site Plan, CUP and Variance.
3. Site Plan
4. Elevation Drawings
5. Public Hearing Notice

PLANNING MEMO

TO: Howard Lake Planning Commission
Nicholas Haggemiller, City Administrator

FROM: Nate Sparks

DATE: October 14, 2020

RE: Howard Lake – Pit Stop Expansion

Background

Dave Rollins has made an application for a site plan review, conditional use permit, and variance to allow for site modifications to the Pit Stop Convenience Store at 620 Dutch Lake Drive.

Applicant's Proposal

The applicant is proposing to remove a small portion of the western side of the building, relocate the gas pumps to the same side, and then add a restaurant with drive through lane to the east side of the building.

The location of the pumps and the canopy requires a variance. The restaurant with drive through lane requires a conditional use permit.

Zoning / Comprehensive Plan

The property is zoned B-1, General Business.

Motor vehicle fuel sales are permitted as a conditional use within the B-1 District. The proposal technically requires an amendment to this CUP, as the approved site plan is being amended.

The addition of the restaurant with drive-through lane requires a conditional use permit.

Development Proposal

The proposal is to remove between 18-23 feet of the western side of the building. Then the pumps would be moved from the front to this side.

The eastern portion of the building is to be converted to a restaurant with a drive-through lane.

Zoning Standards

Section 17-01.30 of the Zoning Ordinance has standards related to gas stations. The standards state that the canopy has to be 20 feet from the right-of-way and the pumps have to be 30 feet from the property line.

The proposed changes to the plan include moving the canopy to be about 8 feet from the side lot line. The gas pumps are about 11 feet from the side lot line. This requires a variance.

The drive-through lane requires stacking of 180 feet. The lane is on the opposite side of the building where there is adequate space.

Variance Review

In Minnesota State Statutes 462.357 Subd. 6 (2) states that variances from the requirements of the Zoning Ordinance shall only be permitted in the following instances:

1. The proposed variance is consistent with the Comprehensive Plan.
2. The proposed variance is in harmony with the general purpose and intent of this Ordinance.
3. The applicant for the variance established that there are practical difficulties in complying with the zoning ordinance. "Practical difficulties," as used in connection with the granting of a variance, means:
 - a. The property owner proposes to use the property in a reasonable manner not permitted by the zoning ordinance;
 - b. The plight of the landowner is due to circumstances unique to the property not created by the landowner; and
 - c. The variance, if granted, will not alter the essential character of the locality.
 - d. Economic considerations alone do not constitute practical difficulties.
4. A variance shall not be granted for a use not allowed under the zoning ordinance for property in the zone where the affected person's land is located.

Conditional Use Permit Review

The Planning Commission shall consider possible effects of the proposed conditional use. Its judgment shall be based upon, but not limited to, the following factors:

- A. The proposed action has been considered in relation to the specific policies and provisions of and has been found to be consistent with the Official City Comprehensive Plan.
- B. The proposed use is or will be compatible with present and future land uses of the area.
- C. The proposed use conforms with all performance standards contained in this Code.
- D. The proposed use can be accommodated with existing public services and will not overburden the City's service capacity.
- E. Traffic generation by the proposed use is within capabilities of streets serving the property.

Right-of-way Use License

A portion of the drive entering the gas pump area utilizes the City's right-of-way. This would require a right-of-way use license to be approved by the City Council.

Application Review

The proposed site amendments require consideration against the variance and CUP review criteria. If the Planning Commission finds that the amendments are consistent with these criteria, it would be recommended to approve the application.

The applicant could improve the site plan by installing curb to control access into the site to limit this to the two main entrances.

**CITY OF HOWARD LAKE
RESOLUTION 20-16**

**RESOLUTION APPROVING A SITE PLAN, CONDITIONAL USE PERMIT, AND
VARIANCE FOR SITE AMENDMENTS AT 620 DUTCH LAKE DRIVE**

WHEREAS, there has been submitted to the City Council of the City of Howard Lake (the "City") an application for a Site Plan Review, Conditional Use Permit, and Variance to allow for site modifications for a gas station at 620 Dutch Lake Drive from Dave Rollins (the "Applicant"); and

WHEREAS, the subject property (the "Property") is legally described as:

That part of Government Lots 3 and 4, Section 3, Township 118, Range 27, described as follows: Beginning at a point on the east line of said Section 3, distant 1368.47 feet south from the northeast corner of said Section 3, thence South 82°56'15" West, assuming the east line of said Section 3 bears South, a distance of 299.69 feet, thence North, parallel with said east line, to the southerly right of way of U.S. Highway No. 12, thence easterly, along said right of way, a distance of 299.69 feet to the east line of said Section 3, thence southerly, along said east line to the point of beginning.

Excluding Therefrom: Parcel 61A being that part of Government Lot 4, Section 3, Township 118 North, Range 27 West, shown as a portion of Parcel 61 on Minnesota Department of Transportation Right of Way Plat Numbered 86-42 as the same is on file and of record in the office of the County recorder in and for Wright County, Minnesota, lying within the following described tract: That part of Government Lots 3 and 4 of Section 3, Township 118 North, Range 27 West, described as follows; Beginning at a point in the east line of said Section 3, distant 1368.47 feet southerly of the northeast corner of said Section 3, thence South 82°56'15" West (assumed bearing) for 299.69 feet, thence northerly, parallel with said east section line to the southerly right of way of Trunk Highway No. 12, thence easterly along said right of way line for 299.69 feet to the east line of said Section 3, thence southerly along said east section line to the point of beginning, Wright County, Minnesota.

WHEREAS, the Applicant is proposing to move the gas pumps to the western portion of the site where the gas canopy will be 8 feet from the side lot line and the gas pumps will be 11 feet; and

WHEREAS, the City's Zoning Ordinance requires a setback of 20 feet for the canopy and 30 feet for the gas pumps necessitating a variance; and

WHEREAS, the applicant is seeking to add a restaurant with a drive-through to the site which requires a conditional use permit in the B-1 District; and

WHEREAS, the Planning Commission held a duly-noticed public hearing on the application on October 20, 2020; and

WHEREAS, the City Council reviewed the application on October 20, 2020; and

WHEREAS, the City Council by this Resolution desires to set forth its findings and ruling with respect to the application; and

WHEREAS, finds that the Conditional Use Permit and Variance request generally meet the requirements of the Howard Lake City Code; and

NOW THEREFORE, BE IT RESOLVED by the City of Howard Lake that it hereby makes the following findings of fact on the conditional use permit to allow for the site amendments for the gas station and to include the restaurant with drive-through in the B-1, General Business District:

1. The proposed action has been considered in relation to the specific policies and provisions of and has been found to be consistent with the Official City Comprehensive Plan.
2. The proposed use is or will be compatible with present and future land uses of the area.
3. The proposed use conforms with all performance standards contained in this Code.
4. The proposed use can be accommodated with existing public services and will not overburden the City's service capacity.
5. Traffic generation by the proposed use is within capabilities of streets serving the property.

NOW THEREFORE, BE IT ALSO RESOLVED by the City of Howard Lake that it hereby makes the following findings of fact on the variances for the location of the canopy and gas pumps:

1. The proposed variance is consistent with the Comprehensive Plan.
2. The proposed variance is in harmony with the general purpose and intent of the City's Zoning Ordinance.
3. The applicant for the variance established that there are practical difficulties in complying with the zoning ordinance.
4. The Applicant proposes to use the property in a reasonable manner not permitted by the zoning ordinance.
5. The plight of the landowner is due to circumstances unique to the property not created by the landowner
6. The variance will not alter the essential character of the locality.
7. Economic considerations alone do not constitute practical difficulties.
8. The variance is not being granted for a use not allowed under the zoning ordinance for property in the zone where the Applicant's land is located.

BE IT FURTHER RESOLVED that the City Council approves the site plan, variance, and conditional use permit CUP with the following conditions:

1. Lightnng and signange shall conform to all City requirements.
2. All comments from other relevant agencies shall be addressed.

PASSED AND ADOPTED this 20th day of October, 2020.

Peter Zimmerman, Mayor

ATTEST:

Nicholas Haggenmiller, City Administrator-Clerk

Exhibit A: Building Elevations

TOPOGRAPHIC SURVEY

~for~ **RAM GENERAL CONTRACTING**
~of~ **THE PIT STOP**
620 Dutch Lake Drive,
Howard Lake, MN

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
 - DENOTES IRON MONUMENT SET, MARKED RLS# 45356/52705
 - DENOTES WRIGHT COUNTY CAST IRON MONUMENT
 - DENOTES AIR CONDITIONING UNIT
 - DENOTES BOLLARD
 - DENOTES CATCH BASIN
 - ⊙ DENOTES CATCH BASIN MANHOLE
 - DENOTES CABLE PEDESTAL
 - CS DENOTES CURB STOP
 - DENOTES ELECTRICAL BOX
 - X 952.36 DENOTES EXISTING SPOT ELEVATION
 - DENOTES GAS METER
 - DENOTES GAS VALVE
 - DENOTES GUY WIRE
 - DENOTES HYDRANT
 - DENOTES LIGHT POLE
 - DENOTES MAILBOX
 - DENOTES MISCELLANEOUS MANHOLE
 - DENOTES MONITORING WELL
 - PZ DENOTES PIEZOMETER
 - PIV DENOTES POST INDICATOR VAVLE
 - DENOTES POWER POLE
 - DENOTES SANITARY SEWER MANHOLE
 - DENOTES SIGN
 - DENOTES SOIL BORING. (BY OTHERS)
 - DENOTES STORM SEWER APRON
 - DENOTES STORM SEWER MANHOLE
 - DENOTES TELEPHONE PEDESTAL
 - DENOTES TELEPHONE MANHOLE
 - DENOTES UTILITY BOX
 - DENOTES WATER SHUT OFF
 - DENOTES WATER VALVE
 - DENOTES WELL
 - DENOTES WET LAND
 - DENOTES STEEL RAILING
 - DENOTES CHAINLINK FENCE
 - DENOTES RETAINING WALL
 - DENOTES EXISTING CONTOURS
 - DENOTES TREE LINE
 - DENOTES EXISTING STORM SEWER
 - OHW — DENOTES OVERHEAD WIRE
 - E — DENOTES UNDERGROUND ELECTRIC LINE
 - DENOTES BITUMINOUS SURFACE
 - DENOTES CONCRETE SURFACE
 - DENOTES GRAVEL SURFACE
 - DENOTES PAVER SURFACE
 - DENOTES ADJACENT PARCEL OWNER INFORMATION (PER WRIGHT COUNTY TAX INFORMATION)
- PIN No. 17-119-22-14-0008
Owner: City of X
Address: Unassigned

DESCRIPTION PER DOC. NO. A1348619

That part of Government Lots 3 and 4, Section 3, Township 118, Range 27, described as follows;
Beginning at a point on the east line of said Section 3, distant 1368.47 feet south from the northeast corner of said Section 3, thence South 82°56'15" West, assuming the east line of said Section 3 bears South, a distance of 299.69 feet, thence North, parallel with said east line, to the southerly right of way of U.S. Highway No. 12, thence easterly, along said right of way, a distance of 299.69 feet to the east line of said Section 3, thence southerly, along said east line to the point of beginning.

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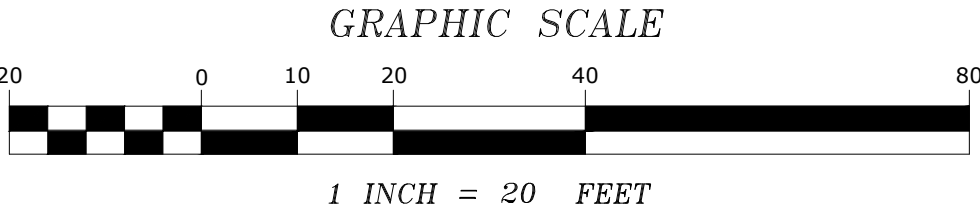
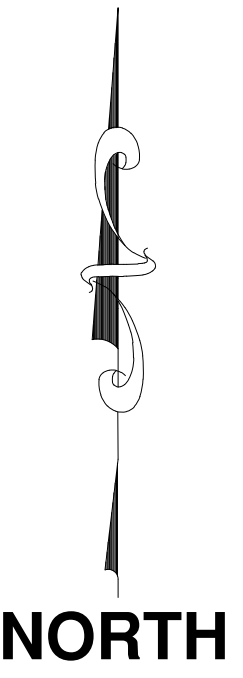
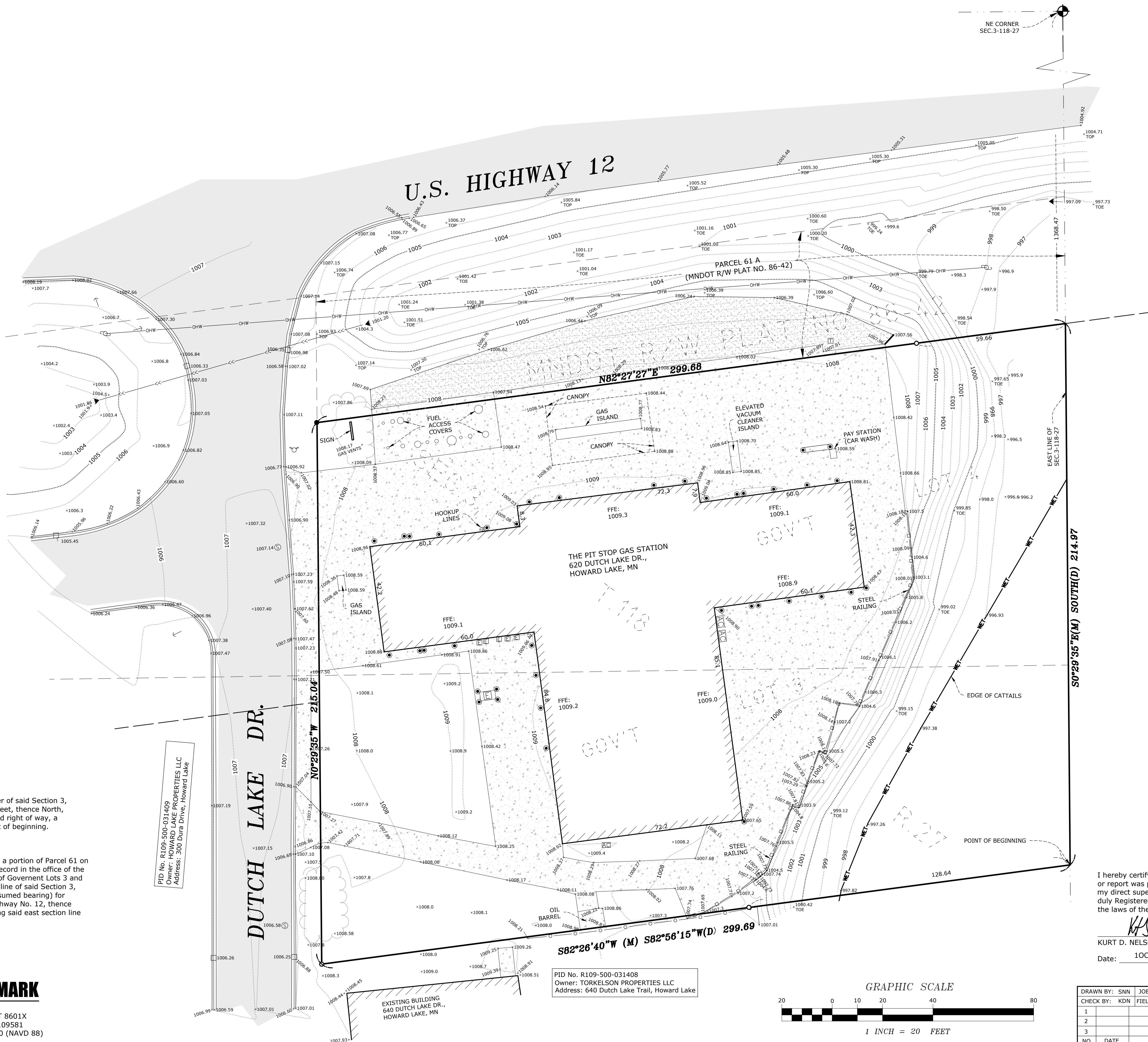
BENCHMARK

BENCHMARK:
MNDOT POINT 8601X
GSID STA. #109581
ELEV: 1008.20 (NAVD 88)



E. G. RUD & SONS, INC.
Professional Land Surveyors
990 - 5th Avenue SE, Suite 2
HUTCHINSON, MN 55350
TEL. HUTCHINSON: (320) 587-2025

www.egrud.com



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

KDN
KURT D. NELSON
Date: 10CT20 License No. 45356

DRAWN BY:	SNN	JOB NO:	201089	DATE:	10/1/20
CHECK BY:	KDN	FIELD CREW:			
1					
2					
3					
NO.	DATE	DESCRIPTION	BY		

SITE PLAN

~for~ **RAM GENERAL CONTRACTING**
~of~ **THE PIT STOP**
620 Dutch Lake Drive,
Howard Lake, MN

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
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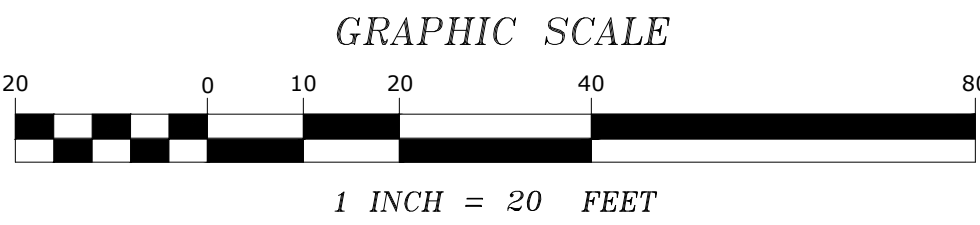


NORTH

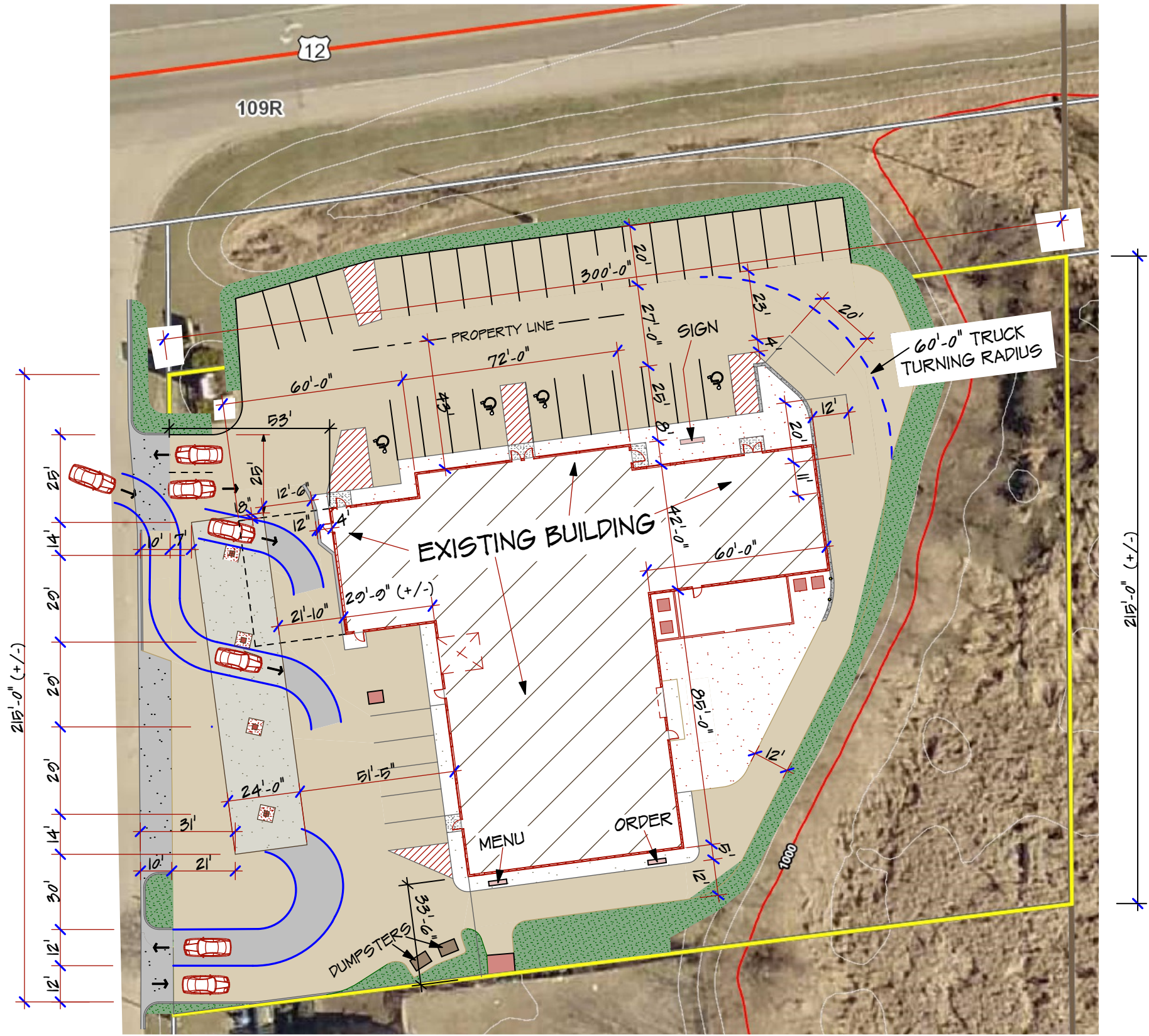
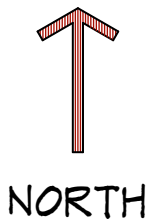
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

KDN
KURT D. NELSON

Date: 20CT20 License No. 45356



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2					
3					
NO.	DATE	DESCRIPTION		BY	



PRELIMINARY SITE PLAN

0 20' 40' 80'



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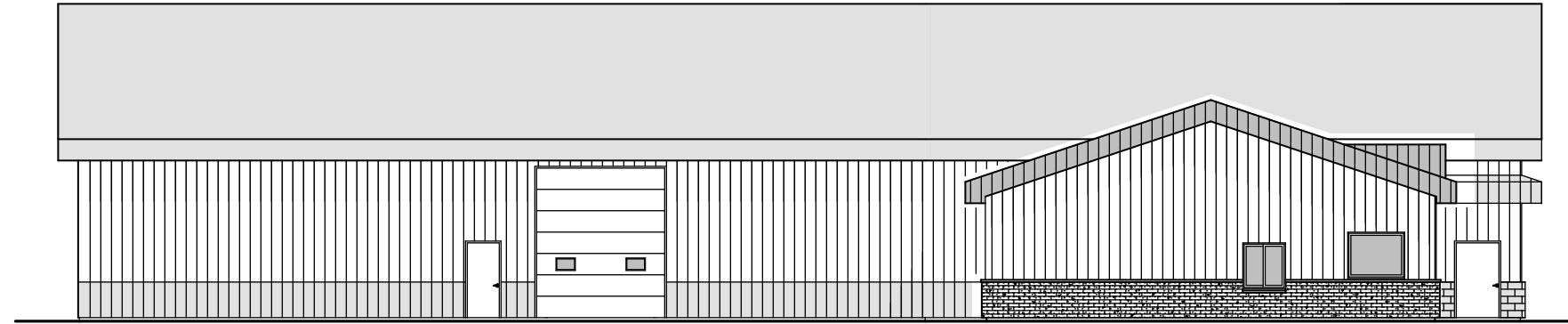
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DRAWN BY: R.S.
DATE: 10/16/2020
SHEET 1 OF 1

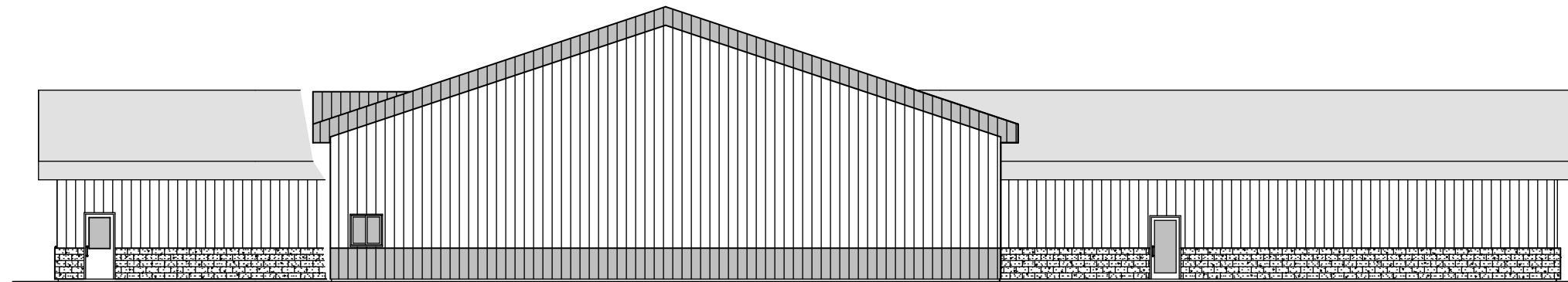
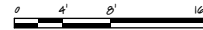
PROJECT NAME: **THE FIT STOP**
PROJECT NUMBER: **HOWARD LAKE, MINNESOTA**
BUILDING DESCRIPTION: **PRELIMINARY SITE PLAN**
DESIGN NUMBER:

592 Industrial Drive
P.O. Box 660
Winnet, Minnesota 55395
320-485-2844 800-710-4726
Fax 320-485-3625
www.rambuildings.com
Contractor License Number 20171976

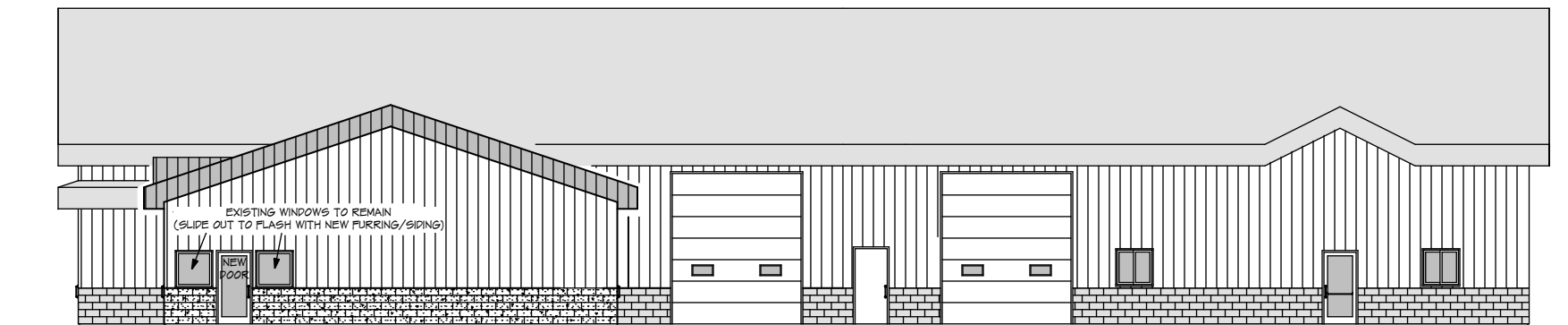
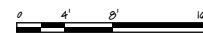




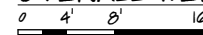
OVERALL EAST ELEVATION



OVERALL SOUTH ELEVATION



OVERALL WEST ELEVATION



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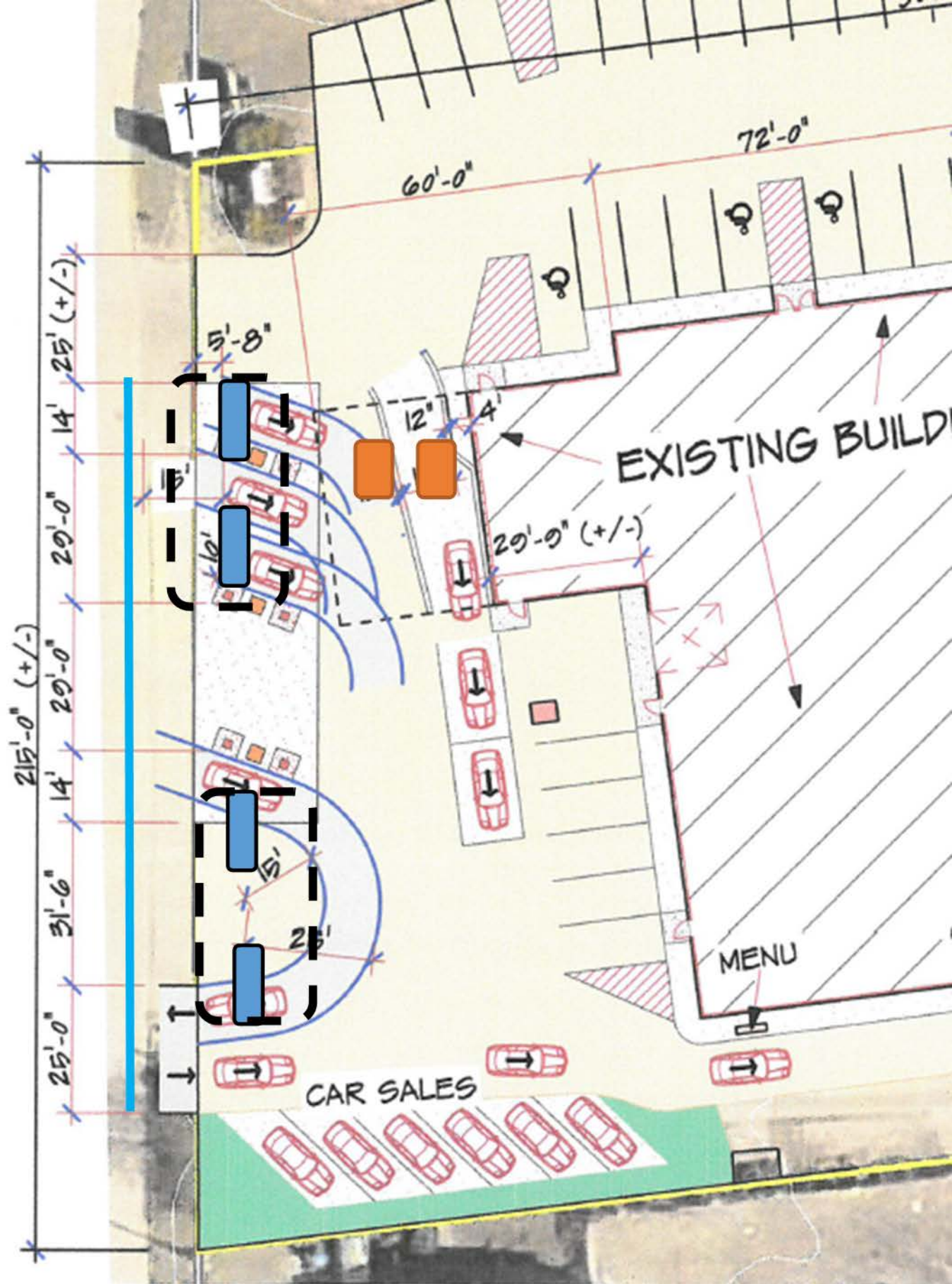
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Contractor License Number 20171976

PROJECT NAME: THE PIT STOP
PROJECT NUMBER: HOWARD LAKE, MN
BUILDING DESCRIPTION: PRELIMINARY PLAN
DESIGN NUMBER: P2010

DRAWN BY: R.S.
DATE: 10/7/2020
SHEET 2 OF 2







PUBLIC HEARING NOTICE

NOTICE IS HEREBY GIVEN that the City of Howard Lake Planning Commission will be holding a public hearing on October 20, 2020 at 5:00 pm. The public hearing will be conducted at City Hall located at 625 8th Ave. in Howard Lake.

The purpose of the public hearing is to consider a variance and conditional use permit for an expansion of the Pit Stop Convenience Store at 620 Dutch Lake Drive. The purpose of the applications is to allow for a variance for the canopy structure and gas pumps to be located within the front yard setback and a conditional use permit to allow for a restaurant with a drive through.

All interested parties are encouraged to attend the public hearing. Additional information regarding the hearing may be obtained by contacting the City of Howard Lake at 625 8th Ave., PO Box 736, Howard Lake, MN 55349 or (320) 543-3670. Full plans for review are available upon request.



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Request to Wright County to Expand Scope of CSAH 7 Road Project.

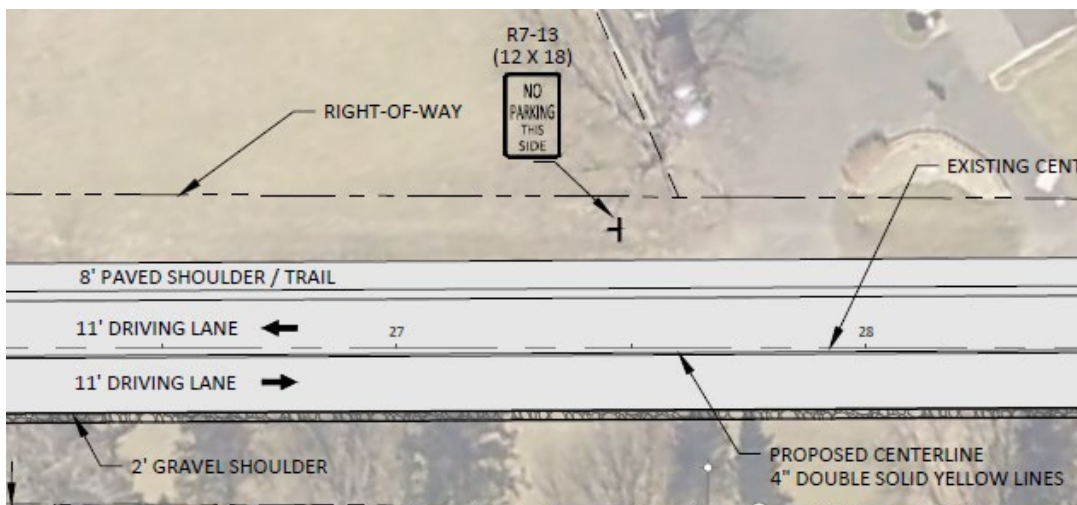
SECTION: New Business

FROM: Nick Haggenmiller, City Administrator

BACKGROUND: In July, the city council commissioned an engineering study to examine the feasibility of expanding the scope of a planned pavement preservation project on CSAH 7 scheduled for 2022. The feasibility study would consider preliminary design and preliminary cost & cost share of the project.

If the City and County agree to the general findings and recommendations within the feasibility study, Wright County would amend their 5 Year CIP to include the project. Wright County and the City of Howard Lake would enter into a cost share participation agreement. Ultimately, Wright County would expense their portion of the project to the City. The City would lead the full design and construction of the project.

The City Engineer has completed the Feasibility Study and recommends 11' drive lanes (1' less than current), 2' stripped buffer, 8' paved shoulder/trail. Shown below:



The feasibility study includes cost estimates and a proposed cost share agreement between Wright County and the City of Howard Lake. These are subject to final approval between the county and city as well as actual bids received for the project.

TABLE 2: COST SUMMARY			
ITEM	WRIGHT COUNTY	CITY	TOTAL
Construction Cost	\$238,774.00	\$275,576.00	\$514,350.00
Contingency (10%)	\$23,877.40	\$27,557.60	\$51,435.00
Legal, Engineering, Administration Fees (20%)	\$53,183.79	\$59,973.21	\$113,157.00
Total Project Cost	\$315,835.19	\$363,106.81	\$678,942.00

Quick Overview of Possible Steps Forward

- ✓ City of Howard Lake authorizes Preliminary Engineering Report to be completed by city engineer.
- ✓ City of Howard Lake accepts Feasibility Study [10.20.20]
- ✓ City of Howard Lake formally requests Wright County expand scope of CSAH 7 project.
- ✓ Wright County votes to modify 5-year CIP to include expanded scope for project.
- ✓ City & County enter into cost share agreement consistent with Wright County Cost Participation Policy
- ✓ City of Howard Lake designs, bids and is responsible for project administration at own schedule.

Assuming the City's intention is to move forward, we should be deliberate about neighborhood and overall community engagement on this project. Previous attempts at constructing a full grade separated trail was met with equal resistance and support. That said, there are key differences in this proposal. Specifically, NOT constructing a grade separated trail and not constructing on the east side of the road – which impacts fewer property owners.

Finally, while not immediately related to this request, it is noted that a reoccurring comment from the MNDOT Open House indicated lack of safe pedestrian crossing on US12/CSAH 7. Traffic engineers with MNDOT are currently considering options for crossing at this intersection as well.

DECISION MAKING METRICS:

FINANCIAL: There is an estimated \$360,000 cost to complete this project. Staff will review outside funding opportunities, consider bonding and use of capital reserve to complete this project. This will depend on bids received as well as the timing of Wright County's portion of the project. A recommendation will be brought back to the council at a future date.

LEGAL: This project will require sealed bids.

STRATEGIC PLAN:

- Delivery Highway Quality Services & Reliable Infrastructure
- Provide Diverse Amenities that Enhance Quality of Life
- Ensure a Safe & Healthy Community
- Develop a Livable Community for All

COUNCIL ACTION REQUESTED: Council is recommended to approve the Feasibility Study and direct staff to begin negotiating a cost share agreement. Staff is further directed to begin a public engagement effort for the project.

ALTERNATIVES:

1. Council could wait to formally commit until after a public notification process is complete. This is not advised as it may jeopardize approval within the county's CIP this fall.

ATTACHMENTS:

1. BMI Feasibility Study



Real People. Real Solutions.

City of Howard Lake

CSAH 7 Trail Project Feasibility Report

BMI Project No. W14.122467

Submitted by:

Bolton & Menk, Inc.
2040 Highway 12 East
Willmar, MN 56201
P: 320-231-3956
F: 320-231-9710



Certification

Feasibility Report

For

CSAH 7 Trail Project

City of Howard Lake, Minnesota

W14.122467

9-11-2020

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By:



Joshua J. Halvorson, P.E.
License No. 46291

Date: 10-02-2020

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Appendix

Appendix A: Preliminary Cost Estimate

Appendix B: Typical Sections & Preliminary Design

Figure A1: CSAH 7 Typical Sections

Figure A2: CSAH 7 Construction Typical Sections

Figure A3: Proposed CSAH 7 Layout

Appendix C: Wright County Crosswalk Forms

Appendix D: Pavement Design

Appendix E: State Aid Requirements

I. PROJECT INTRODUCTION

A. PURPOSE

The purpose of this Feasibility Report is to evaluate the addition of a trail along CSAH 7 to connect the existing trail segments of the Lions Park, Terning Trails, and Imhoff Avenue that are currently not continuous. This is for bicycle and pedestrian safety along the County Highway 7 roadway that has seen an increase in such recreational use.

The City would intend to complete this project in coordination with Wright County's 2022 Pavement Preservation project along CSAH 7 from US 12 to Maple Lake. This Feasibility Report includes the existing conditions evaluation, preliminary design review, and anticipated total project costs to construct a trail along CSAH 7 in 2022.

B. SCOPE

The proposed trail will be located adjacent to CSAH 7 on the east side of Howard Lake and extends from BNSF Railroad's north Right-Of-Way line near Lions Park to Imhoff Ave SW. The construction in conjunction with Wright County's 2022 Pavement Preservation project along CSAH 7 would isolate the trail along the Lake's shoreline with widening of the road. A map of the proposed project location is shown in **Figure 1**.



Figure 1: CSAH 7 Trail Project Location Map

II. EXISTING CONDITIONS

A. TRAIL

There is currently no trail that exists along CSAH 7 from US 12 to Imhoff Ave SW. However, there are existing trails located at the limits of the proposed project near Lions Park, 1st St E (Terning Trails), and Imhoff Ave SW (Lake Ridge). There is an 8-foot wide paved trail along the west side of CSAH 7 that crosses the BNSF Railroad tracks and connects to the parking lot at Lions Park as shown in **Figure 2** below. This existing trail segment runs from Lions Park and along the north side of US 12 and connects to downtown Howard Lake.



Figure 2: Lions Park Trail

There is a 10-foot wide paved shoulder trail along the south side of 1st St E that ends at the intersection of CSAH 7 and 1st St. E and is shown in **Figure 3**. This trail extends to the Terning Trail Development trail system. This trail transitions from a paved shoulder trail to a separated shared-use bituminous trail approximately 1000 feet east of CSAH 7.



Figure 3: 1st St. E Trail

There is an existing 6-foot wide separated shared-use bituminous trail along the north side Imhoff Ave SW and is shown in **Figure 4**. This trail extends north to the intersection of Ash Ave.



Figure 4: Imhoff Ave SW Trail

B. STREETS

The bituminous pavement on CSAH 7 was reconditioned and repaved by Wright County in 2006. The existing typical section is shown in *Appendix B* on *Figure A1*. The pavement section is 3.5-inches of bituminous pavement, 10-inches reclaimed bituminous aggregate base, and 3-inches of aggregate base. The existing width of CSAH 7 is approximately 24 feet wide of bituminous pavement for two 12-foot driving lanes. The shoulders along CSAH 7 between US 12 and 1st St E are 2-foot wide gravel shoulders on both sides, and from 1st St E to Imhoff Ave there are gravel shoulders that vary in width from 0 feet to 2 feet wide. On both sides of the road, the slopes are steep and are between a 1:4 to 1:2 slope. The existing Right-Of-Way along CSAH 7 varies in width between 66 feet wide to approximately 100 feet wide. There is also a 10-foot wide Permanent Utility Easement along the east side CSAH 7 where the Right-Of-Way is only 66 feet wide. The posted speed limit for CSAH 7 is 40 MPH. The existing pavement is in fair condition and has been maintained by crack sealing and minor patching as shown in.



Figure 5: CSAH 7 Existing Road Condition

C. WATERMAIN

The existing watermain along CSAH 7 is 8-inch PVC and was constructed in 1994 and is in good condition. The location of the existing watermain is shown in *Appendix B* on *Figure A3*. The watermain is on the east side of CSAH 7 with the hydrants installed approximately 8 feet from the edge of the road. Water services that are 1-inch copper pipe were also installed for all properties along CSAH 7.

D. SANITARY SEWER

The existing sanitary sewer along CSAH 7 is 10-inch PVC and was constructed in 1994 and is in good condition. The location of the existing sanitary sewer is shown in **Appendix B** on **Figure A3**. The sanitary sewer flows from Imhoff Ave along the east side of CSAH 7 to a lift station located at the intersection of CSAH 7 and 1st St E. The lift station pumps the collected sewage through a 4-inch PVC forcemain and then through a 6-inch PVC forcemain along the west side of CSAH 7 to a manhole in the parking lot at Lions Park. This forcemain is also in good condition. Sanitary services that are 4-inch PVC pipe were also installed for all properties along CSAH 7.

E. STORM SEWER

There is currently a drainage ditch as well as culverts that cross driveways of private properties. These pipes are of various sizes and material. Drainage along the west side of CSAH 7 flows toward Howard Lake, and drainage along the east side of CSAH 7 flows either south along an existing drainage ditch, or through an existing drainage easement in yards until it reaches a wetland south of 1st St E. This wetland drains to the east and ultimately to Dutch Lake. Additionally, record drawings from 1940 indicate the presence of 18-inch and 24-inch culverts crossing CSAH 7 in the areas of Stations 21+00 and 28+50 in **Appendix B** on **Figure A3**. It is unknown if these culverts are present and in-use.

F. PRIVATE UTILITIES

Along both sides of CSAH 7 there are existing underground gas mains, electric, fiber optic, and telecommunication cables, manholes, and access pedestals/cabinets as well as overhead electric lines near Imhoff Ave SW. **Figure 6** shows the proximity of some of these private utility structures to the edge of the existing road.



Figure 1: Existing Private Utilities at 1st St. E Intersections

III. PROPOSED CONDITIONS

A. TRAIL IMPROVEMENTS

The proposed typical section for CSAH 7 and the trail is shown in **Appendix B** on **Figure A1**. The MnDOT Road Design Manual requires all paved shoulders to have a minimum bituminous thickness of 3-inches. The proposed trail along CSAH 7 will be on the west side of CSAH 7 and will extend from the northern extents of the parking lot at Lions Park to the intersection of Imhoff Ave SW and CSAH 7 as shown in **Appendix B** on **Figure A3**. According to the MnDOT Bicycle Facility Design Manual, based on current and future traffic volume data, posted speed limit, available Right-Of-Way and Easements, and topography, the proposed trail will be an 8-foot wide paved shoulder. Separated trail options are not a viable option specifically due to the existing Right-Of-Way widths, environmental conditions, and topography. Within the 8-foot paved shoulder, there will be a 2-foot wide buffer zone between the outer edge of the driving lane and the edge of the intended 6-foot wide travel path of bicycles and pedestrians along the trail. There will be trail crossings at both 1st St E and Imhoff Ave SW where the proposed trail will connect with existing trails. According to the Wright County Marked Crosswalk Policy, the proposed CSAH 7 crossing and signage at 1st St E will need to be permitted and approved by Wright County using the forms in **Appendix C**. Additionally, a Rectangular Rapid Flash Beacon (RRFB) system will be installed at the intersection of 1st St. E. in order to enhance pedestrian visibility and safety while crossing CSAH 7.

B. STREET IMPROVEMENTS

Wright County had intended their 2022 Pavement Reservation project to reclaim the existing bituminous surface and repave to meet a 10-ton design road consistent with Minnesota State Aid standards. Design forms included in **Appendix D** were used to determine future traffic volumes and a required pavement section to meet a 10-ton design road. For purposes of pavement design, an assumed common soil type for the area of a silty clay loam was used. Existing traffic counts for pavement design from 2016 were estimated at 2,100 average daily traffic (ADT). The proposed pavement section and typical section for CSAH 7 and the trail is shown in **Appendix B** on **Figure A1**. To meet the requirements of a 10-Ton road design, the bituminous pavement will have a total thickness of 4-inches with 16-inches of aggregate base. The CSAH 7 driving lanes will be narrowed to 11-feet wide per lane, and a 2-foot wide gravel shoulder on the east side of CSAH 7 will be maintained. This width change is consistent with Minnesota State Aid standards.

Due to the proximity of the existing west edge of CSAH 7 and the existing slope towards the shoreline of Howard Lake, the centerline alignment of CSAH 7 will be shifted to the east in order to accommodate the proposed 8-foot wide paved shoulder/path along the west side of CSAH 7. The existing slope west of CSAH 7 will be minimally impacted near the existing edge of the road, and the shoreline of Howard Lake will not be disturbed. **Figure A2** and **Figure A3** in **Appendix B** illustrate the proposed construction typical details, road realignment and trail improvements. There will be “No Parking” signs along the west side of CSAH 7 to ensure the trail is not obstructed by parked vehicles. Additionally, there will be warning signs for the trail crossing at 1st St E. The posted speed limit for CSAH 7 will remain 40 MPH within the path corridor. All improvements will be within the existing Right-Of-Way or Utility Easements and there will be no need to acquire additional Right-Of-Way.

C. WATERMAIN IMPROVEMENTS

There are no proposed watermain improvements related to the 8-inch PVC watermain.

However, due to their proximity to the edge the proposed road, existing hydrants will need to be relocated farther to the east of CSAH 7 as shown in *Appendix B* on *Figure A3*. This will allow CSAH 7 to be widened to accommodate the paved trail while maintaining a safe distance between the edge of the road and the hydrants. There will be scheduled watermain shut-downs that will need to occur in order for the hydrants to be relocated.

D. SANITARY SEWER IMPROVEMENTS

There are no planned improvements to the existing sanitary sewer. Due to CSAH 7 becoming wider and the alignment changing, the manholes may need to be adjusted to meet the new road or ditch grades and elevations.

E. STORM SEWER IMPROVEMENTS

The proposed storm sewer improvements include installing new culverts through driveways into private properties as well as regrading the drainage ditch along the east side of CSAH 7 between 1st St E and Imhoff Ave SW. If centerline culverts are identified and in-use, the eastern ends will need to be extended to match the new ditch slope. Drainage patterns will ultimately remain unchanged.

F. PRIVATE UTILITIES

Private utility owners will be notified of the proposed improvements as well as proposed utility and grade changes. Conflicts with the proposed road or utility improvements will result in the private utility owner relocating their facility to accommodate the proposed improvements.

IV. ESTIMATED COSTS

A. FINANCING

Wright County is intending on utilizing Municipal State Aid Funds to assist in financing the County's portion of the proposed project costs. Financing options for costs that the City will be responsible for are still being investigated. Funding considerations that could be utilized to assist financing the City's portion of the project costs include MNDNR Trail Grant Program, MNDOT ATP Grant Program, and Sidewalk Improvement District.

B. PROJECT COSTS BREAKDOWN

Since portions of the project would be accomplished under a Cooperative Agreement with Wright County, the project costs for realigning CSAH 7 and adding a trail would be shared between the two jurisdictions. The County's level of cost participation along CSAH 7 would generally be based on Wright County's Cost Participation Policy as shown in *Table 1*.

TABLE 1: COST PARTICIPATION		
ITEM	WRIGHT COUNTY PARTICIPATION	CITY PARTICIPATION
Clearing & Grubbing	0%	100%
Excavation/Grading	0%	100%
Engineered Borrow	0%	100%
Class 5 Aggregate Base	0%	100%
Culverts	0%	100%
Bituminous Base Course	100%	0%
Bituminous Wear Course	100%	0%
Municipal Utility Adjustment	0%	100%
Bituminous Trail	0%	100%
Rectangular Rapid Flash Beacon (RRFB)	0%	100%
Mobilization	Pro-Rated	Pro-Rated
Traffic Control	Pro-Rated	Pro-Rated
Erosion Control	Pro-Rated	Pro-Rated

The estimated costs identified are based on projects similar in nature and do not represent actual costs. **Table 2** below summarizes the estimated project cost.

TABLE 2: COST SUMMARY			
ITEM	WRIGHT COUNTY	CITY	TOTAL
Construction Cost	\$238,774.00	\$275,576.00	\$514,350.00
Contingency (10%)	\$23,877.40	\$27,557.60	\$51,435.00
Legal, Engineering, Administration Fees (20%)	\$53,183.79	\$59,973.21	\$113,157.00
Total Project Cost	\$315,835.19	\$363,106.81	\$678,942.00

A contingency factor has been included to account for unaccounted design and construction items not included, or variances in unit prices due to market fluctuations. Estimated legal, engineering, and administration costs are similarly represented. Actual costs would be determined through the competitive bid process with Engineered construction documents for the proposed work. A detailed preliminary quantity and cost estimate for the project is included in **Appendix A**.

V. SCHEDULE

Discussions with Wright County and the City have resulted in a mutual understanding of a schedule to construct the trail. **Table 3** below summarizes a schedule for to facilitate the proposed improvements completed by both identities.

TABLE 3: PROPOSED IMPLEMENTATION SCHEDULE	
Item	Completion Date
Council Review of Engineering Report	September, 2020
Council Requests Expanding Scope to Wright County	October, 2020
Wright County Approves CIP Modification	November, 2020
City / County Enter into Cost Share Agreement	Winter 2021
Begin Design	Winter 2021
Approve of Plans and Specifications & Authorize Advertisement for Bid	Fall 2021
Bid Opening	Feb. - April 2022
Accept Bids & Award Contract	Winter 2022
Construction	Spring - Fall 2022

VI. CONCLUSION

Timing is a very crucial element in this proposed project. There are several steps that will need to be completed per the schedule for this project to move forward. First, the City must formally request Wright County to expand the original scope of the 2022 CSAH 7 Pavement Preservation project to include the addition of a trail. Following the formal request, Wright County will revise their Five-Year Construction Plan to include the trail project (the Five-Year Plan is currently in DRAFT form and are subject to public comments until October 6th). The City will be responsible for design, bidding, and project administration per the proposed implementation schedule.

A “Do Nothing” alternative is not a favorable option considering how many people make use of and the safety of pedestrian and bicycle use along the proposed project route. The timing of this trail project must coincide with County Improvements to share the costs to make this project financially viable. Another opportunity will not arise for this project for another 20 years with the Typical County’s road maintenance program. From an engineering perspective, the proposed improvements are necessary, cost-effective, and feasible.

Appendix A: Preliminary Cost Estimate

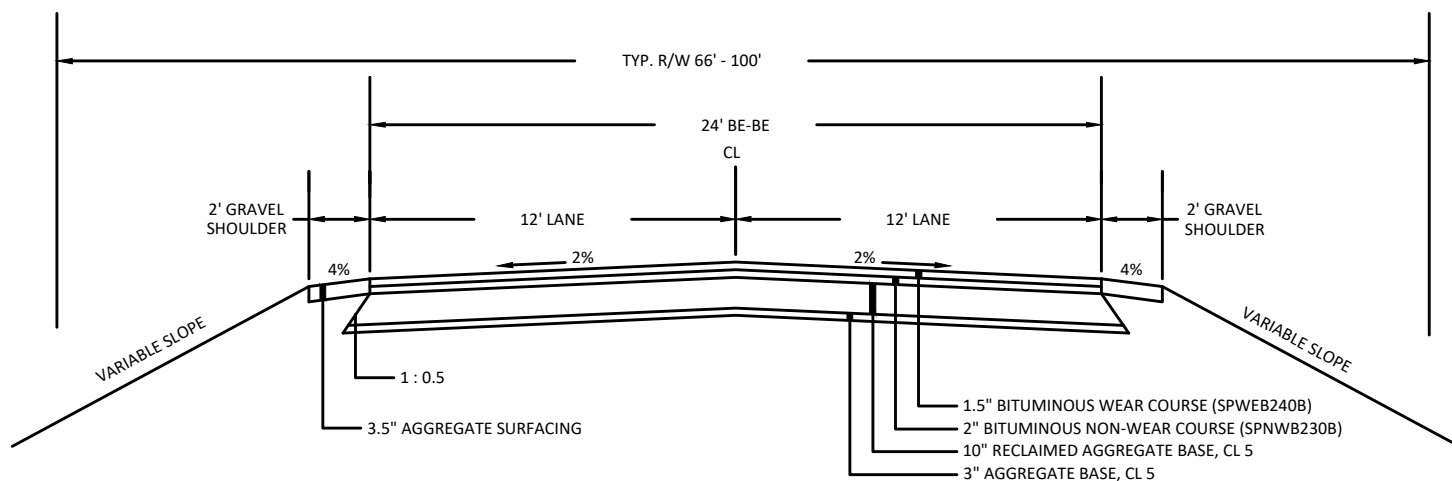
PRELIMINARY COST ESTIMATE
CSAH 7 TRAIL PROJECT
CITY OF HOWARD LAKE, MINNESOTA
BMI Project #W14.112467
9/11/2020

ITEM NO.	ITEM	UNIT	ESTIMATED UNIT PRICE	TOTAL ESTIMATED QUANTITY	TOTAL ESTIMATED COST	COST PARTICIPATION POLICY (COUNTY/CITY)	COST PARTICIPATION BREAKDOWN			
							COUNTY		CITY	
							QUANTITY	COST	QUANTITY	COST
1	MOBILIZATION	LUMP SUM	\$55,000.00	1	\$55,000.00	Pro-rated Share	0.47	\$25,850.00	0.53	\$29,150.00
2	CLEARING	TREE	\$265.00	5	\$1,325.00	0/100		\$0.00	5	\$1,325.00
3	GRUBBING	TREE	\$315.00	5	\$1,575.00	0/100		\$0.00	5	\$1,575.00
4	RECLAIM BITUMINOUS PAVEMENT	SQ YD	\$2.25	8,580	\$19,305.00	100/0	8580	\$19,305.00		\$0.00
5	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$5.00	165	\$825.00	0/100		\$0.00	165	\$825.00
6	SALVAGE SIGN	EACH	\$60.00	8	\$480.00	0/100		\$0.00	8	\$480.00
7	SALVAGE MAILBOX	EACH	\$60.00	7	\$420.00	0/100		\$0.00	7	\$420.00
8	COMMON EXCAVATION (P)	CU YD	\$12.00	710	\$8,520.00	0/100		\$0.00	710	\$8,520.00
9	SUBGRADE EXCAVATION (P) (EV)	CU YD	\$15.00	1,500	\$22,500.00	0/100		\$0.00	1,500	\$22,500.00
10	ENGINEERED BORROW - CLAY (P) (CV)	CU YD	\$26.00	1,000	\$26,000.00	0/100		\$0.00	1,000	\$26,000.00
11	COMMON BORROW (P) (CV)	CU YD	\$12.00	2,210	\$26,520.00	0/100		\$0.00	2,210	\$26,520.00
12	SALVAGE & REINSTALL RECLAIMED AGGREGATE BASE (P)	CU YD	\$8.00	710	\$5,680.00	0/100		\$0.00	710	\$5,680.00
13	SHOULDERING AGGREGATE (P)	CU YD	\$28.00	85	\$2,380.00	100/0	85	\$2,380.00		\$0.00
14	GEOGRID	SQ YD	\$4.50	1,450	\$6,525.00	0/100		\$0.00	1,450	\$6,525.00
15	AGGREGATE BASE (CV) CLASS 5	CU YD	\$28.00	700	\$19,600.00	0/100		\$0.00	700	\$19,600.00
16	TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	\$83.00	1,020	\$84,660.00	100/0	1020	\$84,660.00		\$0.00
17	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	\$81.00	1,020	\$82,620.00	100/0	1020	\$82,620.00		\$0.00
18	TYPE SP 12.5 WEARING COURSE MIX (2,B) - BITUMINOUS TRAIL	TON	\$84.00	400	\$33,600.00	0/100		\$0.00	400	\$33,600.00
19	BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$60.00	130	\$7,800.00	0/100		\$0.00	130	\$7,800.00
19	RELOCATE EXISTING HYDRANT	EACH	\$1,700.00	4	\$6,800.00	0/100		\$0.00	4	\$6,800.00
20	6" GATE VALVE AND BOX	EACH	\$2,400.00	4	\$9,600.00	0/100		\$0.00	4	\$9,600.00
21	6" PVC WATERMAIN, C900	LIN FT	\$50.00	50	\$2,500.00	0/100		\$0.00	50	\$2,500.00
22	12" CMP PIPE CULVERTS	LIN FT	\$35.00	130	\$4,550.00	0/100		\$0.00	130	\$4,550.00
23	12" CMP PIPE APRONS	EACH	\$500.00	12	\$6,000.00	0/100		\$0.00	12	\$6,000.00
24	ADJUST EXISTING GATE VALVE	EACH	\$130.00	3	\$390.00	0/100		\$0.00	3	\$390.00
25	ADJUST EXISTING SANITARY CASTING	EACH	\$325.00	4	\$1,300.00	0/100		\$0.00	4	\$1,300.00
26	TRAFFIC CONTROL	LUMP SUM	\$10,000.00	1	\$10,000.00	Pro-rated Share	0.47	\$4,700.00	0.53	\$5,300.00
27	REINSTALL SIGN	EACH	\$225.00	8	\$1,800.00	0/100		\$0.00	8	\$1,800.00
28	FURNISH & INSTALL SIGN	EACH	\$375.00	2	\$750.00	0/100		\$0.00	2	\$750.00
29	RECTANGULAR RAPID FLASH BEACON (RRFB)	LUMP SUM	\$16,000.00	1	\$16,000.00	0/100		\$0.00	1	\$16,000.00
30	REINSTALL MAILBOX	EACH	\$150.00	7	\$1,050.00	0/100		\$0.00	7	\$1,050.00
29	EROSION CONTROL	LUMP SUM	\$17,000.00	1	\$17,000.00	Pro-rated Share	0.47	\$7,990.00	0.53	\$9,010.00
30	4" DOUBLE SOLID YELLOW, MULTICOMP	LIN FT	\$0.50	2,950	\$1,475.00	100/0	2950	\$1,475.00		\$0.00
31	6" SOLID WHITE, MULTICOMP	LIN FT	\$0.50	8,500	\$4,250.00	100/0	8500	\$4,250.00		\$0.00
32	CROSSWALK, MULTICOMP	CROSS FT	\$4.00	385	\$1,540.00	0/100		\$0.00	385	\$1,540.00
30	SALVAGE & REINSTALL COMMON TOPSOIL BORROW (P)	CU YD	\$14.00	875	\$12,250.00	0/100		\$0.00	875	\$12,250.00
31	TURF ESTABLISHMENT	ACRE	\$8,400.00	1.4	\$11,760.00	Pro-rated Share	0.66	\$5,544.00	0.74	\$6,216.00
CONSTRUCTION COST					\$514,350.00			\$238,774.00		\$275,576.00
CONTINGENCIES (10%)					\$51,435.00			\$23,877.40		\$27,557.60
TOTAL CONSTRUCTION COST					\$565,785.00			\$262,651.40		\$303,133.60
LEGAL, ENGINEERING, ADMINISTRATION (20%)					\$113,157.00	Pro-rated Share	0.47	\$53,183.79	0.53	\$59,973.21
TOTAL PROJECT COST					\$678,942.00			\$315,835.19		\$363,106.81

Appendix B: Typical Sections & Preliminary Design

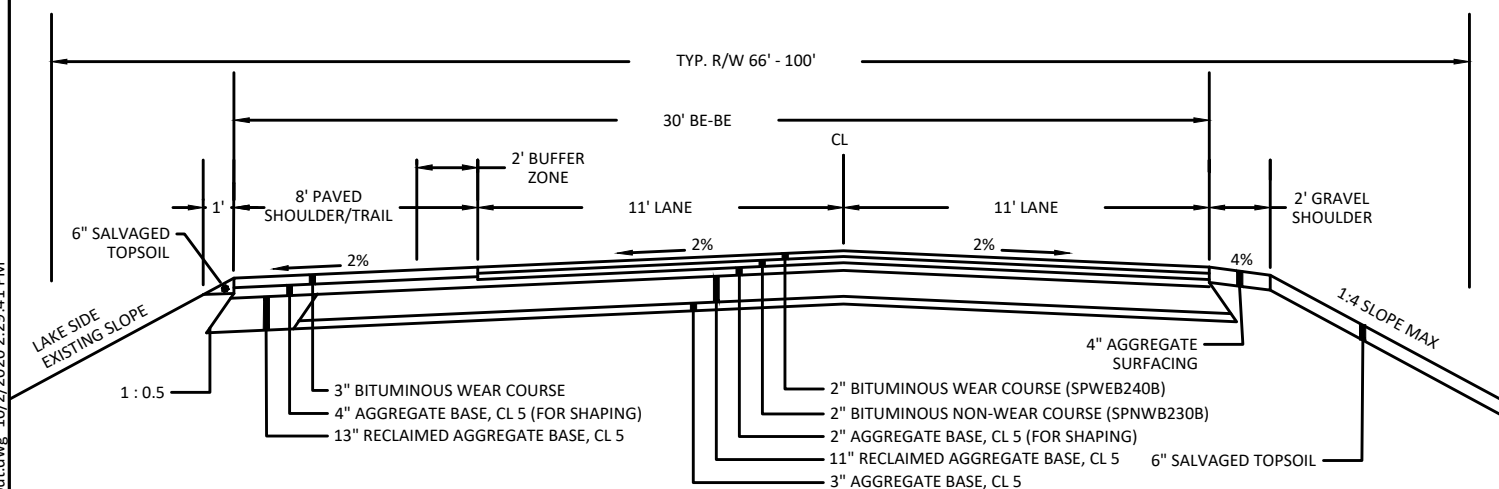
EXISTING TYPICAL

NOT TO SCALE



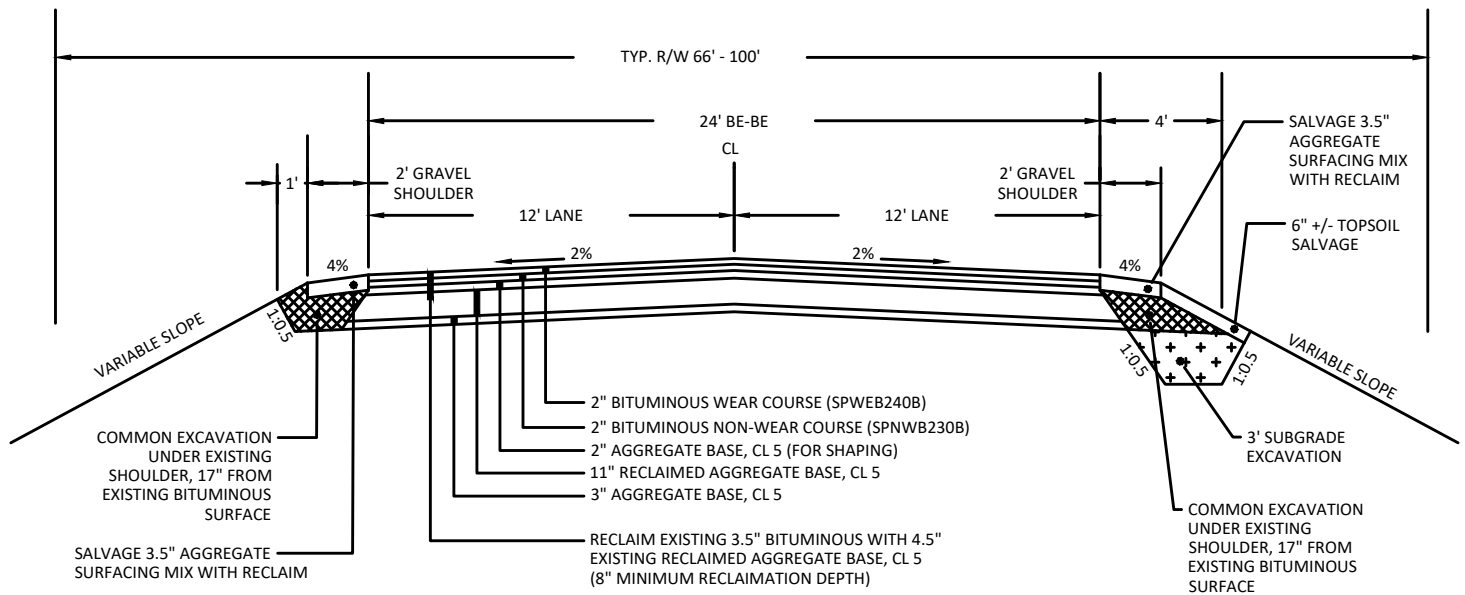
PROPOSED TYPICAL

NOT TO SCALE



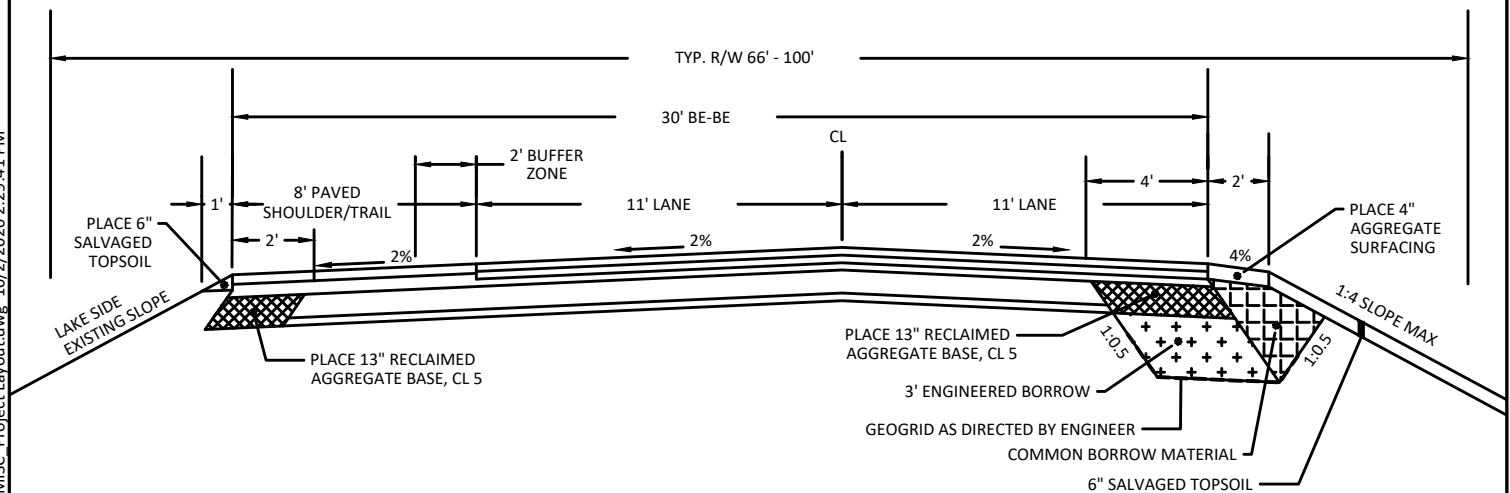
EXISTING CONSTRUCTION TYPICAL DETAIL

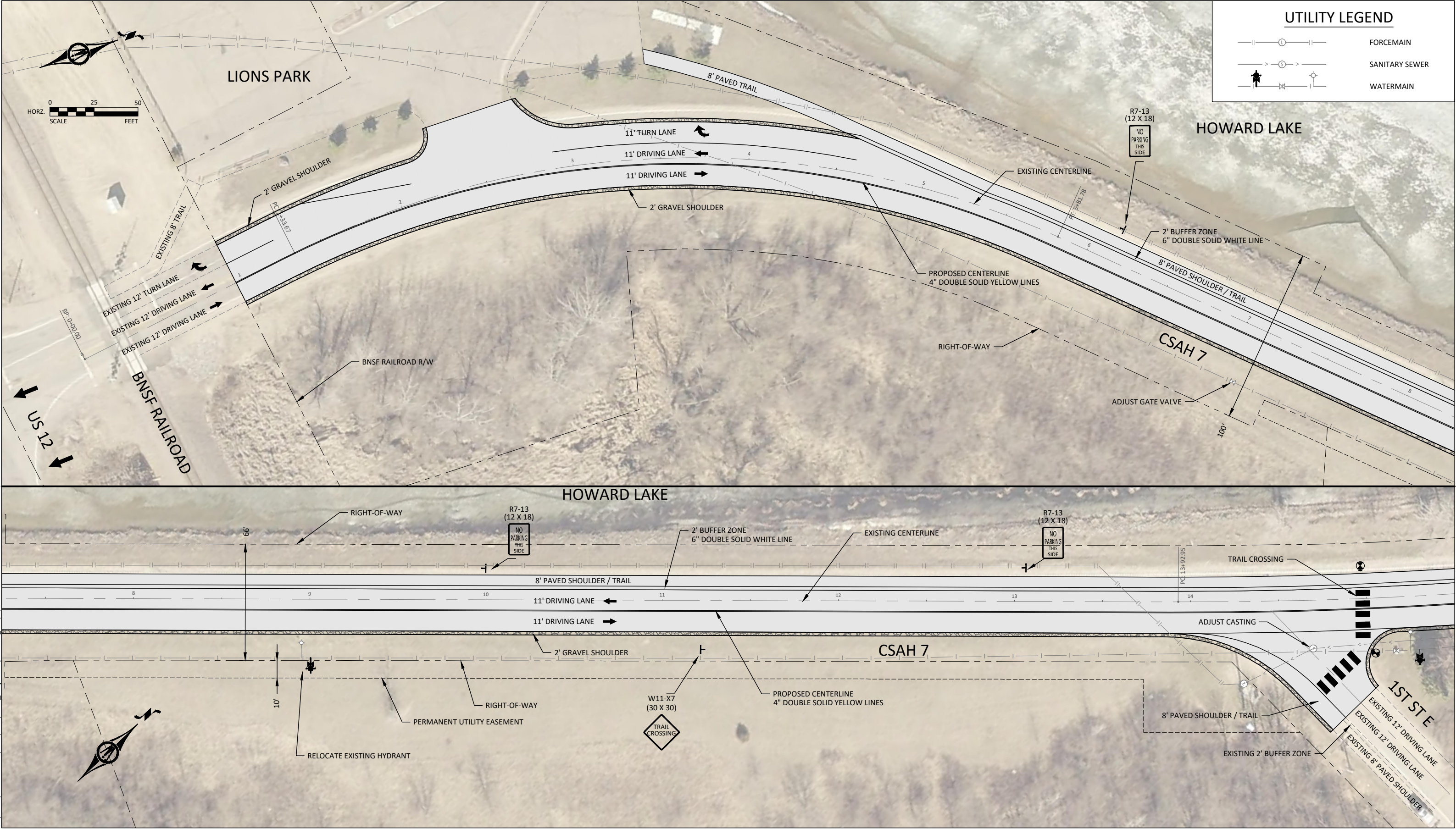
NOT TO SCALE

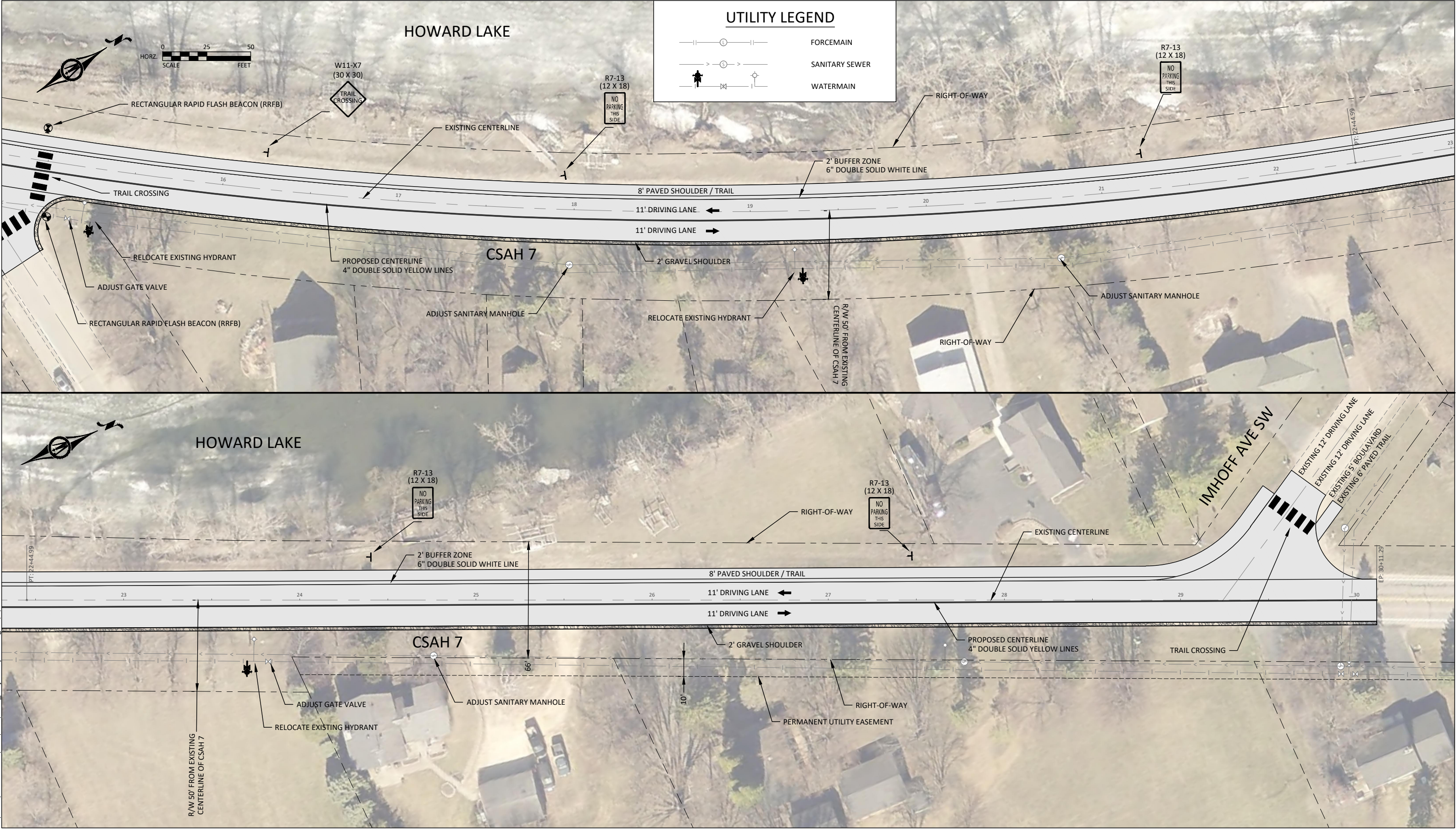


PROPOSED CONSTRUCTION TYPICAL DETAIL

NOT TO SCALE







Appendix C: Wright County Crosswalk Forms



**Wright County
Highway Department**
3600 Braddock Ave NE
Buffalo, MN 55313

Ph: (763)682-7383
Fax: (763)682-7313

VIRGIL HAWKINS, P.E.
Highway Engineer

CHAD HAUSMANN, P.E.
Assistant Highway Engr.

STEVE MEYER
Maintenance
Superintendent

JEREMY CARLSON, P.L.S.
Right-of-Way Agent

SARA BUERMANN, P.E.
Traffic Engineer

Application for Marked Crosswalk Authorization

School District, City, Township or Business: Howard Lake

Route: CSAH 7

Location: North side of intersection of CSAH 7 & 1st St E

Please include map(s)/sketch

- (1) (We) hereby agree to pay all costs associated with the installation and maintenance of the above referenced crosswalk.
- (2) (We) hereby agree to properly train and staff all school crosswalks (when appropriate) during peak crossing periods as provided by Wright County's crosswalk policy (for school zone signing)
- (3) (We) understand that failure to properly install, maintain or staff crosswalks as specified by Wright County's crosswalk policy will be just cause for Wright County to revoke the crosswalk's authorization.
- (4) (We) shall indemnify the County and hold the County harmless from any and all claims related to the engineering, installation, maintenance or staffing of crosswalks currently existing or installed pursuant to this policy.

Return this form to: Sara Buermann, PE
Traffic Engineer
763-682-7391
sara.buermann@co.wright.mn.us

County Use Only

Authorized: _____ Date: _____

Crosswalk Permit Authorization No: _____



**Wright County
Highway Department**
3600 Braddock Ave NE
Buffalo, MN 55313

Ph: (763)682-7383
Fax: (763)682-7313

VIRGIL HAWKINS, P.E.
Highway Engineer

CHAD HAUSMANN, P.E.
Assistant Highway Engr.

STEVE MEYER
Maintenance
Superintendent

JEREMY CARLSON, P.L.S.
Right-of-Way Agent

SARA BUERMANN, P.E.
Traffic Engineer

Application for Installation of "Pedestrian Crossing" Signing on County Highway

City of: Howard Lake

Address: 625 8th Ave, Howard Lake, MN 55349

City Contact: Josh Halvorson Phone: 320-905-3520

Locations:

Signing Location: CSAH/CR 7

at/from US 12 to Imhoff Ave SW

Signing Location: CSAH/CR _____

at/from _____

Signing Location: CSAH/CR _____

at/from _____

Signing Location: CSAH/CR _____

at/from _____

Please attach map(s) of sign locations.

Applicant must read, complete and sign the reverse side (Certifications of Compliance) prior to sign installation.

Return this form to: Sara Buermann, PE
Traffic Engineer
763-682-7391
sara.buermann@co.wright.mn.us

County Use Only

- ☐ Sign Locations approved per attached maps
- ☐ Sign Locations Field Approved

Authorized: _____ Date: _____

CERTIFICATION OF COMPLIANCE

PEDESTRIAN CROSSING SIGNS

- ☒ The City, at its cost and expense, shall fabricate/purchase and install the signs.
- ☒ The sign panel shall be fabricated with 36"x 36" sheet aluminum and use **Black on Fluorescent Yellow Green, DG3 reflective sheeting**, in accordance with current State/County standards. The sign structure shall meet FHWA breakaway standards.
- ☒ All signs shall be installed per the requirements of the most current Minnesota Manual on Uniform Traffic Control Devices.
- ☒ All sign locations shall be field approved by the County.
- ☒ All future maintenance of the signs (knockdowns, replacement, etc.,) shall be the responsibility of the City, at its cost and expense. Failure to properly maintain the signs per County standards shall be cause for removal.

I (we), the undersigned, herewith accept the terms and conditions for the installation of "PEDESTRIAN CROSSING" signs and agree to fully comply herewith to the satisfaction of the Wright County Highway Department.

I (we), shall indemnify and hold the County harmless from any and all claims related to the installation and maintenance of the Pedestrian Crossing Signs.

The Wright County Highway Department **shall remove** the sign(s) for failure to comply with these terms.

Applicants Signature _____ Date: _____

City: _____

Appendix D: Pavement Design

State Aid 10 Ton ESAL Traffic Forecast Calculator

This ESAL calculator is for use with **default Heavy Commerical Traffic values**; click "User Defined Traffic Values" sheet below if you wish to enter your own Heavy Commercial Traffic values.

Instructions: All yellow boxes require an input value.

Dropdown choices are provided for Base Year (C18), Number of Lanes (C19), and Urban or Rural (C21).

You must click on cells C18, C19, and C21 to access the dropdown choices.

General Information

Date
Forecast Performed by
Name of County or City
Project Number
Project Description
Route Number
Base Year (i.e. opening to traffic)
Number of Lanes (total both directions)
Current AADT
Urban or Rural
Historical AADT (enter a minimum of two years)
Enter oldest traffic data here
Enter second oldest traffic data here
Enter third oldest traffic data here
Enter fourth oldest traffic data here
Base Year AADT
20-Year AADT
35-Year AADT
Growth Rate

9-8-2020	
Dylan Idso	
Wright County / Howard Lake	
W14.112467	
CSAH 7 Trail Project	
CSAH 7	
2022	
2 = typical 2 lane	
2,100	
Rural	
Year	AADT
2007	1,954
2009	2,102
2010	2,084
2012	1,950
2022	2,000
2042	2,200
2057	2,350
0.50%	

Vehicle Type	Vehicle Class %	ESAL Factors	
		Flexible	Rigid
2AX-6TIRE SU	2.45%	0.25	0.24
3AX+SU	0.26%	0.58	0.85
3AX TST	0.10%	0.39	0.37
4AX TST	0.15%	0.51	0.53
5AX+TST	5.61%	1.13	1.89
TR TR, BUSES	0.62%	0.57	0.74
TWIN TRAILERS	0.00%	2.40	2.33
Total	9.19%	NA	NA

20-Year Flexible Forecast (10 Ton) = 682,000
 20-Year Rigid Forecast (10 Ton) = 1,081,000
 35-Year Flexible Forecast (10 Ton) = 1,212,000
 35-Year Rigid Forecast (10 Ton) = 1,918,000

Note: This ESAL Calculator provides reasonable estimation of ESAL's based on accurate AADT values. It is limited to an AADT value of 20,000. For roadways exceeding an AADT of 20,000, it is recommended to use the MnDOT ESAL Forecasting Tool found on MnDOT's Pavement Design web page at:

<http://www.dot.state.mn.us/materials/pvmtdesign/software.html>

For State Aid questions and information concerning this tool, please contact State Aid Pavement Engineer Joel Ulring at joel.ulring@state.mn.us or 651-366-3831.

Revised: 6/19/2018

Flexible Pavement Design, R-Value Method

Ver. 1.2

For Bituminous Pavement With Aggregate Base

Inputs

20 Yr Design Lane BESALs =
Design R-value =

682,000
20.0

Project Number

CSAH 7 Trail Project

Designer

Dylan Idso

Date

9/8/2020

GE Values from R-Value Chart

Minimum Bit (GE) = 8.30
Min. Agg. Base (GE) = 6.00
Total Required GE = 23.76



Calculated Pavement Thickness to Meet GE Requirement				
		Thickness (in)	GE	Layer GE
(2360) Wearing Course		3.69	2.25	8.30
(2360) Non-wearing Course		0.00	2.25	0.00
Bituminous Total		3.69	2.25	8.30
		Thickness (in)	GE	Layer GE
Aggregate Base	Class 5, 5Q or 6	6.00	1.00	6.00
Sub Base	Class 3 or 4	12.00	0.75	9.00
Select Granular		0.91	0.50	0.45
	Total	22.60	Total	23.76
	Required*	12.69	Required	23.76

Proposed Pavement Thickness				
New Bituminous		Thickness (in)	GE	Layer GE
Wearing Course	Plant Mix HMA [2350(HV & MV)] ▼	2.0	2.25	4.50
Non-wearing Course	Plant Mix HMA [2350(HV & MV)] ▼	2.0	2.25	4.50
New Bituminous Total		4.0		9.00
Left In-place Bituminous *1		Thickness (in)	GE	Layer GE
In-Place Bituminous	▼		0.00	0.00
Condition *2	New ▼			
	Class	Thickness (in)	GE	Layer GE
Aggregate Layer 1	Aggregate Base (Cl. 5,5Q & 6) ▼	16.0	1.00	16.00
Aggregate Layer 2	▼		0.00	0.00
Aggregate Layer 3	▼		0.00	0.00
Select Granular			0.50	0.00
Aggregate Total		16.0		16.00
	Total	20.00	Total	25.00
			Required	23.76
Messages				
Total GE: GOOD				
Bituminous Thickness: GOOD				
Total Aggregate Base Thickness: GOOD				

Last Edited 6/5/19

Appendix E: State Aid Requirements

Subp. 24. **Local highway or street department.** "Local highway or street department" means the highway or appropriate department of each county and each urban municipality.

Subp. 25. **Local road research board.** "Local road research board" means a board appointed in accordance with part 8820.3200 to recommend specific research projects to the commissioner.

Subp. 26. **Natural preservation route.** "Natural preservation route" means an existing or proposed roadway that has been designated as a natural preservation route in accordance with Minnesota Statutes, section 162.021, by the commissioner upon petition by a county board and that possesses sensitive or unique scenic, environmental, pastoral, or historical characteristics.

Subp. 27. **Needs report.** "Needs report" means a report of the estimated construction cost required to improve a state-aid system to standards adequate for future traffic on a uniform basis.

Subp. 28. **Paved shoulder.** "Paved shoulder" means a part of a highway which is contiguous to the regularly traveled portion of the highway and is on the same level as the highway.

Subp. 29. **Project development costs.** "Project development costs" are any costs (1) incurred before a contract is awarded and (2) attributable to the development of a project on a designated state-aid route. These costs include, but are not limited to, costs for preparation of environmental documentation, special studies or reports, historical or archaeological reviews, project design, costs of obtaining permits, and public involvement, but does not include costs for acquiring right-of-way.

Subp. 30. **Reconditioning.** "Reconditioning" includes resurfacing, replacement, or rehabilitation of the pavement structure to extend the life of the roadway and effectively address critical safety and operations needs through minor improvements to the existing facility. Reconditioning projects generally utilize the existing horizontal and vertical alignment, may entail minor widening or geometric improvement, and normally require little or no additional right-of-way. Reconditioning may include changes in vertical or horizontal alignment involving no more than 20 percent of the length of the project. Reconditioning may include curb replacement along no more than 20 percent of the length of the project, not including curb replacement for purposes of meeting the Americans with Disabilities Act requirements. Work does not normally extend beyond the existing ditch bottom.

Subp. 31. **Reconstruction.** "Reconstruction" means (1) the replacement of an existing roadway on a similar alignment or (2) the replacement of an existing bridge with a completely new bridge.

Subp. 31a. **Rural.** "Rural" means a roadway that includes ditches and is located in an area that is not presently, nor will it be in the foreseeable future, sufficiently developed to warrant use of an urban design.

Subp. 32. **Screening board.** "Screening board" means the county screening board or municipal screening board appointed in accordance with law and authorized to recommend to the commissioner the size and money needs for each of their state-aid systems.

Subp. 33. **Shared lane.** "Shared lane" means any roadway or travel lane upon which a separate bicycle lane is not designated and which bicycles may legally use, whether or not such facility is specifically designated as a bikeway or bicycle route.

Subp. 34. **Shared use path.** "Shared use path" means a bikeway that is physically separated from a roadway or shoulder by the use of an open space buffer or physical barrier. A shared use path can also be used by a variety of nonmotorized users such as pedestrians, joggers, skaters, and wheelchair users.

Subp. 35. [Repealed, 42 SR 485]

8820.9925 [Repealed, 20 SR 1041]

8820.9926 MINIMUM DESIGN STANDARDS: RURAL AND SUBURBAN UNDIVIDED; RECONDITIONING PROJECTS.

Subpart 1. **Minimum reconditioning standards.** Reconditioning projects for rural or suburban undivided roadways must meet or exceed the minimum dimensions indicated in the following design chart. See part 8820.0200, subpart 30, for the description of activities allowed.

Existing ADT	Statutory or Regulatory Posted Speed	Lane Width (Paved)	Combined Lane (Paved) and Shoulder Width
1-749	45 mph or less	10 feet	11 feet
1-749	50 mph or over	10 feet	12 feet
750 and over	45 mph or less	10 feet	12 feet
750 and over	50 mph and over	11 feet	14 feet

When the road authority has determined that the roadway will be specifically designed to include on-road bicycle facilities, and only if the roadway surface is paved, the appropriate design criteria in the current MnDOT Bikeway Facility Design Manual are recommended for design purposes.

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

Widths of bridges to remain in place must equal roadway pavement width. Bridges narrower than these widths may remain in place provided that the bridge does not qualify for federal-aid bridge funds. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Any highway that was previously built to state-aid or state standards, that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, may be reconditioned.

The proposed structural design strength must accommodate a minimum of seven tons per axle.

Subp. 2. [Repealed, 23 SR 1455]

Statutory Authority: *MS s 14.386; 162.02; 162.09; 162.155*

History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 37 SR 697; 42 SR 485*

8820.9930 [Repealed, 20 SR 1041]

8820.9931 [Repealed, 23 SR 1455]

8820.9935 [Repealed, 20 SR 1041]

Number of Through Lanes	Present ADT	Total Width with No Parking (feet)	Total Width with Parking on One Side (feet)	Total Width with Parking on Both Sides (feet)	Proposed Structural Design Strength (tons)
2-Lane	< 5,000	21	29	37	7
	5,000-10,000	23	31	39	9
	10,000-15,000	23	31	39	9
	≥ 15,000	24	32	40	9
3-Lane	All	34	42	50	9

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus half the sum of the shoulders, parking lane, and curb reaction distance. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Subp. 3. **Exception.** Any street that was previously built to state-aid or state standards, or that was granted a variance to standards in effect at the time of construction or reconstruction, or that is a trunk highway turnback, but does not meet current standards, may be reconditioned regardless of subparts 1 and 2.

Statutory Authority: *MS s 14.386; 14.389; 162.02; 162.09; 162.155*
History: *20 SR 1041; 23 SR 1455; 24 SR 1885; 29 SR 449; 36 SR 925; 37 SR 697; 42 SR 485*

8820.9950 [Repealed, 20 SR 1041]

8820.9951 MINIMUM DESIGN STANDARDS, ON-ROAD BICYCLE FACILITIES FOR URBAN; RECONDITIONING PROJECTS.

The bicycle facility design standard in this part applies when the road authority has determined that the roadway will be specifically designed to include an on-road bicycle facility.

Reconditioning projects for urban roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Number of Through Lanes and Present Traffic Volume	Design Speed	Lane Width (a)	Parking Lane Width (d)	Proposed Structural Design Strength	Bikeway Design	
	(mph)	(feet)	(feet)	(tons)	(ADT)	(feet)
Two-Lane with ADT <10,000	25-30	10-11 (b)-(c)	7-8	9 (e)	<1,000	SL
					1,000-5,000	WOL 14-16 or BL 5-6
					5,000-10,000	BL 5-6
	35-45	10-11 (b)-(c)	7-8	9 (e)	<500	SL or BL 5-6
					500-10,000	BL 5-6 or PS 8
Two-Lane With ADT >10,000 (a)	50 or over	11-12	8-10	9 (e)	<10,000	BL 5-6 or PS 8 or SUP
	25-30	10-11 (b)-(c)	7-10	9	>10,000	BL 5-6
	35-45	10-11 (b)-(c)	7-10	9	>10,000	BL 5-6 or PS 8 or SUP
Four-Lane with ADT <10,000	50 or over	11-12	Not allowed	9	>10,000	BL 6 or PS 8-10 or SUP
	25-30	10-11 (b)-(c)	7-8	9 (e)	<10,000	WOL 14-16 or BL 5-6
	35-45	10-11 (b)-(c)	7-8	9 (e)	<10,000	BL 5-6
Four-Lane with ADT >10,000	50 or over	11-12	8-10	9 (e)	<10,000	BL 5-6 or PS 8 or SUP
	30-45	10-11 (c)	7-10	9	>10,000	BL 6 or PS 8-10 or SUP
Six-Lane	50 or over	11-12	Not allowed	9	>10,000	BL 6 or PS 8-10 or SUP
		11-12	Not allowed	9	Not allowed	SUP

(SL = shared lane; BL = bicycle lane; WOL = wide outside lane; PS = paved shoulder; SUP = shared use path)

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses,

functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) Eleven feet minimum is required on four-lane, undivided facilities. Twelve feet should be considered in industrial areas.

(b) Ten feet may be considered where truck and bus volumes are relatively low, rights-of-way are constrained, and design speeds are 35 mph or less.

(c) A combination of all minimum widths for the driving lane, on-road bicycle lane, and parking lane is only permissible with a variance.

(d) In determining the parking lane width, the roadway ADT and the vehicle mix shall be taken into consideration. In commercial or industrial areas, the minimum parking lane width is eight feet.

(e) When ADT is less than 5,000, seven-ton axle load structural design strength is permissible.

A minimum curb reaction of one foot shall be provided unless on-street parking, a bicycle facility, or a wide outside lane are provided adjacent to the curb. The dimensions for wide outside lanes include the curb reaction distance. When a raised median is included in the design of the two-way roadway, a one-foot minimum curb reaction distance to the median is required on either side of the median. Minimum median width is four feet.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus one-half the sum of the shoulders, parking lane, and curb reaction distance. Bridges to remain must have a load rating factor of at least 0.75 using the AASHTO Manual for Bridge Evaluation, LRFR (load and resistance factor rating) for inventory level.

Statutory Authority: *MS s 14.386; 162.02; 162.155*

History: *37 SR 697; 42 SR 485*

8820.9955 [Repealed, 20 SR 1041]

8820.9956 MINIMUM VERTICAL CLEARANCES FOR UNDERPASSES.

Underpass projects must meet or exceed the minimum dimensions indicated in the following design chart.

	Rural-Suburban Design, Vertical Clearance (feet-inches)	Urban Design, Vertical Clearance (feet-inches)
Highway under Roadway Bridge	16-4	14-6
Highway under Railroad Bridge	16-4	14-6
Highway under Pedestrian Bridge	17-4	15-6 (a)
Highway under Sign Structure	17-4	15-6 (a)
Railroad under Roadway Bridge (b)	22-0	22-0

(a) For replacement of skyway structures, the minimum clearance over traveled way is the existing structure clear height.

(b) Variances to the required minimum may be granted by the commissioner of transportation. That approval eliminates the need for a state-aid variance.

Statutory Authority: *MS s 162.02; 162.09*

History: *20 SR 1041; 23 SR 1455; L 1998 c 403 s 29; 24 SR 1885; 29 SR 449*

8820.9960 MR 1995 [Obsolete, MS s 14.47, subd. 6, paragraph (b)]



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Purchase of Tanker Truck for the Fire Department

SECTION: New Business

FROM: Nick Haggenmiller, City Administrator

BACKGROUND: The fire department has identified the need for a new tanker/pumper truck. Chief Bobrowske has obtained proposed specifications and pricing for the vehicle. The Fire Department has an established capital improvement plan and related fund. This purchase fits within the scope of both the plan financial capacity of the department.

The proposed equipment is a 2020 Rosenbauer Tank with Freightliner Chassis at a cost of \$333,177.

DECISION MAKING METRICS:

FINANCIAL: \$333,177. The HLFD currently has about \$350,000 in their capital fund, which does not include 2020 Capital Transfers.

LEGAL: This purchase is being brought forward under the City's membership in SourceWell (formerly the National Joint Powers Association). Doing so, negates the need for sealed bids.

STRATEGIC PLAN: Deliver High Quality Public Services

COUNCIL ACTION REQUESTED: Approve the purchase of the Rosenbauer Tanker.

ATTACHMENTS:

1. Rosenbauer Proposal
2. Specifications
3. Warranty



PURCHASE ORDER

Purchaser		SUPPLIER	
Member #	100000	Contract #	Sourcewell Contract #: 022818-RSB
Purchaser:	City of Howard Lake	Supplier:	Rosenbauer South Dakota, LLC
Address 1:	625 8th Avenue	Address 1:	100 3rd Street
Address 2:	P.O. Box 736	Address 2:	
City, State, Zip:	Howard Lake, MN 55349	City, State, Zip:	Lyons, SD 57041

Purchase Order Number:	100920	Delivery in Calendar Days:	395
Date:	10/9/2020		

Quantity	Description	Price	Price (Extended)
1	One (1) Rosenbauer Tanker, complete with Freightliner chassis per attached specifications.	\$333,177.00	\$333,177.00
NOTE: If chassis amount of \$95,496.00 is NOT paid upon chassis arrival at the plant in Lyons SD, ADD \$ 3,820.00			
*Note: If chassis amount of \$0.00 is paid upon arrival at our plant in South Dakota, deduct \$0.00 each			
TOTAL			\$333,177.00

NOTES:	
--------	--

Rosenbauer Dealer :	Heiman Fire Equipment
Salesperson:	Dave Brunnette
Signature:	

Purchaser:	City of Howard Lake
Print Name:	
Title:	
Date	
Signature:	



APPENDIX C CHANGE ORDER POLICY

This change order policy is intended to reflect the increased cost of changes which result in delayed deliveries, confused paperwork, poor production flow and increased potential of trucks being built to incorrect specifications. With your cooperation, changes can be kept to a minimum which means we will be able to reduce lead times, increase production and maintain costs which will benefit all of us.

Our objective is accurate, high quality and on-time deliveries exceeding our customer expectations.

Changes any time after the order is received may delay the quoted delivery date. Significant design or component changes will have the largest impact on the schedule and quoted delivery date. Changes that occur later in the process will also have the largest impact on the schedule and quoted delivery date.

All time fences are reference to contract execution date if not otherwise stated.

Change Window #1

All changes will be priced at standard pricing and specials will be priced through our normal process. Significant changes made to the vehicle during this time period may result in a delivery extension.

RBM Chassis	0-60 days
RBA Aerial	0-60 days
Rosenbauer Body	0-60 days

Change Window #2

All changes are subject to a 25% mark-up, as well as a \$250.00 change order processing fee. All changes are subject to factory review and may be denied due to engineering or lead time issues.

RBM Chassis	61-75 days
RBA Aerial	61-75 days
Rosenbauer Body	61-120 days

Change Window #3

All changes are subject to a 50% mark-up, and 50% restocking fee on deleted items, as well as a \$250.00 change order processing fee. All changes are subject to factory review and may be denied due to engineering or lead time issues. No major components can be changed at this time; major components are considered engine, transmission, axles, suspension, cab, frame (wheelbase), seats, water pump and water tank.

RBM Chassis	76-120 days
RBA Aerial	76-120 days
Rosenbauer Body	121-180 days

Change Window #4

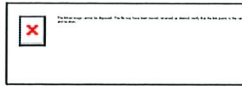
Changes are not recommended at this time. Any changes requested will be priced on a time and material basis, as well as a \$500.00 change order processing fee. Any changes requested, and that are quoted to the customer, must be approved by the customer within three days or they will not be valid.

RBM Chassis	After 120 days
RBA Aerial	After 120 days
Rosenbauer Body	After 180 days

**Note: Any late change orders that are factory driven will be done at cost and no additional mark up or penalties will apply.*

BUYER INITIALS: _____

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Phone: 605-336-2995

SPECIFICATION PROPOSAL

Description	Weight Front	Weight Rear
Price Level		
M2 PRL-23M (EFF:01/21/20)		
Data Version		
SPECPRO21 DATA RELEASE VER 035		
Vehicle Configuration		
M2 106 CONVENTIONAL CHASSIS	5,709	3,503
2022 MODEL YEAR SPECIFIED		
SET BACK AXLE - TRUCK		
STRAIGHT TRUCK PROVISION		
LH PRIMARY STEERING LOCATION		
General Service		
TRUCK CONFIGURATION		
DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
FIRE SERVICE		
EMERGENCY VEHICLES BUSINESS SEGMENT		
LIQUID BULK COMMODITY		
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
MAXIMUM 8% EXPECTED GRADE		
SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
MEDIUM TRUCK WARRANTY		
EXPECTED FRONT AXLE(S) LOAD : 16000.0 lbs		
EXPECTED REAR DRIVE AXLE(S) LOAD : 46000.0 lbs		
EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 62000.0 lbs		



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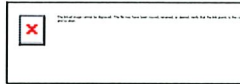
Description	Weight Front	Weight Rear
Truck Service		
FIRE TANK/PUMPER - MAIN DRIVELINE DRIVEN SPLIT-SHAFT PTO/PUMP EXPECTED TRUCK BODY LENGTH : 0.0 ft ROSENBAUER EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine		
CUM L9 360EV HP @ 2200 RPM, 2200 GOV RPM, 11500 LB/FT @ 1200 RPM, R/F/E	640	30
Electronic Parameters		
60 MPH ROAD SPEED LIMIT CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT PTO MODE ENGINE RPM LIMIT - 1100 RPM PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED PTO RPM WITH CRUISE SET SWITCH - 700 RPM PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM PTO MODE CANCEL VEHICLE SPEED - 5 MPH PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND FUEL DOSING OF AFTERTREATMENT ENABLED IN PTO MODE-CLEANS HYDROCARBONS AT HIGH TEMPERATURES ONLY PTO MINIMUM RPM - 700 REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
Engine Equipment		
2016 ONBOARD DIAGNOSTICS/2010 EPA/CARB/GHG21 CONFIGURATION 2008 CARB EMISSION CERTIFICATION - EXEMPTED VEHICLE; NO CLEAN IDLE LABEL REQUIRED STANDARD OIL PAN ENGINE MOUNTED OIL CHECK AND FILL SIDE OF HOOD AIR INTAKE WITH NFPA COMPLIANT EMBER SCREEN AND FIRE RETARDANT DONALDSON AIR CLEANER DR 12V 275 AMP 40-SI BRUSHLESS PAD ALTERNATOR WITH REMOTE BATTERY VOLTAGE SENSE	10	



The letter "X" will be required. The "X" has been used several times in the past with the letter "X" in the past.

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Description	Weight Front	Weight Rear
COMBINATION FULL FLOW/BYPASS OIL FILTER		
1100 SQUARE INCH ALUMINUM RADIATOR	70	
ANTIFREEZE TO -34F, ETHYLENE GLYCOL PRE-CHARGED SCA HEAVY DUTY COOLANT		
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
AUXILIARY ENGINE COOLING USING WATER FROM FIRE PUMP	10	
LOWER RADIATOR GUARD		
ALUMINUM FLYWHEEL HOUSING		
ELECTRIC GRID AIR INTAKE WARMER		
DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH		

Transmission

ALLISON 3000 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION	200	60
--	-----	----

Transmission Equipment

ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL EVS

ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES

PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

ENGINE BRAKE RANGE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE



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Description	Weight Front	Weight Rear
ENGINE BRAKE RANGE ALTERNATE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED		
DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES		
VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT END OF FRAME		
ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED		
(2) CUSTOMER INSTALLED MUNCIE CS10 SERIES PTO'S		
PTO MOUNTING, LH SIDE AND TOP RH SIDE OF MAIN TRANSMISSION		
MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
PUSH BUTTON ELECTRONIC SHIFT CONTROL DASH MOUNTED IN RG PANEL WITH NO SWITCHES OR GAUGES MOUNTED ABOVE SHIFTER		
TRANSMISSION PROGNOSTICS - ENABLED 2013		
WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK		
TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK		
SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		

Front Axle and Equipment

DETROIT DA-F-16.0-5 16,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190
MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10
FIRE AND EMERGENCY SEVERE SERVICE, NON-ASBESTOS FRONT LINING	
CAST IRON OUTBOARD FRONT BRAKE DRUMS	
FRONT OIL SEALS	
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	
STANDARD SPINDLE NUTS FOR ALL AXLES	
MERITOR AUTOMATIC FRONT SLACK ADJUSTERS	
TRW TAS-85 POWER STEERING	40



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Description	Weight Front	Weight Rear
POWER STEERING PUMP		
2 QUART SEE THROUGH POWER STEERING RESERVOIR		
CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension		
16,000# TAPERLEAF FRONT SUSPENSION	200	
MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION		
FRONT SHOCK ABSORBERS		
Rear Axle and Equipment		
RT-46-160 46,000# R-SERIES TANDEM REAR AXLE		2,960
5.38 REAR AXLE RATIO		
IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING		
MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	20	20
MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES		
DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		30
(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD- REAR AND REAR-REAR AXLE VALVE		
BLINKING LAMP WITH EACH INTERAXLE LOCK SWITCH, INTERAXLE UNLOCK DEFAULT WITH IGNITION OFF		
BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH		
MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		
FIRE AND EMERGENCY SEVERE SERVICE NON- ASBESTOS REAR BRAKE LINING		
STANDARD BRAKE CHAMBER LOCATION		
CAST IRON OUTBOARD REAR BRAKE DRUMS		-20
REAR OIL SEALS		
HALDEX GOLDSEAL LONGSTROKE 2-DRIVE AXLES SPRING PARKING CHAMBERS		20
HALDEX AUTOMATIC REAR SLACK ADJUSTERS		
CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		



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100 3RD ST
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Description	Weight Front	Weight Rear
Rear Suspension		
HENDRICKSON RT463 @46,000# REAR SUSPENSION		810
HENDRICKSON RT/RTE - 7.19" SADDLE		
STANDARD AXLE SEATS IN AXLE CLAMP GROUP		
52 INCH AXLE SPACING		
STEEL BEAMS AND BRONZE CENTER BUSHINGS WITH BAR PIN ADJUSTABLE END CONNECTIONS		
FORE/AFT CONTROL RODS		
Brake System		
AIR BRAKE PACKAGE		
WABCO 4S/4M ABS WITH TRACTION CONTROL, WIH ATC OFF-ROAD SWITCH		
REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
FIBER BRAID PARKING BRAKE HOSE		
STANDARD BRAKE SYSTEM VALVES		
STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
STD U.S. FRONT BRAKE VALVE		
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		
BW AD-9 BRAKE LINE AIR DRYER WITH HEATER	20	
AIR DRYER MOUNTED INBOARD ON LH RAIL		
STEEL AIR TANKS MOUNTED AFT INSIDE AND/OR BELOW FRAME JUST FORWARD OF REAR SUSPENSION, NO TRIPLE OR TORPEDO TANKS		
CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET BOTH RAILS OUTBOARD		
BW DV-2 AUTO DRAIN VALVE WITHOUT HEATER ON ALL TANK(S)		
Trailer Connections		
UPGRADED CHASSIS MULTIPLEXING UNIT		
UPGRADED BULKHEAD MULTIPLEXING UNIT		
Wheelbase & Frame		
6225MM (245 INCH) WHEELBASE		
11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI	360	150



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Description	Weight Front	Weight Rear
1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT	200	410
2150MM (85 INCH) REAR FRAME OVERHANG		
FRAME OVERHANG RANGE: 81 INCH TO 90 INCH	-40	190
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 179.53 in		
CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 176.53 in		
CALC'D FRAME LENGTH - OVERALL : 359.07		
CALCULATED FRAME SPACE LH SIDE : 123.31 in		
CALCULATED FRAME SPACE RH SIDE : 139.38 in		
CALC'D SPACE AVAILABLE FOR DECKPLATE : 179.45 in		
SQUARE END OF FRAME		
FRONT CLOSING CROSSMEMBER		
LIGHTWEIGHT HEAVY DUTY ALUMINUM ENGINE CROSSMEMBER	-12	
STANDARD CROSSMEMBER BACK OF TRANSMISSION		
STANDARD MIDSHIP #1 CROSSMEMBER(S)		
STANDARD REARMOST CROSSMEMBER		
STANDARD SUSPENSION CROSSMEMBER		

Chassis Equipment

THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS	30
FRONT TOW HOOKS - FRAME MOUNTED	15
BUMPER MOUNTING FOR SINGLE LICENSE PLATE	
FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS	
GRADE 8 THREADED HEX HEADED FRAME FASTENERS	
TANK BODY 1501 TO 3000 GALLONS	

Fuel Tanks

50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	20
RECTANGULAR FUEL TANK(S)	
PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS	
FUEL TANK(S) FORWARD	



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Description	Weight Front	Weight Rear
PLAIN STEP FINISH		
FUEL TANK CAP(S)		
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	-5	
EQUIFLO INBOARD FUEL SYSTEM		
HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
FUEL COOLER MOUNTED LEFT HAND IN RAIL	10	
Tires		
MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES	100	
MICHELIN XDN2 11R22.5 14 PLY RADIAL REAR TIRES		144
Hubs		
CONMET PRESET PLUS PREMIUM IRON FRONT HUBS		
CONMET PRESET PLUS PREMIUM IRON REAR HUBS		
Wheels		
ALCOA ULTRA ONE 89U64X 22.5X9.00 10-HUB PILOT 5.99 INSET ALUMINUM FRONT WHEELS	-28	
ALCOA LVL ONE 88267X 22.5X8.25 10-HUB PILOT ALUMINUM DISC REAR WHEELS		-200
POLISHED FRONT WHEELS; OUTSIDE ONLY		
POLISHED REAR WHEELS; OUTSIDE OF OUTER WHEELS ONLY		
FRONT WHEEL MOUNTING NUTS		
REAR WHEEL MOUNTING NUTS		
Cab Exterior		
106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB		
AIR CAB MOUNTING		
LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT		
HOOD MOUNTED CHROMED PLASTIC GRILLE		
CHROME HOOD MOUNTED AIR INTAKE GRILLE		
FIBERGLASS HOOD		
SINGLE ELECTRIC HORN		
ALL UNIT(S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1031		
KEY QUANTITY OF 2		
REAR LICENSE PLATE MOUNT END OF FRAME		



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Description	Weight Front	Weight Rear
INTEGRAL HEADLIGHT/MARKER ASSEMBLY WITH CHROME BEZEL		
LED AERODYNAMIC MARKER LIGHTS		
DAYTIME RUNNING LIGHTS		
OMIT STOP/TAIL/BACKUP LIGHTS AND PROVIDE WIRING WITH SEPARATE STOP/TURN WIRES TO 4 FEET BEYOND END OF FRAME		-5
STANDARD FRONT TURN SIGNAL LAMPS		
AUTOMATIC ON/OFF, ENGINE COMPARTMENT, HOOD ACTIVATED WORK LIGHT WITH MANUAL OVERRIDE	1	
DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE		
DOOR MOUNTED MIRRORS		
102 INCH EQUIPMENT WIDTH		
LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
STANDARD SIDE/REAR REFLECTORS		
ELECTRIC HORN WARNING SYSTEM FOR PARK BRAKE NOT SET WITH DOOR OPEN AND ALL IGNITION KEY POSITIONS		
63X14 INCH TINTED REAR WINDOW		
TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS		
MANUAL DOOR WINDOW REGULATORS		
1-PIECE ROPED-IN SOLAR GREEN GLASS WINDSHIELD		
2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED		

Cab Interior

OPAL GRAY VINYL INTERIOR	
MOLDED PLASTIC DOOR PANEL	
MOLDED PLASTIC DOOR PANEL	
BLACK MATS WITH SINGLE INSULATION	
FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING	
IN DASH STORAGE BIN	
(2) CUP HOLDERS LH AND RH DASH	
GRAY/CHARCOAL FLAT DASH	
SMART SWITCH EXPANSION MODULE	
5 LB. FIRE EXTINGUISHER	10



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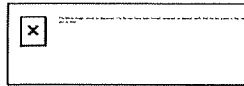
Description	Weight Front	Weight Rear
HEATER, DEFROSTER AND AIR CONDITIONER		
STANDARD HVAC DUCTING		
MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
STANDARD HEATER PLUMBING		
VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR		
BINARY CONTROL, R-134A		
PREMIUM INSULATION		
SOLID-STATE CIRCUIT PROTECTION AND FUSES		
12V NEGATIVE GROUND ELECTRICAL SYSTEM		
DOMED DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF		
CAB DOOR LATCHES WITH MANUAL DOOR LOCKS		
(1) 12 VOLT POWER SUPPLY IN DASH		
TRIANGULAR REFLECTORS KIT WITHOUT FLARES SHIPPED LOOSE IN CAB	10	
SEATS INC 911 UNIVERSAL SERIES HIGH BACK AIR SUSPENSION DRIVER SEAT WITH NFPA 1901-2009/2016 COMPLIANT SEAT SENSOR	50	
SEATS INC 911 UNIVERSAL SERIES HIGH BACK NON SUSPENSION PASSENGER SEAT WITH UNDERSEAT STORAGE AND NFPA 1901-2009/2016 COMPLIANT SEAT SENSOR	25	10
LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
BLACK CORDURA PLUS CLOTH DRIVER SEAT COVER		
BLACK CORDURA PLUS CLOTH PASSENGER SEAT COVER		
NFPA 1901-2009 HIGH VISIBILITY ORANGE SEAT BELTS		
ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	10	
4-SPOKE 18 INCH (450MM) STEERING WHEEL		
DRIVER AND PASSENGER INTERIOR SUN VISORS		

Instruments & Controls

GRAY DRIVER INSTRUMENT PANEL
 GRAY CENTER INSTRUMENT PANEL
 ENGINE REMOTE INTERFACE WITH PARK BRAKE AND NEUTRAL INTERLOCKS
 BLACK GAUGE BEZELS

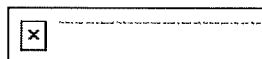


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Description	Weight Front	Weight Rear
LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
ENGINE COMPARTMENT MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS, WITH WARNING LIGHT IN DASH		
ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
2 INCH ELECTRIC FUEL GAUGE		
ENGINE REMOTE INTERFACE NOT CONFIGURED		
ENGINE REMOTE INTERFACE CONNECTOR IN ENGINE COMPARTMENT		
ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
ELECTRONIC STABILITY CONTROL		
ELECTRIC ENGINE OIL PRESSURE GAUGE		
OVERHEAD INSTRUMENT PANEL		
ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
STANDARD VEHICLE SPEED SENSOR		
ELECTRONIC 3000 RPM TACHOMETER		
IDLE LIMITER, ELECTRONIC ENGINE		
DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH		



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Description	Weight Front	Weight Rear
ONE VALVE PARKING BRAKE SYSTEM WITH DASH VALVE CONTROL AUTONEUTRAL AND WARNING INDICATOR		
SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE		
INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS		

Design

PAINT: ONE SOLID COLOR

Color

CAB COLOR A: L0762EY MED RED ELITE EY
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
PAINT
STANDARD E COAT/UNDERCOATING

Certification / Compliance

U.S. FMVSS CERTIFICATION, EXCEPT SALES
CABS AND GLIDER KITS

Secondary Factory Options

OBD 2019 MISFIRE MONITORING

Raw Performance Data

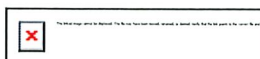
CALCULATED EFFECTIVE BACK OF CAB TO
REAR SUSPENSION C/L (CA) : 176.53 in
CALC'D SPACE AVAILABLE FOR DECKPLATE :
179.45 in

TOTAL VEHICLE SUMMARY

Weight Summary

	Weight Front	Weight Rear	Total Weight
Factory Weight ⁺	7943 lbs	8137 lbs	16080 lbs
Dealer Installed Options	2 lbs	0 lbs	2 lbs
Total Weight ⁺	7945 lbs	8137 lbs	16082 lbs

Dealer Installed Options



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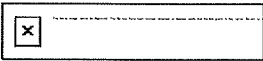


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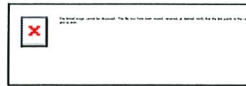
	Weight Front	Weight Rear
WELDON VDR AND DISPLAY INSTALLED AT ISTATE TRUCK CENTER	2	0
Total Dealer Installed Options	2 lbs	0 lbs

(+) Weights shown are estimates only.
If weight is critical, contact Customer Application Engineering.

(***) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.

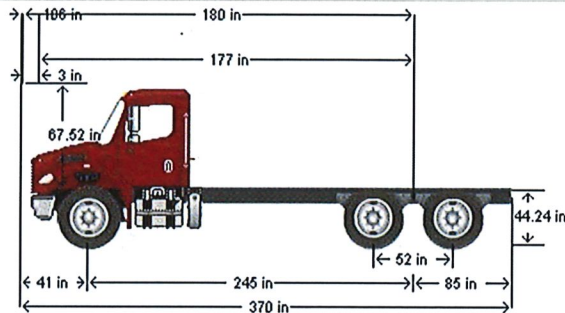


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DIMENSIONS



VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model.....M2106
Wheelbase (545) 6225MM (245 INCH) WHEELBASE
Rear Frame Overhang (552) 2150MM (85 INCH) REAR FRAME OVERHANG
Fifth Wheel (578) NO FIFTH WHEEL
Mounting Location (577)..... NO FIFTH WHEEL LOCATION
Maximum Forward Position (in).....0
Maximum Rearward Position (in)0
Amount of Slide Travel (in).....0
Slide Increment (in).....0
Desired Slide Position (in).....0.0
Cab Size (829).....106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Sleeper (682) NO SLEEPER BOX/SLEEPER CAB
Exhaust System (016)..... RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY
WITH RH HORIZONTAL TAILPIPE EXITING FORWARD OF REAR TIRES

TABLE SUMMARY - DIMENSIONS



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Dimensions	Inches
Bumper to Back of Cab (BBC)	106.3
Bumper to Centerline of Front Axle (BA)	40.7
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	179.5
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	176.5
Back of Cab Protrusions (Exhaust/Intake) (CP)	0.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	264.1
Cab Height (CH)	67.5
Wheelbase (WB)	245.1
Frame Overhang (OH)	84.6
Overall Length (OAL)	370.4
Rear Axle Spacing	52.0
Unladen Frame Height at Centerline of Rear Axle	44.2

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

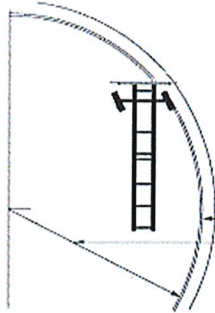


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TURNING RADIUS



Turning radius graphic and data provided strictly for comparisons between model configurations. Weather, road surfaces, and tire treads affect the results. It is strongly suggested that actual vehicles be measured before constructing any roads/driveways using this information. For specific figures regarding your configuration, please contact your CAE representative.

	Dimensions	Tolerance
Wall to Wall Diameter (ft)	74.0	+/- 3.0
Curb to Curb Diameter (ft)	72.5	+/- 3.0
Turning Radius (ft)	35.7	+/- 1.5

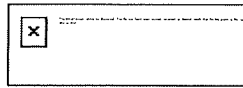
VEHICLE SPECIFICATIONS SUMMARY - TURNING RADIUS

Model.....M2106
Cab Size (829).....106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Wheelbase (545).....6225MM (245 INCH) WHEELBASE
Front Tires (093).....MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES
Width (in).....12.5
Front Axle (400).....DETROIT DA-F-16.0-5 16,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE
Kingpin Intersection (in).....71
Bumper (556).....THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS
Width (in).....93.5
Bumper Miter to Front Axle (in).....21.458
Primary Steering Location (003).....LH PRIMARY STEERING LOCATION
Steering Gear (536).....TRW TAS-85 POWER STEERING
Dual Steering Gear.....NONE
Ram.....NONE
Rear Axle (420).....RT-46-160 46,000# R-SERIES TANDEM REAR AXLE
Axle Spacing (624).....52 INCH AXLE SPACING

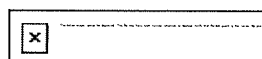
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QUOTATION

Heiman Fire Equipment

City of Howard Lake
Kevin Bobrowske
Howard Lake, Minnesota 55349
kbobrowske2244@gmail.com

Exp. Date: 09/16/2020
Quote No: 10448-0005
10/08/2020

Page 1

PART NO	S	DESCRIPTION	QTY	PG
00-00-1300	S	Fire Department Name	1	1
00-00-1500	S	MAXIMUM OVERALL HEIGHT NTE 11' 6"	1	1
00-00-1510	S	S.O.R. / MAXIMUM OVERALL LENGTH NTE 34'	1	1
00-00-1519		Overall Width Restriction, NONE	1	1
00-00-1529		Wheelbase Restriction, NONE	1	1
00-00-1539		Angle of Approach, NFPA Minimum, 8 Degrees	1	1
00-00-1549		Angle of Departure, NFPA Minimum, 8 Degrees	1	1
00-00-1610		NFPA Pumper Equipment Allowance 2500#	1	2
00-00-3220		Contract Change Notice	1	2
00-12-1100		Financial Stability Response	1	3
01-06-0560		Electronic Stability Control	1	4
01-07-0060		-- Technical Drawings, Representative Drawings (3-View) (Left/Right/Rear)	1	4
01-07-1100		Change Orders	1	5
02-13-5030		Delivery	1	5
02-13-7400		Toll Free Service Number	1	5
01-16-0150		-- Warranty, Apparatus, Body Warranty, 1 Year	1	6
01-19-0250		-- Warranty, Bdy, Alum, 5 Years	1	7
01-19-2800		-- Warranty, Subframe, Lifetime Galv	1	8
01-20-0250		-- Warranty, Paint, PPG, 5 Years	1	8
01-21-0150		-- Warranty, Lettering and Striping, 1 Year	1	9
01-17-0750	S	-- S.O.R. / Pump Warranty, Waterous, 7 Years	1	9
01-17-1050		-- Plmbg Warranty, Stnls Stl, 10 Years	1	11
01-18-0900		-- Warranty, Water Tank, G3	1	11
01-33-3100		-- Mnls, Bdy Complete, 1 Set Printed With Digital Copy	1	11
01-33-3400		-- Mnls, Bdy Complete, Electronic Internet Service	1	11
02-90-1100		Chassis, Freightliner M2, 2-Dr	1	13
50-03-1000		Elecal, Base, Standard, W/O Load Mgmt	1	13
50-05-1510		-- Electrical Jct Box, Weather Resistant	1	17
50-12-1120		Swch Panel/Elecal Console, Btwn Cab Seats, Blk LineX Ctd	1	17
50-15-1100		Batteries, With Supl'd Chs	1	17
50-15-3100		Battery Swch, Mstr Disconnect, Chs Sppld	1	17
50-15-5600		Battery Chrg, KUSS, Autocharge 1000 091-215-12	1	17
50-20-1600		Shore Power Inlet, KUSS Super Auto-Eject 20A, With Digital Display 091-55-194	1	18
50-20-1120		-- Shore Power Inlet, Left Front Cab Dr	1	18
50-42-2000		Air Horns, (2) Hood Mntd, 24.5" Stuttertone, Chrome	1	18
50-43-2000		-- Air Horn Cntrl, Driver, Horn Ring, Air/Elec	1	18
51-00-1700		-- 12V Power/Ground, 30A, Radio Lctn	1	18
51-00-4000		-- Switched Power, Thru Master	1	19
51-05-6200		Lt, Engine Cmpt, 12 Volt LED, w/Switch	1	19
51-05-9000		-- Switch on Light Head	1	19
51-05-6400		Lt, Pump Cmpt, 12 Volt LED With Switch	1	19
51-05-9000		-- Switch on Light Head	1	19
52-01-1200		Back Up Alarm	1	19
52-02-4000		Back Up Camera, Zone Defense, Rear Camera System	1	19
52-15-1200		Radio Antenna Base, Supply and Install, Ea	1	19
53-01-1200		Marker Lts, LED, DOT Requirements	1	19

PART NO	S	DESCRIPTION	QTY	PG
53-02-1200		License Plate Brkt, Stainless w/ LED Lt, Rr,	1	20
53-03-0060		Whelen Rr DOT LED Ltng Pkg (4x6) 600's	1	
53-03-2600		-- Tail/Brake Lts, Whelen, 600's 4"x6" (Pair)	1	20
53-04-2600		-- Turn Signals, Whelen, 600's LED w/ Arrow, 4"x6" (Pair)	1	20
53-06-3500		-- Backup Lts, Whelen, 600's LED, 4"x6" (Pair)	1	20
53-07-1200		-- Tail Lt Bezel, 4 Lts (Pair)	1	20
53-05-1800		Turn Signals, Mid Bdy, LED Marker Lt (Pair)	1	20
54-02-1600		-- Ground Lts, Cab, 2 Door, LED, TecNiq Pair	1	20
54-02-2300		-- Step Lts, Cab, (1) Pair LED Pair	1	21
54-03-1280		-- Ground Lts, Pump Panel, LED, TecNiq Pair	1	21
54-03-1680		-- Ground Lts, Rear Step, LED, TecNiq Pair	1	21
54-04-1999		-- Lt Swtch, Ground Lts w/ Park Brake	1	21
54-10-1300		Step Lt, Fxd /Fldg Step, LED, Ea	2	21
54-10-1450		Step Lt, Rr Tailboard, LED, Ea	2	21
54-11-2100		Lt Swtch, Step/Wlkwy Lts Wired Park Brake Swtch	1	21
54-12-1908	S	S.O.R. / Deck Lts, Front Pre-Connects	1	21
54-12-1410	S	-- S.O.R. / Deck Lts, TruckLite, LED, 1-Fldlt #81380, Black	1	22
54-12-3010		-- Deck Lt Swtch, Wired Park Brake Swtch	1	22
54-15-4610		-- Scene Lt, Fire Research, Spectra MAX, LED SPA260-Q20, Chrm, Surface Mount	3	22
54-15-5500		-- Scene Lt Lctn, Left Side Of Bdy	1	22
54-15-1460		-- Scene\Warm Lt, Mntg Plate, Tread Plate	1	22
54-15-5600		-- Scene Lt Lctn, Right Side Of Bdy	1	22
54-15-1460		-- Scene\Warm Lt, Mntg Plate, Tread Plate	1	22
54-15-5700		-- Scene Lt Lctn, Rr Of Bdy	1	22
54-15-6400		-- Scene Lt Swtch, Left Scene Lts, Cab Switch Panel	1	22
54-15-6500		-- Scene Lt Swtch, Right Scene Lts, Cab Switch Panel	1	23
54-15-6600		-- Scene Lt Swtch, Rr Scene Lts, Cab Switch Panel	1	23
54-15-6700		-- Scene Lt Swtch, Rr Scene Lts, Auto w/ Reverse	1	23
55-11-2100		Dr Open/Hazard Wrn Lt, Flashing LED Whelen OS (OSROOFCR)	1	23
56-01-1360		Siren, Elect, F-S PA-300 w/Priority #690002	1	23
56-02-1600		-- Spkr, F-S Dynamax, ES100C 100 Watt	1	23
56-02-1650		-- Spkr Grille, Stnls Stl, "R"	1	24
56-03-1200		-- Spkr Lctn, Bumper, Rcscd, Left Side	1	24
57-02-2000		-- Lt Bar Whelen JE0NFPA NFPA Justice Series Super LED 62" Long	1	24
57-10-0600		-- Lightbar Cntrl, with Master Warning Switch	1	24
58-71-1820		-- Wrn Lts, Whelen, Upper Rr (2) S-LED Rotary L31 P/N L31*F	1	24
57-20-8100		-- Wrn Lt, Drvr, Whelen, L31 LED Rotator Red Color Lens, Ea	1	24
57-20-8101		-- Wrn Lt, Offcr, Whelen, L31 LED Rotator Red Color Lens, Ea	1	25
58-74-5100		-- Stanchions, Rr Wrn Lt, Cast Alum	1	25
58-46-1720		-- Wrn Lts, Whelen, Upper Side Front (2) #900 S-LED	1	25
54-15-1460		-- Scene\Warm Lt, Mntg Plate, Tread Plate	1	25
57-20-7010		-- Wrn Lt, Drvr, Whelen, 900 Red LED, Color Lens, Ea	1	25
57-20-7011		-- Wrn Lt, Offcr, Whelen, 900 Red LED, Color Lens, Ea	1	25
58-01-2280		-- Flange, Chrome, Wrn Lt, Whln, 900, Ea	2	25
CAB WARNING LTS			1	
58-03-1520		-- Wrn Lts, Whelen, Low Frnt, (2) #600 S-LED	1	25
57-20-4010		-- Wrn Lt, Drvr, Whelen, 600 Red LED, Color Lens, Ea	1	25
57-20-4011		-- Wrn Lt, Offcr, Whelen, 600 Red LED, Color Lens, Ea	1	25
58-01-2240		-- Flange, Chrome, Wrn Lt, Whln, 600, Ea	1	25
58-09-1520		-- Wrn Lts, Whelen, Intrsct (2) #600 S-LED	1	26
57-20-4010		-- Wrn Lt, Drvr, Whelen, 600 Red LED, Color Lens, Ea	1	26
57-20-4011		-- Wrn Lt, Offcr, Whelen, 600 Red LED, Color Lens, Ea	1	26
58-01-2240		-- Flange, Chrome, Wrn Lt, Whln, 600, Ea	2	26
58-26-1520		-- Wrn Lts, Whelen, Low Mid Bdy (2) #600 S-LED	1	26
57-20-4010		-- Wrn Lt, Drvr, Whelen, 600 Red LED, Color Lens, Ea	1	26
57-20-4011		-- Wrn Lt, Offcr, Whelen, 600 Red LED, Color Lens, Ea	1	26
58-01-2240		-- Flange, Chrome, Wrn Lt, Whln, 600, Ea	2	26
58-36-2400		-- Wrn Lts, Whelen, Low Rr Side (2) M2 LED, in Rub Rail	1	26
57-20-1000		-- Wrn Lt, Drvr, Whelen, M2, Red LED, Color Lens, Ea	1	26
57-20-1001		-- Wrn Lt, Offcr, Whelen, M2, Red LED, Color Lens, Ea	1	27

PART NO	S	DESCRIPTION	QTY	PG
58-01-2100		-- Flange, Chrome, Wrn Lt, Whln, M2, Ea	2	27
58-81-1520		-- Wrn Lts, Whelen, Low Rr (2) #600 S-LED	1	27
57-20-4010		-- Wrn Lt, Drvr, Whelen, 600 Red LED, Color Lens, Ea	1	27
57-20-4013		-- Wrn Lt, Offcr, Whelen, 600 Blue LED, Color Lens, Ea	1	27
10-02-1100		-- Label, Data, Fluid Levels	1	27
10-02-1200		-- Label, Data, Height x Length, Weight	1	27
10-02-1300		-- Label, Data, "No Ride" Rr Step	1	28
10-02-2100		-- Label, Indicating Number of Seats	1	28
10-02-2500		-- Label, "Caution: Do Not Wear Helmet While Seated"	1	28
10-03-6000		-- Tow Plates (2), Rr Frame Rail, Under Step	1	28
80-43-2400		-- Painting, Tow Plates, Blk	1	28
10-04-0002		-- Bumper, Existing Comm Bumper	1	28
10-04-2110		-- Bumper Ext, None, With Chassis, Commercial	1	
10-04-3560		-- Bumper, w/Chassis	1	
10-06-1120		-- Whl Trim, S/S Hub/Lug Cvr, Front/Rr, Tndm Axle	1	28
10-06-1650		-- Tire Pressure Indicator, Tndm Axle, Commercial, RWTG1235	1	28
10-07-0100		-- Exhaust, Horizontal Supplied With Chassis	1	
10-07-1500		-- Exhaust Heat Shield, Under Bdy Compts	1	29
10-08-2100		-- Mud Flaps, Rr Whls, Blk, w/ Bdy	1	29
10-10-0400		-- Cab Step Overlay, 2 Dr LH Side	1	29
10-10-0500		-- Cab Step Overlay, 2 Dr RH Side	1	29
10-19-4000		-- Air Inlet, Mnl, Cab Exterior, Left Step	1	29
20-23-2200		-- Pump, Waterous, CXVC20, 1 Stage, Midship	1	29
20-23-2130		-- Pump Flow Rtn, Waterous, CXC20, 1500 GPM	1	30
22-24-1600		-- Intk, Gtd, 6" NST, Mnl, Bttrfly, LH Side, Bhnd Pnl	1	31
21-01-2500		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn	1	31
22-41-5700		-- Cap, 6", Chrome Long Hndl	1	31
22-24-3600		-- Intk, Gtd, 6" NST, Mnl, Bttrfly, RH Side, Bhnd Pnl	1	31
21-01-2500		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn	1	31
22-41-5700		-- Cap, 6", Chrome Long Hndl	1	31
20-26-2200		-- Pump Seal, Mech, Waterous	1	32
20-26-2300		-- Pump Impeller, Waterous, Standard Hubs	1	32
20-26-3200		-- Pump Shift, Waterous, Elec/Pneumatic Operated	1	32
20-29-1200		-- Primer, Trident Air Primer, Automatic	1	32
20-29-1252		-- Primer Control - Main Pump Manual Push Button	1	33
27-10-3400		-- Pressure Gvrnr, FRC, In-Cntrl, w/Bdy, TGA300	1	33
STAINLESS STEEL PUMP PLUMBING *			1	
21-00-0090	S	-- Pump Panel Approval Drawing	1	35
21-00-2000		-- Screens/Anodes, Pump	1	36
21-00-3300		-- Piping, Stnls Stl - 1250 GPM & Up	1	36
21-01-0200		-- Pump Drain, Master, Manifold, Push Pull Type	1	36
21-01-5500		-- Intk Manifold, Stnls Stl	1	36
21-01-6500		-- Dschg Manifold, Stnls Stl	1	37
21-01-7100		-- Painting, Pump & Piping, Silver	1	37
21-01-8100		-- Threads, National Hose (NST)	1	37
22-51-5210		-- Tank-To-Pump, Water Tank, 3" Vlv/4" Piping, Midship, Pmpr/Tnkr	1	37
22-50-0100		-- Single Tank to Pump Control - Pump Operator's Panel	1	37
24-62-1300		-- Vlv Mfgr, AKR, 8000, (3")	1	37
22-55-4012		-- Intk Vlv Cntrl, Pull Rod, 1/4 Turn, AKR - IC	1	37
23-02-1300		-- Tank Fill/Cooling Line, Water Tank, 2"	1	38
24-62-1200		-- Vlv Mfgr, AKR, 8000, (2")	1	38
22-55-4012		-- Intk Vlv Cntrl, Pull Rod, 1/4 Turn, AKR - IC	1	38
20-30-3100		-- Pump Instln, Midship Split-Shaft, By Bdy Bldr	1	38
20-31-3600		Dump-Relief Vlv, Suction Side, TFT A18	1	38
20-31-4100		Pump Cooler, Bypass-To-Tank, 3/8"	1	38
20-31-5100		Heat Exchanger, Engine, Hook-Up Only	1	38
20-31-1000		-- Fire Pump Testing - Pumpers/Tankers	1	
20-31-1100		-- Pump Test, Pumper, UL	1	39
20-31-1500		-- Pump Test, Label	1	39
22-12-1100		Intk, Aux, Gtd, 2-1/2", NST, Left Side	1	39

PART NO	S	DESCRIPTION	QTY	PG
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	1	40
22-41-1100		-- Plug, 2-1/2", Chrome Rocker Lug, w/Chain	1	40
24-62-1250		-- Vlv Mfger, AKR, 8000, (2-1/2")	1	40
22-55-4050		-- Intk Vlv Cntrl, AKR, Mnl Swing Type-Adjacent	1	40
23-06-2200		-- Crosslay Dschgs, (2) 1-1/2", Over Pump Panel, NST 200 ft x1-3/4-in ea w/divider	1	40
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	2	40
24-61-1200		-- Vlv Mfger, AKR, 8000, (2")	2	41
24-53-0020		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge	2	41
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	2	41
23-07-2100	S	-- S.O.R. / Crosslay Dschg, (1) 2-1/2", Over Pump Panel, NST 200 ft of 2-1/2-in e	1	41
21-01-2202		-- Drain/Bleeder, Class 1, Automatic - Spec Only	1	41
24-61-1250		-- Vlv Mfger, AKR, 8000, (2-1/2")	1	41
24-53-0020		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge	1	41
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	42
23-08-3300	S	-- S.O.R. / Crosslay Cvr, Alum T/P, Sngl, W/Vinyl End Flaps (Non NFPA Walking Surf	1	42
29-20-5602		-- Vinyl Color, BLACK	1	42
23-08-4120		-- Crosslay Trim, SS, Both Sides	1	42
23-08-5020		-- Crosslay Dschgs, Over Pump Panel, Low Height	1	42
23-09-4100		Dschg, 2-1/2", Left Side, Pump Panel, NST	1	42
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	1	42
24-02-1200		-- Elbow, 2-1/2"F x 2-1/2" NST M, Chrome	1	43
24-03-1400		-- Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain	1	43
24-61-1250		-- Vlv Mfger, AKR, 8000, (2-1/2")	1	43
24-53-0800		-- Dschg Vlv Cntrl, AKR, Mnl Swing Type-Adjacent, Lckg	1	43
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	43
23-10-4100		Dschg, 2-1/2", Right Side, Pump Panel, NST	1	43
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	1	43
24-02-1200		-- Elbow, 2-1/2"F x 2-1/2" NST M, Chrome	1	44
24-03-1400		-- Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain	1	44
24-61-1250		-- Vlv Mfger, AKR, 8000, (2-1/2")	1	44
24-53-0020		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge	1	44
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	44
23-10-5200		Dschg, 3" x 4"NST, Right Side, Pump Panel, NST	1	44
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	1	44
24-02-2600		-- Elbow, LW Alum, 5" Storz x 4"F	1	44
24-03-2200		-- Cap, LW Alum, 5" Storz, w/Cable	1	45
24-61-1300		-- Vlv Mfger, AKR, 8000, (3")	1	45
24-53-0300		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR Slow Close - IC w/Gauge	1	45
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	45
23-13-3100		Dschg, 2-1/2", Left Rr, NST	1	45
21-01-2502		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn - Spec Only	1	45
24-02-1200		-- Elbow, 2-1/2"F x 2-1/2" NST M, Chrome	1	45
24-03-1400		-- Cap, 2-1/2", NST Chrome, Rocker Lug, w/Chain	1	45
24-61-1250		-- Vlv Mfger, AKR, 8000, (2-1/2")	1	45
24-53-0020		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge	1	46
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	46
24-30-3700		-- Hose Reel, HAN, LwrRr Cmpt, Elec, Stl Pntd	1	46
24-31-2100		-- Hose Reel, Rwnd Cntrl, Weatherproof Push Button	1	46
24-32-1200		-- Dschg, Hose Reel, 1"	1	46
21-01-2500		-- Drain/Bleeder, IC Lift-Up, Mnl 1/4 Turn	1	46
24-32-1700		-- Dschg, Hose Reel, Plmbd to Normal Pressure	1	46
24-61-1100		-- Vlv Mfger, AKR, 8000, (1")	1	47
24-53-0020		-- Dschg Vlv Cntrl, Pull Rod, 1/4 Turn, SM, AKR - IC w/Gauge	1	47
27-02-1500		-- Gauge, Dschg, IC, 2-1/2" 400#, WF	1	47
24-33-1500		-- Hose, Water, 800#, 1-in x 50-ft	2	47
24-33-9300		-- Roller, Hose Reel, Rr	1	47
30-43-1600		-- Painting, Hose Reel, Silver Grey	1	47
26-02-2200		Pump Enc, Side Mt, Extrd Alum, 40-49"W, Crslys	1	47
26-10-2100		Pump Enc Cmpt, SM, Dnnge Over Pump, Open	1	48
26-30-1100		Rng Brd, LH Pump Panel, Alum T/P, SM	1	48

PART NO	S	DESCRIPTION	QTY	PG
26-30-5000		-- Hosewell, Rning Brd, Pump Panel, LH	1	49
26-30-6200		-- Hosewell, Rning Brd, Velcro Straps,	1	49
26-30-1150		Rng Brd, RH Pump Panel, Alum T/P, SM	1	49
26-30-5200		-- Hosewell, Rning Brd, Pump Panel, RH	1	49
26-30-6200		-- Hosewell, Rning Brd, Velcro Straps,	1	50
26-35-3200		Pump Panel, Stnls Stl, LH/RH, SM	1	50
26-35-1100		-- Pump Panel, Bltd, LH	1	50
26-35-1400		-- Pump Panel, Hngd, RH	1	50
26-36-5100		Trim Panels, Stnls Stl, Intks and Dschgs	1	50
26-50-1200		Heater, Pump Enc, 30,000BTU, w/Swtch on Pmp Oprtr's Pnl	1	50
26-50-3100		Heat Pan, Pump Enc, Midship, Slide Out Panel, Glvnzd Stl	1	51
26-55-1100		Labels, Test Data and Safety Placards	1	51
26-55-2400		Labels, Innovative Controls Color Coded	1	51
26-56-1125		Pump Panel LED Lts, (3) Tecniq E10-W0001-1, Midship LH w/ Sw on Pmp Oprtr's Pnl	1	51
26-56-1225		Pump Panel LED Lts (2), Midship RH, Tecniq E10-W0001-1	1	52
26-56-2000		Pump Panel Lt (1), Actuated w/Pump Engagement	1	52
27-01-3300		-- Mstr Gauges, FRC, In-Control, Digital, Pres/Vacuum	1	52
27-01-4100		Gauge, Test Taps	1	52
27-35-2000		Water Tank Gauge, Class 1, Intelli-Tank, Pump Panel	1	52
27-35-2100		-- Water Tank Gauge, Class 1, Intelli-Tank, Rr Bdy	1	53
47-01-0500		G3 Water Tank, Base Specs	1	53
47-01-1080		-- Water Tank, 3000 Gallon	1	54
47-01-1900		-- Water Tank, "T" Tank	1	54
47-01-5100		-- Forward Side Quick Dump, Provisions, Left	1	54
47-01-5200		-- Forward Side Quick Dump, Provisions, Right	1	54
25-50-3000		Direct Tank Fill, 4" Btr/Fly Vlv, Rr, 4"NSTM Adapter and Cap	1	55
24-01-4600		-- Adptr, LW Alum, 5" Storz x 4"F	1	55
24-03-2200		-- Cap, LW Alum, 5" Storz, w/Cable	1	55
25-62-1260	S	-- Quick Dump, Rr 10", Extnl Mt w/Swivel Dump	1	55
25-62-2100		-- Quick Dump, Rr 10", Mnl Open/Close Cntrls	1	55
25-62-2550		-- Quick Dump, Rr 10", Pntd Stl	1	55
25-62-4300		-- Quick Dump Chute, Rr, Swivel Dump, Rosenbauer	1	55
25-62-4310		-- Handle, Cast, Lower Chute, Swivel Dump	1	56
29-10-2000		Hosebed, Grating, Extrd Alum, >180" Long	1	56
29-10-5100		-- Hosebed, Strge Cpcty, 55 Cubic Feet, Minimum	1	56
29-10-8100		Hosebed, Divider, 1/4" Alum	2	56
29-20-5000		Hosebed Cvr, Vinyl, >180" L, <74" W, Velcro	1	56
29-20-5602		-- Vinyl Color, BLACK	1	57
30-00-0399		Raw Material Surcharge - Tandem Axle	1	
30-01-1910		Bdy Const - Rosenbauer FX - 3/16" Alum - TA Pmpr/Tnkr	1	57
30-02-2100		-- Alum Treadplate Compt Floors	1	58
30-10-1100		-- Sub Frame, Hot-Dip Galv	1	58
31-01-1300		-- Bdy, Frmd Alum, Pmpr/Tnkr, Up to 220"	1	59
44-06-3100		-- Whl Well Panel, Alum Pntd, Tndm Axle - Alum	1	59
44-06-4100		-- Fenderette, Polished Aluminum	1	59
31-01-2275		102" OAW, 26" Lwr Dpth/13-26" Half Dpth, TA LL/HR	1	
29-00-1320		-- Hosebed, Pmpr, >180" L, 74" Wide	1	59
32-03-0030		-- Cmpt Height, 30" High Left	1	60
32-03-1066		-- Cmpt Height, 66" High Right	1	60
32-04-1270		Roll Up Drs, LL/HR	1	
30-02-1150		-- Roll-Up Drs - ROM Mfg	6	60
32-05-1030		-- Ahd Rr Whls - Low Comp't - Roll Up Dr - Natural Finish	1	61
44-40-1100		-- Vents, Compts, Louvers, Includes Filters (Ea)	1	61
45-01-1050		-- Shelving Tracks, (2) Unistrut, Alum	1	61
45-05-1100		-- Slide Tray, 250#, Alum 1/8", Full Extension	1	61
55-01-1150		-- Cmpt Lt, Wall, ROM, V3 LED Track Lt, (1) Ea Cmpt	1	61
55-06-1400		-- Cmpt Lt, Dr Swtch, Magnetic, Ea	1	61
32-05-1630		-- Bhnd Rr Whls - Low Comp't - Roll Up Dr - Natural Finish	1	61
44-40-1100		-- Vents, Compts, Louvers, Includes Filters (Ea)	1	62
45-01-1050		-- Shelving Tracks, (2) Unistrut, Alum	1	62

PART NO	S	DESCRIPTION	QTY	PG
55-01-1150		-- Cmpt Lt, Wall, ROM, V3 LED Track Lt, (1) Ea Cmpt	1	62
55-06-1400		-- Cmpt Lt, Dr Swtch, Magnetic, Ea	1	62
32-06-1120		-- Ahd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish	1	62
44-40-1100		-- Vents, Compts, Louvers, Includes Filters (Ea)	1	62
45-01-1050		-- Shelving Tracks, (2) Unistrut, Alum	1	62
45-02-1200		-- Shelf, Adjust, Alum 1/8"	2	63
45-05-1100		-- Slide Tray, 250#, Alum 1/8", Full Extension	1	63
55-01-1250		-- Cmpt Lt, Wall, ROM, V3 LED Track Lt, (2) Ea Cmpt	1	63
55-06-1100		-- Cmpt Lt, Dr Swtch, Auto, Ea	1	63
32-06-1420		-- Upr Hgh Sde - Two (2) Comp'ts - Roll Up Door - Natural Finish	1	63
44-40-1100		-- Vents, Compts, Louvers, Includes Filters (Ea)	2	63
45-01-1050	S	-- Shelving Tracks, (2) Unistrut, Alum	2	64
90-21-1100		-- SCBA Mntg Brkt, Zico, 30 Minute, Non Riding HZ-KD-UH-6-SF	4	64
55-01-1250		-- Cmpt Lt, Wall, ROM, V3 LED Track Lt, (2) Ea Cmpt	2	64
55-06-1100		-- Cmpt Lt, Dr Swtch, Auto, Ea	2	64
32-06-1720		-- Bhnd Rr Whls - Full Ht Comp't - Roll Up Door - Natural Finish	1	64
44-40-1100		-- Vents, Compts, Louvers, Includes Filters (Ea)	1	64
45-01-1050		-- Shelving Tracks, (2) Unistrut, Alum	1	64
45-16-1100		-- Tool Board, Roll Out, 500#, 3/16" Alum (1/4 Depth)	1	65
55-01-1250		-- Cmpt Lt, Wall, ROM, V3 LED Track Lt, (2) Ea Cmpt	1	65
55-06-1100		-- Cmpt Lt, Dr Swtch, Auto, Ea	1	65
33-60-1100		Rr Bdy, Flat Back	1	65
32-08-0500	S	-- S.O.R. / Rr Center Low Cmpt - Btwn Frame Rails, Booster Reel	1	65
32-08-0910		-- Rr Center Cmpt Door - Alum Trdplte	1	65
55-02-1200		-- Cmpt Lt, Ceiling, LED, (1) Ea Cmpt	1	66
55-06-1100		-- Cmpt Lt, Dr Swtch, Auto, Ea	1	66
33-61-1700		-- Rr Step, Pmpr-Tnkr Bdy, Bolt-On, 20"	1	66
90-02-3500		Ladder Strge, Vrtcl Slide In, Right Rr Bdy	1	66
90-02-2920		-- Cmpt Door, Smooth, With Chevron	1	66
90-02-5310		Ladder Mtg, Fldg Attic, Internal	1	66
90-03-0225		Ladders, Ground, Provd'd By Bdy Bldr, SD	1	66
90-16-5400		Pike Pole Mtg, In Ladder Tunnel, Ea	2	66
90-16-6115		Pike Pole Provd'd By, Bdy Bldr SD	1	67
90-25-7750	S	S.O.R. / Suction Hose Cmpt, Abv Tank Holder, Left Side Pntd Smooth (Ea)	1	67
90-02-2900		-- Cmpt Door, Alum Treadplate	1	67
90-25-7500	S	Suction Hose Cmpt, Under "T" Tank, Left Side (Ea)	1	67
90-02-2900		-- Cmpt Door, Alum Treadplate	1	67
90-25-9115		Suction Hose Provd'd By, Bdy Bldr, SD	1	67
90-30-3800		Fldg Tank Mtg, Zico 12V Elec/Hyd, Left Side, PTS-HA	1	67
90-30-3992		-- Fldg Tank Cover, Zico, Painted	1	68
90-30-5115		Fldg Tank Provd'd By, Bdy Bldr sd	1	68
33-66-2160		-- Steps, Fldg, Frnt, Right Hand (4), Integral LED Lts	1	68
44-01-1450		-- Bdy Trim, Frnt Cmpt, Ht of Side Cmpts, Alum T/P	1	68
44-01-6000		-- Catwalks Top of Side Cmpts, Alum Treadplate	1	68
44-01-4000		-- Bdy Trim, Entire Rr Bdy, Smooth for Chevron Stripe	1	68
33-62-4160		-- Steps, Fldg, Rear, Left Hand (4), Integral LED Lts	1	69
33-62-4260		-- Steps, Fldg, Rear, Right Hand (4), Integral LED Lts	1	69
33-62-5400		-- Step, Bltd, Treadplate, Rr Intermediate, 68"	1	69
33-70-1200		-- Handrails, Rr Step, Vert, 30", Pair	1	69
33-70-2200		-- Handrails, Pmpr, Below Hosebed, Horz, 60"	1	70
33-70-4100	S	-- S.O.R. / Handrail, Pmpr, Side Pump Panel, Vert, 12"	1	70
44-02-1100		-- Rub Rails, Lwr Bdy, Extrd Alum	1	70
44-02-2000		-- Rub Rails, Spacers, Nylon	1	70
44-11-5200		Whl Well Prvsns, Btwn Tndms Left Side	1	70
44-10-2100		-- Whl Well Cmpt, Dual SCBA Tube, Alum Dr	1	70
44-10-6000		-- Whl Well Cmpt, SCBA Cmpt Straps	2	71
44-11-5600		Whl Well Prvsns, Btwn Tndms Right Side	1	71
44-10-2100		-- Whl Well Cmpt, Dual SCBA Tube, Alum Dr	1	71
44-10-6000		-- Whl Well Cmpt, SCBA Cmpt Straps	2	71
60-26-1000		Rcptcls Chassis Cab (Shoreline Wired)	1	71

PART NO	S	DESCRIPTION	QTY	PG
60-25-1500		-- Rcptcl, 120V, 20 Amp, 6-Plug Strip Rcptcl	1	71
60-30-5400		-- Rcptcl Lctn, Inside Cab, Front Area, Ea	1	71
30-26-1100		Rcptcls (Shoreline Wired)	1	72
60-25-1700		-- Rcptcl, 120V, 15 Amp, 60" Power Strip	2	72
60-30-2400		-- Rcptcl Lctn, Right Side, Ahd Rr Whls Cmpt, Ea	1	72
60-30-2450		-- Rcptcl Lctn, Right Side, Over Whl Cmpt, Ea	1	72
80-05-1300		Bdy Paint, Tndm Axle, Pmpr/Tnkr - Sngl Color	1	72
80-06-1100		-- Apparatus Color	1	73
80-33-1200		Compt Finish, Swirl, Up to 8 Cmpts	1	73
80-40-1100		Whls, Alum, By the Chassis Manufacturer	1	
80-42-1500		Bdy Paint, Touch Up, 2 oz. Bttl, One Color	1	73
80-50-1200		Lettering Supl'd by Purchaser	1	73
80-70-1200		Stripe, Reflective, Supl'd by Purchaser	1	73
80-72-1100		Stripe, Reflective 3M, Chevron Pattern Entire Rr Red/Yellow	1	73
80-79-1000		NFPA Standing / Walking Surfaces Yellow Safety Tape (NFPA 15.7.1.6)	1	73
90-01-5900		Whl Chocks Pair Zico #SAC-44 Fldg w/ Mts	1	74
90-03-3300		-- Ladder, Roof, Duo-Safety, 14' Alum 775-A	1	74
90-06-4600		-- Ladder, Ext, Duo-Safety, 24' Alum, 2 Sect 900-A	1	74
90-08-2600		-- Ladder, Attic, Duo-Safety, 10' Alum, Fold 585-A	1	74
90-16-2600		-- Pike Pole, 8' Fbgls, Round Hndl	1	74
90-16-2800		-- Pike Pole, 10' Fbgls, Round Hndl	1	74
90-25-3100		Suction Hose, Flex, PVC, 6"x10'	2	75
90-25-6100		-- Suction Hose Cplgs, Alum, LH FM x RLM	2	75
90-30-1700		Fldg Water Tank, 3000 Gal, Alum Frame, 22 Oz Vinyl	1	75

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One (1)
00-00-1300

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SOURCEWELL PROPOSAL SPECIFICATIONS FOR A ROSENBAUER COMMERCIAL PUMPER TANKER

One (1)
00-00-1500

MAX HEIGHT

The maximum height of the apparatus shall not exceed 11' 6".

One (1)
00-00-1510

MAX LENGTH

The maximum length of the apparatus shall not exceed 34'.

One (1)
00-00-1519

OVERALL WIDTH

An overall width restriction has not been specified for this apparatus.

One (1)
00-00-1529

WHEELBASE

A wheelbase restriction has not been specified for this apparatus.

One (1)
00-00-1539

ANGLE OF APPROACH

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1901.

One (1)
00-00-1549

ANGLE OF DEPARTURE

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by

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the current edition of NFPA 1901.

One (1)
00-00-1610

NFPA PUMPER EQUIPMENT ALLOWANCE

In compliance with NFPA #1901 standards, the apparatus shall be engineered to provide an allow of 2500 pounds of fire department provided loose equipment.

One (1)
00-00-3220

CONTRACT CHANGE NOTICE

The quoted delivery time is based upon our receipt of the specified materials required to produce the apparatus in a timely manner. "Delivery" means the date company is prepared to make physical possession of vehicle available to customer.

The Company shall not be responsible nor deemed to be in default on account of delays in performance due to causes which are beyond the Company's control which make the Company's performance impracticable, including but not limited to civil wars, insurrections, strikes, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of government, delays in transportation, inability to obtain necessary labor supplies or manufacturing facilities, allocation regulations or orders affecting materials, equipment, facilities or completed products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, epidemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their contracts or labor troubles causing cessation, slowdown, or interruption of work.

After execution and acceptance of this Purchase Process, the Buyer may request that the Company incorporate a change to the Products or the Specifications for the Products by delivering a Change Order to the Company; provided, however, that any such Change Order must be in writing and include a description of the proposed change sufficient to permit the Company to evaluate the feasibility of such Change Order. Within seven (7) working days of receipt of a Change Order, the Company will inform the Buyer in writing of the feasibility of the Change Order, the earliest possible implementation date for the Change Order, of any increase or decrease in the Purchase Price resulting from such Change Order, and of any effect on production scheduling or delivery resulting from such Change Order. The Company shall not be liable to the Buyer for any delay in performance or delivery arising from any such Change Order. Purchase Price may be modified only by mutual written agreement of the Parties because of changes to the Apparatus required or requested by the Buyer during the construction process pursuant to Appendix C, Change Order Policy. Any changes in the Purchase Price resulting from changes to the Apparatus required or requested by the Buyer during the construction process shall be stated in the Change Order signed by both parties. Additional Changes: If various state or federal regulatory agencies (e.g. NFPA, DOT, EPA) require changes to the specification and/or the

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product that result in a cost increase to comply therewith this cost will be added to the Purchase Price to be paid by the customer.

One (1)
00-12-1100

FINANCIAL STABILITY SPECIFICATIONS

With high-profile instances of fire apparatus manufacturers encountering financial difficulties, it is imperative that fire departments be diligent in evaluating the financial position of the companies they solicit to build on their emergency response vehicles. A contract entered into with a company on shaky ground is a dangerous prospect, since conducting business with a manufacturer in such condition could open the department to monumental problems.

Take, for instance, the growing theme of manufacturers *requiring* as opposed to *offering* pre-payment and progressive payment options with a corresponding discount off the price of a vehicle. Such offers are made with an ulterior motive in mind, as it can be generally inferred that manufacturers requiring pre-payments and progressive payments do so because they need your cash *today* to fund production of other vehicles already in the backlog.

Should problems arise, as has been the case in situations too numerous to mention, your department risks losing any down payments already made or even the entire cost of a piece of equipment should certain pre-pay discount situations go awry.

While pre-payment discounts may be enticing, it is important to know just how stable the manufacturer seeking your funds is before you make that commitment. If you enter into one of these agreements and the manufacturer hits a rough patch, it is you that will be hurting, because your funds may not be recoverable. However, if you enter into a contract with a financially sound manufacturer, you will reap all of the benefits of a well-built truck at a lower cost. You may equally, by taking advantage of the time-value of money, be able to afford more truck than initially thought, because funds saved by leveraging pre-payment options could allow you get some added features that you might not necessarily have been able to afford.

With this in mind, it must be noted that Rosenbauer is a company with rock-solid financial stability. This is a statement not made lightly, as we can prove it to you. We can provide language that you can insert into your bid specifications that stipulates that in order for bids to be accepted by a fire department, the company bidding must meet several fiscal criteria.

The first criteria call for the successful bidder to meet a debt-to-equity ratio not exceeding a 2.0 rating. Rosenbauer presently stands at a 1.51 rating, which is well-below the accepted rating. This low number results from Rosenbauer owning more assets with a marginal debt service. This means we are not using lenders to fund our operations, nor our growth.

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The second requirement is that the debt coverage ratio of the successful body builder exceeds a 100 rating. The higher the number, the better able a company is to meet its payment obligations with banks and creditors. Rosenbauer's number is at 279.6, which is nearly three times the required amount. The higher the debt coverage ratio, the easily and more fluidly a company is positioned to pay its monthly obligations and operating costs.

The third criteria require that the equity ratio of the successful bidder must exceed .30 rating. A higher equity ratio indicates that the body builder has increased flexibility to meet its financial obligations which translates into greater financial stability. Rosenbauer currently has an equity ratio of .387 which is well above the accepted rating and an excellent indicator of financial strength.

When exploring and evaluating various manufacturers to consider for building your apparatus, there is little doubt you will find one that stands on as firmly a financial ground as Rosenbauer. While others are experiencing stressful issues that raise doubts as to the company's long-term viability, Rosenbauer continues to demonstrate a strengthening of its financial position in the apparatus manufacturing industry. Because Rosenbauer meets and exceeds all the above-stated financial bid requirements, we are best positioned to ensure customers of a strong relationship with the company, which cannot be claimed by most of our competitors in this volatile market.

The Rosenbauer America Dun and Bradstreet number is 02-447-3584. To acquire a Dun and Bradstreet report, telephone them at 1-800-234-3867 (in Canada 800-463-6362) or visit their web site address at www.dnb.com. Dun and Bradstreet is nationally-recognized, independent financial analysis company.

One (1)
01-06-0560

ELECTRONIC STABILITY CONTROL

Electronic stability control shall be supplied on the chassis.

One (1)
01-07-0060

ENGINEERING BLUEPRINTS

ROSENBAUER has submitted "proposal" blueprints which are "representative" of the vehicle being proposed and these have been generated on computer-aided-design (CAD) equipment.

The blueprints are provided as follows:

Sheet No. 1:

Left side exterior view
Right side exterior view
Rear exterior view

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ROSENBAUER shall be provide construction drawings for approval prior to actual construction of the vehicle.

The design of the equipment is in accordance with the best engineering practices. The equipment design and accessory installation shall permit accessibility for use, maintenance and service. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks or other elements, which might cause injury to personnel or equipment.

All oil, hydraulic, and air tubing lines and electrical wiring shall be located in protective positions properly attached to the frame or body structure and shall have protective loom or grommets at each point where they pass through structural members, except where a through-frame connector is necessary.

Parts and components will be located or positioned for rapid and simple inspection and recognition of excessive wear or potential failure. Whenever functional layout of operating components determines that physical or visual interference between items cannot be avoided, the item predicted to require the most maintenance shall be located for best accessibility.

One (1)
01-07-1100

CHANGE ORDERS

To ensure the proper engineering and construction of the purchaser's custom fire apparatus in a timely manner, the contractor shall consider the order final and complete after any changes made during the pre-construction conference are mutually approved. Change orders requested after the pre-construction conference are discouraged. It shall be understood and agreed that any changes, if approved, after the order has been released to Engineering, shall constitute a valid cause for production delay and without penalty to the contractor.

One (1)
02-13-5030

DELIVERY

The apparatus shall be delivered complete and ready for operation. The apparatus, to insure proper break-in of all components, shall be delivered under its own power - rail or truck freight is not acceptable.

One (1)
02-13-7400

TOLL FREE SERVICE NUMBER

Due to the nature of emergency fire and rescue services being subject to respond at any time of the day or night, the municipality requires that this also applies to the selling Dealer and the manufacturer.

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On a typical day to day basis the request for service is expected to be requested from the selling Dealer. However, if the Dealer's service center is not readily available the municipality needs assurance that the OEM (Original Equipment Manufacturer) can be reached for assistance.

With that said, each bidder shall supply a toll-free telephone number that provides OEM emergency service assistance. This number, when called, shall be directed to a call center, then to an OEM service technician, 24 hours a day, 365 days a year.

There shall be a minimum of ten (10) OEM service technicians at any time in the queue to answer an incoming emergency service call. One of which shall be the OEM's National Service Manager.

In the interest of providing the minimum level of acceptable service for the new apparatus this shall be considered a requirement of the successful bidder/proposal.

One (1)
01-16-0150

BODY WARRANTY

We warrant each new motorized fire apparatus manufactured by ROSENBAUER AMERICA, LLC for a period of ONE YEAR from the date of delivery, except for chassis and other components noted herein.

Under this warranty we agree to furnish any parts to replace those that have failed due to defective material or workmanship where there is no indication of abuse, neglect, unusual or other than normal service providing that such parts are, at the option of ROSENBAUER AMERICA, LLC, made available for our inspection at our request, returned to our factory or other location designated by us with transportation prepaid within thirty days after the date of failure or within one year from the date of delivery of the apparatus to the original purchaser, whichever occurs first, and inspection indicates the failure was attributed to defective material or workmanship.

The warranty on the chassis and chassis supplied components, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty will not apply to any fire apparatus that has been repaired or altered outside our factory in any way, which in our opinion might affect its stability or reliability.

This warranty shall not apply to those items that are usually considered normal maintenance and upkeep services: including, but not limited to, normal lubrication or proper adjustment of minor auxiliary pumps or reels.

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This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability in connection with the sales of our apparatus unless made in writing by ROSENBAUER AMERICA, LLC.

One (1)
01-19-0250

ALUMINUM BODY WARRANTY - FIVE YEAR

Rosenbauer America, LLC warrants to the original purchaser only, that the all aluminum body, fabricated by Rosenbauer America, LLC, under normal use and with reasonable maintenance, be structurally sound and will remain free from corrosion perforation for a period of FIVE (5) years.

This warranty does not apply to the following items that are covered by a separate warranty: paint finish, hardware, moldings, and other accessories attached to this body. In addition, this warranty does not apply to any part or accessory manufactured by others and attached to this body.

ROSENBAUER AMERICA, LLC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE ALUMINUM BODY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND HEREBY DISCLAIMED.

Rosenbauer America, LLC will replace without charge, repair or make a fair allowance for any defect in material or workmanship demonstrated to its satisfaction to have existed at the time of delivery or not due to misuse, negligence, or accident. If Rosenbauer America, LLC elects to repair this body, the extent of such repair shall be determined solely by Rosenbauer America, LLC, and shall be performed solely at the Rosenbauer America, LLC factory, or at an approved facility. The expense of any transportation to or from such repair facility shall be borne by the purchaser and is not an item covered under this warranty.

Rosenbauer America, LLC will not be liable for damages and under no circumstances will its liability exceed the price for a defective body. The remedies set forth herein are exclusive and in substitution for all other remedies to which the purchaser would otherwise be entitled.

Rosenbauer America, LLC will be given a reasonable opportunity to investigate all claims. The purchaser must commence any action arising out of, based upon or relating to agreement or the breach hereof, within twelve months from the date the cause of the action occurred.

Note: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.

One (1)
01-19-2800

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GALVANIZED SUBFRAME WARRANTY

Subject to the provisions, limitations and conditions set forth in this warranty, Rosenbauer America, LLC (hereby referred to as "seller"), hereby warrants to each original purchaser only that each new hot dip galvanized body subframe (exclusive of paint finish and hardware) is structurally sound and free of all structural defects of both material and workmanship and further warrants that it will maintain such structural integrity for the duration of ownership by the original purchaser. This warranty terminates upon transfer of possession or ownership by original purchaser.

This warranty is conditioned upon normal use and reasonable maintenance of such subframe; prompt written notice of all defects to seller or one of the seller's then authorized dealers in the area; no repair or additions there to except by seller or authorized by it; said defect not resulting from misuse, negligence, accident, remount, overloading beyond applicable weight rating by customer or third parties. If any such conditions are not complied with, this warranty shall become void and unenforceable.

Should repairs become necessary under the terms or the warranty, the extent of that repair shall be determined solely by the seller and shall be performed solely at Rosenbauer America, LLC or a repair facility designated by the seller. The expense of any transportation to or from such repair facility shall be that of the purchaser and is not an item covered by this warranty.

Seller reserves the unrestricted right at any time from time to time to make changes in the design of and/or improvements on its products without thereby imposing any obligation on itself to make corresponding changes or improvements in or on its products theretofore manufactured.

EXCLUSIONS AND LIMITATIONS: THIS MANUFACTURER'S WARRANTY IS PROVIDED IN PLACE OF ANY AND ALL OTHER REPRESENTATIONS OR IMPLIED WARRANTIES. NO PERSON IS AUTHORIZED TO MAKE ANY REPRESENTATIONS OR WARRANTY ON BEHALF OF ROSENBAUER AMERICA, LLC OR ANY OF ITS DISTRIBUTORS OTHER THAN SET FORTH IN THIS MANUFACTURER'S WARRANTY. YOUR RIGHT TO SERVICE AND REPLACEMENT OF PARTS ON THE TERMS EXPRESSLY SET FORTH HERIN ARE YOUR EXCLUSIVE REMEDIES AND NEITHER THE MANUFACTURER NOR ANY OF ITS DISTRIBUTORS SHALL BE LIABLE FOR DAMAGES, WHETHER ORDINARY, INCIDENTAL OR CONSEQUENTIAL.

Note: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.

One (1)
01-20-0250

PAINT WARRANTY FIVE YEAR

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The PPG paint performance guarantee will cover the areas of the vehicle finished with the specified product for a period of FIVE (5) years beginning the day the vehicle is delivered to the purchaser.

The full apparatus body, manufactured and painted by Rosenbauer America, LLC, shall be covered for the following paint failures as outlined on the guarantee certificate:

- Peeling or delaminating of the topcoat and/or other layers of paint.
- Cracking or checking.
- Loss of gloss caused by cracking, checking, or hazing.
- Any paint failure caused by defective PPG Fleet Finishes, which are covered by this guarantee.

All guarantee exclusions, limitations, and methods of claims are covered in the full certificate provided to the original purchaser.

Note: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.

One (1)
01-21-0150

LETTERING WARRANTY

Rosenbauer America, LLC warrants to the original purchaser only, that the lettering and striping, installed by Rosenbauer America, LLC, will remain free from defects for a period of one (1) year under normal use.

Rosenbauer America, LLC will replace without charge, repair or make a fair allowance for any defect in material or workmanship demonstrated to its satisfaction to have existed at the time of delivery or not due to misuse, negligence, or accident. If Rosenbauer America, LLC elects to repair this item, the extent of such repair shall be determined solely by Rosenbauer America, LLC, and shall be performed solely at the Rosenbauer America, LLC factory, or at an approved facility. The expense of any transportation to or from such repair facility shall be borne by the purchaser and is not an item covered under this warranty.

One (1)
01-17-0750

PUMP WARRANTY

Waterous warrants, to the original buyer only, that products and parts manufactured by Waterous will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one half 7-1/2 years from the date of shipment by Waterous, whichever period will be the first to expire; provided the buyer notifies Waterous in writing, of the defect in said product within the warranty period, and said product is found by Waterous to be conforming with the aforesaid warranty.

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When required in writing by Waterous, defective products must be promptly returned by the buyer to the Waterous Company at Waterous' plant at South St. Paul, Minnesota, or at such other place as may be specified by Waterous with transportation and other charges prepaid. A returned materials authorization (RMA) is required for all products and parts and may be requested by phone, fax or mail. The previously mentioned warranty excludes any responsibility or liability of Waterous for:

- A. Damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes or improper maintenance, or attributable to written specifications or instructions furnished by buyer;
- B. Defects in products manufactured by others and furnished by Waterous hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, Waterous will assign to the buyer, if requested by Buyer;
- C. Any product or part, altered, modified, serviced or repaired other than by Waterous, without its prior written consent.
- D. The cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation.
- E. Normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, etc.)

This warranty is subject to Waterous' conditions of sale (Waterous Company form number F-2190 as currently in effect all of which are herein incorporated and by this reference made a part hereof.

All other warranties are excluded, whether expressed or implied by operation of law or otherwise, including all implied warranties of merchantability or fitness for purpose. Waterous shall not be liable for consequential or incidental damages directly or indirectly arising or resulting from breach of any of the terms of this limited warranty or from the sale, handling, or use of any other product or part. Waterous' liability hereunder, either for breach of warranty or for negligence, is expressly limited at Waterous' option:

- A. To the replacement at the agreed point of delivery of any product or part, which upon inspection by Waterous or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- B. To the repair of such product or part, or
- C. To the refund or crediting to buyer of the net sales price of the defective product or part.

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Buyer's remedies contained herein are exclusive of any other remedy otherwise available to the buyer.

One (1)
01-17-1050

STAINLESS STEEL PLUMBING WARRANTY

The manufacturer shall provide a ten (10) year warranty on the stainless steel plumbing components and installation. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-18-0900

WATER TANK WARRANTY

The manufacturer shall provide a warranty for the G3 water tank. The manufacturer shall supply details of their warranty information with their bid submission.

One (1)
01-33-3100

BODY MANUAL - PRINTED WITH DIGITAL COPY

Rosenbauer shall provide with the vehicle upon delivery, one (1) complete delivery manual. This manual shall be in a notebook type binder, with reference tabs for each section of the vehicle. In addition to the printed material, a digital copy shall be provided.

Within each section shall be:

- Individual component manufacturer instruction and parts manuals
- Warranty forms for the body
- Warranty forms for all major components
- Warranty instructions and format to be used in compliance with warranty obligations
- Wiring diagrams
- Installation instruction and drawings for major parts
- Visual graphics and electronic photos for the installation of major parts
- Necessary normal routine service forms, publications and components of the body portion of the apparatus
- Technical publications for training and instruction on major body components
- Warning and safety related notices for personnel protection
- Cab and chassis manuals on parts, service and maintenance shall be provided

One (1)
01-33-3400

"ON-LINE" SERVICE MANUAL SUPPORT

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As part of the standard delivery manual, **ROSENBAUER** shall give a password-protected link to the end user, allowing access to the manufacturers' database on service parts. The internet-based system shall allow the end user to access the major component supplier's service parts listing such as Hale, Waterous, Akron, etc. This shall be accomplished with simplistic point and click features on the manufacturer line item within the "stripper" or "line item sheet". This will include, automatic updates, printable schematics and manufacturer's web links and is available in the commercially available format of Adobe Acrobat Reader to access these documents. Rosenbauer America, LLC shall submit with the bid proposal, a sample set of on line Adobe formatted material that has been printed from the manufacturer's website.

Parts Listings within Manuals

The manuals will include cross-reference part numbers from the **ROSENBAUER** part number to the vendor parts. Example: **ROSENBAUER** Hydraulic Ladder Rack, Part #LR-MN-0002 cross-referenced to Ziamatic Corporation Part 098-MN2345. This will allow for reference between individual parts and complete installation assemblies as completed by the body builder. The manuals will list all components of the vehicle that includes a vendor part utilized in a complete installation via the manufacturer's "line item sheet" or "stripper" utilized to manufacture the completed vehicle. These are "As Built" and proposals with "typical" or "generic" manuals will be rejected.

Illustrative Schematics within Manuals

ROSENBAUER shall include installation diagrams and drawings of all major sub assemblies. This will include components such as hydraulic ladder rack assemblies, pump panels, tanks, fire pumps, etc. The drawings shall be linked via an Internet based service program, in an electronic format from the manufacturers "stripper" (line item listing) of the manufacturing document. **ROSENBAUER** shall submit, upon request, a sample schematic.

Digital Images within Manuals

In addition to two and three-dimensional installation drawings, **ROSENBAUER** shall make accessible, via an internet based link, the actual photos of the installed components listed within the "stripper" or line sheet. This will include, but not limited to wiring terminals, main body distribution strips, fire pump shifting, auxiliary components, etc. **ROSENBAUER** shall submit a sample of these upon request.

Installation Instructions within Manuals

ROSENBAUER "work instructions" or "installation instructions" shall be included with the service manuals. These documents shall be accessible via a web-based link to the individual

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vehicle manufactured. The work instructions shall give systematic instructions of the component installation process. **ROSENBAUER** shall submit, upon request, a sample set of instructions.

Automatic Updates of Manuals and Parts Listings

The online manuals will include automatic updates that are accessible via the web link. When clicking on the part within the manufacturer's stripper or line sheet, it will allow the end user to access the component manufacturer website for updated information. This will allow for latest parts and service components from the individual part manufacturer or vendor.

Electrical Schematics

To maintain the vehicles electrical systems, the manufacturer shall provide to the purchaser the instructional manuals, complete electrical information and schematics on the vehicle. The electrical information shall be provided as follows:

Wiring Systems 12 and 120 Volt:

- Graphic symbols for electrical diagrams.
- Wire labeling, imprinting codes and index.
- Computer generated electrical schematics indicating the circuit number, wire size, switches, circuit breaker and terminals on the vehicle.

ROSENBAUER shall submit, upon request, a sample set of diagrams.

One (1)
02-90-1100

FREIGHTLINER CHASSIS

A Freightliner 2-door chassis per the attached specifications shall be furnished:

One (1)
50-03-1000

LOW VOLTAGE ELECTRICAL SYSTEM SPECIFICATIONS

The electrical system shall include all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The electrical equipment installed by the apparatus manufacturer shall conform to current automotive electrical system standards, the latest Federal DOT standards, and the requirements of the applicable NFPA standards.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness

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shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.

The wiring between the cab and body shall be joined using Deutsche type connectors or an enclosed in a terminal junction panel area. This system will permit body removal with minimal impact on the apparatus electrical system. All connections shall be crimp-type with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.

Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified every three-inches (3") by color coding or permanent marking with a circuit function code and identified on a reference chart or electrical wiring schematic per requirements of applicable NFPA #1901 standards.

The electrical circuits shall be provided with low voltage overcurrent protective devices. Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. The overcurrent protection shall be suitable for electrical equipment and shall be automatic reset type and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards.

The electrical system shall include the following:

- Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. A corrosion preventative compound shall be applicable to all terminal plugs located outside of the cab or body.

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- The electrical wiring shall be harnessed or be placed in a protective loom.
- Holes made in the roof shall be caulked with silicone. Large fender washers shall be used when fastening equipment to the underside of the cab roof.
- Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.
- A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
- All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.

The warning lights shall be switched in the chassis cab with labeled switches in an accessible location. Individual rocker switches shall be provided only for warning lights provided over the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator. The warning light switches shall be of the rocker type. For easy nighttime operation, an integral indicator light shall be provided to indicate when the circuit is energized. All switches shall be appropriately identified as to their function.

A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and "call for the right of way". When the parking brake is applied, a "blocking right of way" system shall automatically activate per requirements of the applicable NFPA standards. All "clear" warning lights shall be automatically turned off upon application of the parking brake.

NFPA REQUIRED TESTING OF ELECTRICAL SYSTEM

The apparatus shall be electrically tested upon completion of the vehicle and prior to delivery. The electrical testing, certifications, and test results shall be submitted with delivery documentation per requirements of the applicable NFPA standards. The following minimum testing shall be completed by the apparatus manufacturer:

1. Reserve capacity test:

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for ten (10) minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the

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engine shall be considered a failed test.

2. Alternator performance test at idle:

The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

3. Alternator performance test at full load:

The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed. The test duration shall be a minimum of two (2) hours. Activation of the load management system is permitted during this test. However, if an alarm sounds due to excessive battery discharge, as detected by the system requirements in the NFPA standards, or a system voltage of less than 11.7 volts dc for more than 120 seconds is present, the test has failed.

4. Low voltage alarm test:

Following the completion of the above tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates. The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts dc for a 12 volt system shall be considered a test failure. The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.

NFPA REQUIRED DOCUMENTATION

The following documentation shall be provided on delivery of the apparatus:

- a. Documentation of the electrical system performance tests required above.
- b. A written load analysis, including:
 1. The nameplate rating of the alternator.
 2. The alternator rating under the conditions.
 3. Each specified component load.

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4. Individual intermittent loads.

One (1)
50-05-1510

WEATHER RESISTANT ELECTRICAL JUNCTION BOX

The electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. In addition, the main body junction panel shall house the automatic reset breakers and relays where required. The main body junction panel shall be located in the pump compartment.

One (1)
50-12-1120

ELECTRICAL CONSOLE WITH EMERGENCY LIGHT SWITCH PANEL – THERMAL COATED

An electrical console shall be constructed of .125" black LineX coated smooth aluminum material, and mounted in the cab of the truck chassis. Console shall be designed and installed between the driver and passenger seats. The top face of the console shall be designed as the switch panel for all emergency light switches. The switch panel shall be hinged for easy access to the switch connections.

All emergency light switches shall be lighted, rocker style. Switches shall be internally lit when the switch circuit is in the on position. A plug-in identification label is to be provided and installed adjacent to each rocker switch with backlighting provided behind the label.

SWITCHES

A rocker style internally lighted switch shall be provided and wired through a heavy-duty relay to activate power to the emergency lights. The emergency lights shall be activated by a single "MASTER SWITCH" on the electrical console.

One (1)
50-15-1100

BATTERY SYSTEM

The battery system shall be supplied with the chassis.

One (1)
50-15-3100

MASTER ELECTRIC SWITCH

One (1) battery disconnect switch shall be located conveniently to the driver of the apparatus. The switch shall disconnect the 12 volt power supply from the battery system.

One (1)
50-15-5600

BATTERY CHARGER

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One (1) Kussmaul Autocharge 1000 model #091-215-12, 18 amp fully automatic high output battery charger shall be wired to the 12 volt battery system. The charger unit shall be mounted in a clean dry area and will be accessible for service and/or maintenance.

One (1)
50-20-1600

AUTO-EJECT

A Kussmaul "Super Auto-Eject" 20-amp automatic disconnect device shall be provided and installed on the 110 volt shoreline connection. The device shall be complete with weatherproof cover and matching plug with digital display, part number 091-55-194, incorporated into the cover. The Auto-Eject shall be activated by the chassis starter switch to disconnect the plug. The Super Auto-Eject shall be completely sealed to prevent contamination of the mechanism by inclement weather and road conditions. The Super Auto-Eject shall have an internal switch to open and close the AC circuit after the mating connector is inserted and before the connector is removed.

One (1)
50-20-1120

SHORE POWER PLUG

The shore power plug shall be located at the left front cab door.

One (1)
50-42-2000

AIR HORNS

Two (2) Stuttertone chrome plated air horns shall be mounted on the side of the hood of the commercial chassis. An air protection valve shall be provided in the air horn piping that will not allow the chassis air brake system to drop below 90 PSI.

One (1)
50-43-2000

ELECTRIC TRAFFIC HORN AND AIR HORN SELECTOR SWITCH

One (1) selector switch shall be provided on the cab's dash that will allow the chassis steering wheel horn button to activate either the electric traffic horn or air horn system.

One (1)
51-00-1700

12 VOLT POWER SOURCE

One (1) 12 volt power and ground connection rated at 30 amps shall be provided on the apparatus for the installation of a mobile two-way radio.

NOTE: Terminate in the center console.

One (1)

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51-00-4000

The power source shall be run through the chassis master battery switch and shall be deactivated when the master switch is in the "OFF" position.

One (1)

51-05-6200

ENGINE COMPARTMENT LIGHT

One (1) 12 volt LED light with switch shall be mounted in the engine enclosure.

One (1)

51-05-9000

The control switch shall be mounted on the light head.

One (1)

51-05-6400

PUMP ENCLOSURE LIGHTS

One (1) LED work light shall be provided in the pump enclosure.

One (1)

51-05-9000

The control switch shall be mounted on the light head.

One (1)

52-01-1200

BACK-UP ALARM

One (1) automatic electric back-up alarm shall be wired to the back-up light circuit, and mounted under the rear of the apparatus body.

One (1)

52-02-4000

BACKUP CAMERA SYSTEM

A Zone Defense camera system, complete with an 7" LCD display monitor, shall be supplied. The camera shall activate when the transmission is placed in reverse.

NOTE: Mount below intermediate step

One (1)

52-15-1200

RADIO ANTENNA BASE

One (1) radio antenna base shall be supplied and installed on the apparatus, the antenna coax terminating in the cab. The location shall be determined by the customer.

One (1)

53-01-1200

MARKER LIGHTS

LED marker lights shall be installed on the vehicle in conformance to the Department of

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Transportation requirements.

One (1)
53-02-1200

LICENSE PLATE BRACKET

One (1) stainless steel license plate bracket shall be provided at the rear of the apparatus. The bracket shall have a LED light.

One (1)
53-03-2600

TAIL LIGHTS

One (1) pair of Whelen 60BTT LED tail/brake lights shall be provided on the rear of the apparatus. The rectangular lights shall be 4" x 6" LED with a red lens.

One (1)
53-04-2600

TURN SIGNALS

One (1) pair of Whelen, 60A00TAR turn signals with populated arrow shape shall be provided. The rectangular LED lights shall be 4" x 6" in dimension and shall have an amber lens.

One (1)
53-06-3500

BACKUP LIGHTS

One (1) pair of Whelen LED backup lights shall be installed on the rear of the apparatus body. The dimensions shall be 4" x 6" and the lens color shall be clear.

One (1)
53-07-1200

FOUR LIGHT BEZEL

One (1) pair of tail light cluster bezels shall be supplied. Each bezel shall be designed to hold the specified rear lights located at the lower rear corners of the body.

One (1)
53-05-1800

MID BODY LED TURN SIGNALS

One (1) pair of mid body LED turn signals shall be provided. The location of the turn lights shall be at mid-body near the rear wheel axle.

One (1)
54-02-1600

CAB GROUND LIGHTS

Two (2) TecNiq E10 LED ground lights shall be installed on the chassis cab, one under each cab door.

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One (1)
54-02-2300

CAB STEP LIGHTS

There shall be LED cab step lights supplied below the chassis cab doors. The lights shall be mounted below the cab doors and illuminate the chassis cab steps. There shall be one (1) LED light located on each side of the chassis cab.

One (1)
54-03-1280

PUMP PANEL GROUND LIGHTS

Two (2) TecNiq LED #LED E10 ground lights shall be installed under the pump panel running boards. One (1) light shall be located on the driver's side and one (1) light located on the officer's side of the apparatus.

One (1)
54-03-1680

REAR STEP GROUND LIGHTS

Two (2) TecNiq LED #LED E10 ground lights shall be installed under the rear step. One (1) light shall be located on the driver's side and one (1) light located on the officer's side of the apparatus.

One (1)
54-04-1999

The ground lights shall automatically activate when the parking brake is applied.

Two (2)
54-10-1300

STEP LIGHT

Two (2) LED step light(s) with clear lens shall be installed.

Two (2)
54-10-1450

REAR TAILBOARD LIGHTS

Two (2) LED step lights with clear lens shall be installed to illuminate the step surfaces at the rear of the apparatus body.

One (1)
54-11-2100

The step/walkway light switch shall be installed and wired to the parking brake.

One (1)
54-12-1908

DECK LIGHTS - FRONT

The deck lights shall be installed at the front of the pre-connect hose beds.

One (1)
54-12-1410

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One (1)
54-12-3010

One (1) 12 volt Truck-Lite Model 81380 floodlight, with six (6) LED's, shall be installed.

Three (3)
54-15-4610

A deck light switch shall be installed and wired to the parking brake.

LED SURFACE MOUNT SCENE LIGHT

Three (3) Fire Research model SPA260-Q20 surface mount light shall be installed. The light shall be mounted with four (4) screws to a flat surface. It shall be 5-7/8" high by 14.5" wide and have a profile of less than 1 3/4" beyond the mounting surface. Wiring shall extend from a weatherproof strain relief at the rear of the light.

The lamphead shall have sixty (60) ultra-bright white LEDs, 56 for flood lighting and 4 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 13.8/6.9 amps, and generate 20,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead shall be powder coated. The LED scene light shall be for fire service use. The light housing shall be powdercoated with a chrome colored bezel.

One (1)
54-15-5500

SCENE LIGHT LOCATION

One (1) scene light shall be located on the left side of the apparatus body.

One (1)
54-15-1460

The scene light shall be installed on a treadplate mounting plate.

One (1)
54-15-5600

SCENE LIGHT LOCATION

One (1) scene light shall be located on the right side of the apparatus body.

One (1)
54-15-1460

The scene light shall be installed on a treadplate mounting plate.

One (1)
54-15-5700

SCENE LIGHT LOCATION

One (1) scene light shall be located on the rear of the apparatus body.

One (1)
54-15-6400

SCENE LIGHT SWITCHING

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One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the left side scene light(s). The switch shall be labeled "LEFT SCENE".

One (1)
54-15-6500

SCENE LIGHT SWITCHING

One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the right side scene light(s). The switch shall be labeled "RIGHT SCENE".

One (1)
54-15-6600

SCENE LIGHT SWITCHING

One (1) scene light switch with indicator shall be installed on the cab main switch panel to control the rear scene light(s). The switch shall be labeled "REAR SCENE".

One (1)
54-15-6700

SCENE LIGHT SWITCHING

The rear scene lights shall activate automatically upon placing the transmission into reverse.

One (1)
55-11-2100

DOOR OPEN LIGHT, (OSROOFCR)

One (1) red flashing, warning light shall be provided and installed in the driver's compartment to indicate an open passenger or apparatus compartment door. The warning light shall also be attached to folding equipment racks and light towers as specified. The light shall be a flashing Whelen OS red LED (OSROOFCR) light and shall be properly marked and identified.

One (1)
56-01-1360

ELECTRONIC SIREN

One (1) Federal Signal PA-300, model 690002, 100 watt full function electronic siren shall be mounted in the cab. The siren shall have the following features: electronic air horn, wail, yelp, priority, P.A., and shall have a hard wired microphone. The optional TAP II feature allows the driver to change the siren tone via the vehicle's horn ring. The siren shall be capable of driving (1) 100-watt speaker. The system shall automatically be protected from short circuits.

One (1)
56-02-1600

SPEAKER

One (1) Federal Signal DynaMax 100-watt speaker, Model #ES100C, shall be installed. The speaker shall feature a Neodymium driver and a high strength composite housing that is chemical resistant and maintains rigidity at high temperatures.

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One (1)
56-02-1650

SPEAKER

One (1) stainless steel grille shall be installed on the speaker.

One (1)
56-03-1200

SPEAKER LOCATION

The siren speaker shall be installed in the left side of the apparatus bumper.

One (1)
57-02-2000

LIGHTBAR

One (1) Whelen Justice series light bar shall be included with the apparatus cab. The light bar shall be a model JE0NFPA and shall be mounted on the roof of the cab, towards the front, above the windshield.

The light bar shall feature:

- A 62" light bar designed for high performance
- Four (4) red Linear Super LED corner modules
- Four (4) red CON3 LED hinged modules
- Two (2) white CON3 LED hinged modules with exterior clear optic lenses
- Clear hard coated lenses to provide extended life/luster protection against UV & chemical stresses
- Designed in accordance with NFPA Zone A requirements

One (1)
57-10-0600

LIGHTBAR ACTIVATION

The front upper light bar shall be activated through the master warning switch.

One (1)
58-71-1820

UPPER REAR WARNING LIGHTS

One (1) pair of Whelen Super LED, rotating beacons, P/N L31H*F, shall be installed, one each side on the upper rear of the apparatus body. The unit shall have dimensions of 4" high x 7-9/16" deep.

One (1)
57-20-8100

The driver side warning light shall be a Whelen LED rotator, model L31HRF with a red lens.

One (1)
57-20-8101

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The officer side warning light shall be a Whelen LED rotator, model L31HRF with a red lens.

One (1)
58-74-5100

REAR WARNING LIGHT MOUNTING

The upper rear lights shall be mounted on cast aluminum stanchions attached to the apparatus body, one on each side.

One (1)
58-46-1720

UPPER SIDE FRONT WARNING LIGHTS

One (1) pair of Whelen model #900 Super LED warning lights shall be installed, on the upper portion of the body side, towards the front. The dimensions of the lights shall be 7" x 9".

One (1)
54-15-1460

The scene light shall be installed on a treadplate mounting plate.

One (1)
57-20-7010

The driver side warning light shall be a Whelen Model 90RR5FRR red-LED with a red lens.

One (1)
7-20-7011

The officer side warning light shall be a Whelen Model 90RR5FRR red-LED with a red lens.

Two (2)
58-01-2280

Each light shall be mounted with a Whelen Model 900 chrome flange.

One (1)
58-03-1520

LOWER FRONT WARNING LIGHTS

One (1) pair of Whelen model #600 Super LED warning lights shall be installed, one each side one the front of the chassis cab. The dimensions of the lights shall be 4" x 6".

One (1)
57-20-4010

The driver side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

One (1)
57-20-4011

The officer side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

One (1)
58-01-2240

Each light shall be mounted with a Whelen Model 600 chrome flange.

One (1)
8-09-1520

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INTERSECTION WARNING LIGHTS

One (1) pair of Whelen model #600 red Super LED warning lights shall be installed one each side of the chassis cab. The dimensions of the lights shall be 4" x 6".

One (1)
57-20-4010

The driver side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

One (1)
57-20-4011

The officer side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

Two (2)
58-01-2240

Each light shall be mounted with a Whelen Model 600 chrome flange.

One (1)
58-26-1520

LOWER MID-BODY WARNING LIGHTS

One (1) pair of Whelen model #600 red Super LED warning lights shall be installed , one each side of the apparatus, mid-body. The dimensions of the lights shall be 4" x 6".

One (1)
57-20-4010

The driver side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

One (1)
57-20-4011

The officer side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

Two (2)
58-01-2240

Each light shall be mounted with a Whelen Model 600 chrome flange.

One (1)
58-36-2400

LOWER REAR SIDE WARNING LIGHTS

One (1) pair of Whelen model M2 LED warning lights shall be installed , one each side of the apparatus, towards the rear of the body, in the rub rail. The dimensions of the lights shall be 4-1/4" x 2-11/16".

Will only fit in EXT rub rail WITHOUT bezel

One (1)
57-20-1000

The driver side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

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One (1)
57-20-1001

The officer side warning light shall be a Whelen Model M2WR wide-angle red Super-LED™ with color lens.

Two (2)
58-01-2100

Each light shall be mounted with a Whelen Model M2FC chrome flange.

One (1)
58-81-1520

LOWER REAR WARNING LIGHTS

One (1) pair of Whelen model #600 Super LED warning lights shall be installed, one each side on the lower rear of the apparatus body. The dimensions of the lights shall be 4" x 6".

One (1)
57-20-4010

The driver side warning light shall be a Whelen Model 60R02FRR red-LED with a red lens.

One (1)
57-20-4013

The officer side warning light shall be a Whelen Model 60B02FBR blue-LED with a blue lens.

One (1)
10-02-1100

FLUID DATA PLAQUE

One (1) fluid data plaque containing required information shall be provided based on the applicable components for this apparatus, compliant with NFPA Standards:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Drive axle lubricant
- Power steering fluid
- Pump transmission lubrication fluid
- Other NFPA applicable fluid levels or data as required

Location shall be in the driver's compartment or on driver's door.

One (1)
10-02-1200

DATA & WARNING LABELS

HEIGHT LENGTH & WEIGHT

A highly visible label indicating the overall height, length, and weight of the vehicle shall be installed in the cab dash area.

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One (1)
10-02-1300

NO RIDE LABEL

One (1) "NO RIDERS" label shall be applied on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion is prohibited.

One (1)
10-02-2100

CAB SEATING POSITION LIMITS

One (1) label shall be installed in the cab to indicate seating positions for firefighters. A weight allowance of 250 pounds for each shall be factored into the gross vehicle weight rating of the chassis.

One (1)
10-02-2500

HELMET WARNING TAG

One (1) label shall be installed in the cab, visible from each seating position. The label shall read "CAUTION: DO NOT WEAR HELMET WHILE SEATED." Helmets must be properly stowed while the vehicle is in motion according to the current edition of NFPA 1901.

One (1)
10-03-6000

REAR TOWING PROVISIONS

There shall be two tow eyes furnished under the rear of the body and attached directly to the chassis frame rails. There shall be a reinforcement spreader bar connecting the two tow eyes. Tow eyes are to be constructed of 3/8" plate steel with a 4" I.D. hole, large enough for passing through a tow chain end hook.

One (1)
80-43-2400

The tow plates shall be painted black.

One (1)
10-04-0002

Bumper, Existing Comm Bumper

One (1)
10-06-1120

HUB AND LUG NUT COVERS

The apparatus shall have chrome or stainless steel hub and lug nut covers on the front and tandem rear axles.

One (1)
10-06-1650

TIRE PRESSURE INDICATOR

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There shall be a tire pressure indicator, p/n RWTG1235, at each tire's valve stem on the vehicle that shall indicate if there is insufficient pressure in the specific tire.

One (1)
10-07-1500

EXHAUST HEAT SHIELD

A heat shield shall be installed under the body in the areas where the exhaust system is routed.

One (1)
10-08-2100

REAR MUD FLAPS

One (1) pair of black mud flaps shall be installed behind the rear wheels.

One (1)
10-10-0400

CAB STEPS

The driver's side cab step area on the 2 door chassis shall be covered with slip resistant aluminum tread plate for compliance to applicable NFPA standards.

One (1)
10-10-0500

CAB STEPS

The passenger's side cab step area on the 2 door chassis shall be covered with slip resistant aluminum tread plate for compliance to applicable NFPA standards.

One (1)
10-19-4000

AIR SHORELINE CONNECTION

One (1) compressed air inlet fitting shall be provided for connection to an external air source to maintain the air brake pressure. The air inlet shall have a check valve installed to prevent air from escaping from the air storage tanks on the chassis.

The air inlet fitting shall be located in the driver's side step or door area.

One (1)
20-23-2200

WATEROUS CXVC20 SINGLE STAGE PUMP

A Waterous model CXVC20, single stage centrifugal pump shall be designed to mount on the chassis frame rails and shall be split-drive shaft driven. The pump casing shall be of high-tensile, close-grained ductile iron. Pump body shall be a single piece housing, for easy removal of impeller assembly including wear rings and bearings from beneath the pump without disturbing the mounting or piping.

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IMPELLER

A matched bronze impeller specifically designed for the fire service will be provided. It will be accurately balanced both mechanically and hydraulically, for vibration-free operation. Stainless steel heat-treated and precisely ground to size. It shall be supported on both ends by oil or grease lubricated ball bearings.

Replaceable wear rings, bronze, reverse-flow, labyrinth-type shall be provided. Deep groove ball bearings shall be located outside the pump to give rugged support and proper alignment to the impeller shaft. The bearings shall be oil or grease lubricated. All bearings shall be completely separated from the water being pumped.

PUMP TRANSMISSION

The housing shall be constructed of high tensile aluminum and be of three (3) piece, horizontally split design. The transmission driveline shafts shall be made from alloy steel forging, hardened and ground to size. The drive and driven sprockets shall be made of steel and shall be carbonized and hardened.

The drive chain shall be Morse HV involute form chain. The lubrication system shall be an impeller shaft driven oil pump to deliver oil to an integral spray header, to completely pressure lubricate the drive chain.

PUMP MOUNTING

The pump shall be bolted to steel angles in pump module, using grade 8 bolts.

DRIVELINE

Hollow-tube drivelines and universals shall be properly matched to the engine and transmission output torque ratings.

1500 GPM FIRE PUMP SPECIFICATIONS

The centrifugal type fire pump shall be a Waterous model CXC20 midship mounted with a rated capacity of 1500 GPM. The pump shall meet NFPA 1901 requirements.

The pump shall be certified to meet the following deliveries:

- 1500 GPM @ 150 PSI
- 1500 GPM @ 165 PSI
- 1050 GPM @ 200 PSI

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750 GPM @ 250 PSI

One (1)
22-24-1600

GATED 6" INTAKE -- LEFT SIDE

One (1) 6" gated suction intake shall be installed behind the left side pump panel to supply the fire pump from an external water supply. A manually operated butterfly valve with built in adjustable relief valve shall be provided on the intake. The valve shall be manually operated with a hand wheel control located adjacent to the intake connection.

The intake shall be provided with manual drain valves. An inlet fitting with 6" NST thread shall be provided, complete with a removable strainer screen.

One (1)
21-01-2500

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
22-41-5700

One (1) 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be equipped long handles.

One (1)
22-24-3600

GATED 6" INTAKE -- RIGHT SIDE

One (1) 6" gated suction intake shall be installed behind the right side pump panel to supply the fire pump from an external water supply. A manually operated butterfly valve with built in adjustable relief valve shall be provided on the intake. The valve shall be manually operated with a hand wheel control located adjacent to the intake connection.

The intake shall be provided with manual drain valves. An inlet fitting with 6" NST thread shall be provided, complete with a removable strainer screen.

One (1)
21-01-2500

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
22-41-5700

One (1) 6" chrome plated cap shall be provided. The threads shall be NST and the cap shall be

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equipped long handles.

One (1)
20-26-2200

FIRE PUMP MECHANICAL SHAFT SEAL

The Waterous fire pump shall be equipped with self-adjusting, maintenance free, 'mechanical shaft seal' which is designed to be functional in the unlikely event of a seal failure.

One (1)
20-26-2300

IMPELLER HUBS

The Waterous fire pump impeller hubs shall be standard bronze type.

One (1)
20-26-3200

ELECTRIC/PNEUMATIC PUMP SHIFT

The fire pump shift shall be air-operated incorporating an air cylinder with an electrically actuated pneumatic switch to shift from ROAD to PUMP and back. The fire pump shift control switch and valve shall be mounted in the cab.

The fire pump shift system shall be equipped with a means to prevent unintentional movement of the control device from its set position. The system shall include a nameplate indicating the chassis transmission shift selector position to be used for pumping and located so that it can be easily read from the driver's position.

The system shall include the applicable NFPA standard interlocks, pump shift and OK TO PUMP indicator lights in the cab and pump panel. The fire pump shift system shall be equipped with an interlock system to ensure that the pump drive system components are properly engaged in the pumping mode of operation so the pumping system can be safely operated from the pump operator's position.

If applicable, the secondary braking device shall be automatically disengaged for pumping operations.

One (1)
20-29-1200

TRIDENT PRIMER – AUTOMATIC

An automatic fire pump priming system shall be provided and installed. The system shall be oil-less type and environmentally safe. Once engaged, the system shall be fully automatic and not require any action from the pump operator/engineer when pump draft is lost. This feature provides an additional safety margin by maintaining pump flow from the available water source automatically during drafting operations. When air is introduced during a drafting operation from conditions such as whirlpools or turbulence from porta-tank refill operations, the priming

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system shall automatically engage to remove the air and stabilize water flow and pump pressure. For additional safety, the entire system shall operate at less than 70dBA of ambient noise.

The priming system shall engage automatically whenever the pump discharge falls below five (5) psi and shall remain engaged until a pump prime has been achieved. The priming system shall automatically disengage when a positive pump discharge pressure has been established. The electrical current draw from the chassis batteries shall not exceed four (4) amps at any given time of operation and allow for unlimited run time without causing an overheat condition for of any of the system components.

A single engagement switch shall be provided on the pump control panel that will allow the operator to engage the automatic pump priming system. There shall be a light provided on the pump control panel to indicate when the system is engaged. The pump shall be capable of taking suction and discharging water with a lift of 10 feet in not more than 30 seconds with the pump dry, through 20 feet of suction hose of appropriate size. The priming system shall comply with applicable sections of NFPA standards.

One (1)
20-29-1252

PRIMER CONTROL

A manual push button shall be provided on the pump operator's panel, for the manually priming the main pump.

One (1)
27-10-3400

PRESSURE GOVERNOR AND ENGINE-PUMP MONITORING

One (1) Fire Research InControl series TGA300 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 5 1/2" high by 10 1/2" wide by 2" deep. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.

The following continuous displays shall be provided:

- Pump discharge; shown with four daylight bright LED digits more than 1/2" high
- Pump Intake; shown with four daylight bright LED digits more than 1/2" high
- Pressure / RPM setting; shown on a dot matrix message display
- Pressure and RPM operating mode LEDs
- Throttle ready LED
- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Oil pressure; shown on a dual color (green/red) LED bar graph display

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- Engine coolant temperature; shown on a dual color (green/red) LED bar graph display
- Transmission Temperature: shown on a dual color (green/red) LED bar graph display
- Battery voltage; shown on a dual color (green/red) LED bar graph display.

The dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Battery Voltage
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Transmission Temperature
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Out of Water (visual alarm only)
- No Engine Response (visual alarm only).

The program features shall be accessed via push buttons located on the front of the control panel. There shall be an USB port located at the rear of the control module to upload future firmware enhancements.

Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical. The discharge pressure display shall show pressures from 0 to 600 psi. The intake pressure display shall show pressures from -30 in. Hg to 600 psi.

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor, monitoring and master pressure display shall be programmed to interface with a specific engine.

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APPROVED PUMP PANEL DRAWING

A pump panel drawing shall be provided for approval to the fire department prior to building the pump panel. The drawing will show the primary controls and gauges and not every switch or label. The pump panel controls shall reasonably resemble the the pump panel of the current truck (Picture attached).

Pump panel drawing shall be based on model of pump, manifolds, driveline angles, exhaust layout and other engineering concerns. The pump panel drawing is configured based on the pump and manifold design specified and in some cases changes to the lay out will be limited. Any changes made by the department are subject to engineering approval.

Delays in pump panel drawing approval may delay the completion of the apparatus.



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NOTE: Additional photos available from the dealer.

One (1)
21-00-2000

PUMP ANODES

There shall be sacrificial, zinc anodes in the pump steamer ports which shall protect the pump and piping from electrolysis. These anodes shall also act as screens.

One (1)
21-00-3300

PUMP PLUMBING SYSTEM

The fire pump plumbing system shall be of rigid stainless steel pipe or flexible piping with stainless steel fittings. Mechanical grooved couplings shall be installed to permit flexing of the plumbing system and allow for quick removal of piping or valves for service. Flexible hose couplings shall be threaded stainless steel or mechanical grooved coupling connections.

The fire pump and plumbing shall be hydrostatically tested in compliance to applicable sections of NFPA standards. The test results shall be included in the delivery documentation.

One (1)
21-01-0200

FIRE PUMP MASTER DRAIN

The fire pump plumbing system and fire pump shall be piped to a single push-pull type master pump drain assembly.

ADDITIONAL LOW POINT DRAINS

The plumbing system shall be equipped with additional low point manually operated drain valves to allow total draining of the fire pump plumbing system. These valves shall be accessible from the side of the vehicle and labeled.

One (1)
21-01-5500

STAINLESS STEEL INTAKE MANIFOLD

The suction manifold assembly shall be fabricated with Schedule #10 type 304 stainless steel. All threaded fittings shall be a minimum of Schedule 10 stainless steel. The suction manifold assembly shall have radiused sweep elbows to minimize water turbulence into the suction volute. The suction manifold shall be welded and pressure tested prior to installation. The stainless steel manifold assembly shall be attached to the pump intake volute with a heavy-duty, flexible Victaulic coupling.

The stainless steel manifold assembly shall have a ten (10) year warranty.

One (1)

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21-01-6500

STAINLESS STEEL DISCHARGE MANIFOLD

The discharge manifold assembly shall be fabricated with minimum of Schedule #10 Type 304 stainless steel. All threaded fittings shall be a minimum of Schedule #40 stainless steel. The discharge manifold assembly shall have radiused sweep elbows to minimize water turbulence. The manifold shall be welded and pressure tested prior to installation. The stainless steel manifold inlet shall be attached to the pump discharge and have additional brackets as required to support the discharge manifold, valves and related components.

The stainless steel manifold assembly shall have a ten (10) year warranty.

One (1)
21-01-7100

FIRE PUMP & PLUMBING SYSTEM PAINTING

The fire pump and plumbing system shall be painted by the fire apparatus manufacturer. The fire pump and the plumbing shall be painted metallic silver.

One (1)
21-01-8100

HOSE THREADS

The hose threads shall be National Standard Thread (NST) on all base threads on the apparatus intakes and discharges.

One (1)
22-51-5210

WATER TANK TO PUMP LINE

One (1) 3" water tank to the rear mounted fire pump line shall be provided with a full flow quarter turn ball valve, 4" piping, and with flex hose and stainless steel hose clamps. The tank to pump line shall be equipped with a check valve to prevent pressurization of the water tank.

The line shall be flow tested during the fire pump testing and shall meet applicable requirements of NFPA standards.

One (1)
22-50-0100

The tank to pump valve shall be controlled at the pump operator's panel.

One (1)
24-62-1300

The valve shall be an Akron 8000 Series three-inch (3") valve with a stainless ball.

One (1)
22-55-4012

One (1) Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature shall be provided on the intake. The handle shall be equipped with a color-coded name plate.

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One (1)
23-02-1300

FIRE PUMP TO WATER TANK FILL LINE

One (1) 2" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve with 2" piping and flex hose to tank. The valve control handle shall have a nameplate located near the valve control.

One (1)
24-62-1200

The valve shall be an Akron 8000 Series two-inch (2") valve with a stainless ball.

One (1)
22-55-4012

One (1) Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature shall be provided on the intake. The handle shall be equipped with a color-coded name plate.

One (1)
20-30-3100

FIRE PUMP SPLIT SHAFT DRIVESHAFTS AND INSTALLATION

The mid-ship split shaft fire pump shall be installed and shall include installation of the fire pump, modification and/or fabrication of new drivelines and all pump-mounting brackets. The drive shaft(s) shall be spin balanced prior to final installation.

One (1)
20-31-3600

INTAKE RELIEF/DUMP VALVE

One (1) TFT A18 series, 2-1/2" intake relief/dump valve preset at 125 psi shall be permanently installed on the suction side of the fire pump. The valve shall have an adjustment range of 75 psi to 250 psi, and shall be designed to automatically self-restore to a non-relieving position when excessive pressure is no longer present.

Discharge side of the intake relief valve shall be plumbed away from the pump operator.

One (1)
20-31-4100

FIRE PUMP COOLING

The fire pump shall be equipped with 3/8" cooling line from the pump to the water tank. This re-circulation line shall be controlled by a pump panel control valve with nameplate label noting it as the "fire pump bypass cooler". There shall be a check valve installed in the pump cooler line to prevent tank water from back flowing into the pump when it is not in use.

One (1)
20-31-5100

CHASSIS ENGINE HEAT EXCHANGER COOLING SYSTEM

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The apparatus shall be equipped with a heat exchanger for supplementary chassis engine cooling during fire pump operations. A manually opened valve, mounted at the operator's panel, shall direct water from the fire pump to the heat exchanger that is mounted in the engine radiator cooling hose. The system shall provide cooling water from the fire pump to circulate around the engine radiator coolant without mixing or coming in direct contact with the engine coolant.

A nameplate label shall be installed on the pump panel noting "engine cooling system" with "on-off" opening directions noted.

One (1)
20-31-1100

UNDERWRITERS LABORATORIES FIRE PUMP TEST

The pump shall undergo an Underwriters Laboratories Incorporated test per applicable sections of NFPA standards, prior to delivery of the completed apparatus.

The UL acceptance certificate shall be furnished with the apparatus on delivery.

One (1)
20-31-1500

FIRE PUMP TEST LABEL

A fire pump performance and rating label shall be installed on the fire apparatus pump panel. The label shall denote levels of pump performance and testing completed at factory. These shall include GPM at net pump pressure, RPM at such level, and other pertinent data as required by applicable NFPA standards. In addition, the pressure control device, tank to pump flow tests, and other required testing shall be completed.

In addition, the entire pump, suction and discharge passages shall be hydrostatically tested to a pressure as required by applicable NFPA standards. The pump shall be fully tested at the pump manufacturer's factory to the performance specifications as outlined by applicable NFPA standards. Pump shall be free from objectionable pulsation and vibration.

If applicable, the fire pump shall be tested and rated as follows:

- 100% of rated capacity at 150 pounds net pressure.
- 70% of rated capacity at 200 pounds net pressure.
- 50% of rated capacity at 250 pounds net pressure.
- 100% or rated capacity at 165 pounds net pressure.

One (1)
22-12-1100

LEFT SIDE -- 2-1/2" GATED INTAKE

One (1) 2-1/2" gated suction intake shall be installed on left side pump panel to supply the fire pump from an external water supply. The control valve shall be a quarter turn ball valve and

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shall have 2-1/2" NST female thread of chrome plated brass.

The intake shall be equipped with a 3/4" drain and bleeder valve. A nameplate label and removable screen shall be installed.

One (1)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

One (1)
22-41-1100

One (1) 2-1/2" chrome plated plug shall be provided. The threads shall be NST and the plug shall be equipped rocker lugs and chain or cable securement.

One (1)
24-62-1250

The valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
22-55-4050

The valve shall be equipped with one (1) manually operated, swing-type manual control located adjacent the intake. The valve shall be equipped with a color-coded name plate.

One (1)
23-06-2200

TWO (2) 1-1/2" CROSSLAY DISCHARGES

Two (2) pre-connect 1-3/4" hose crosslays shall be installed over pump enclosure, with quarter turn 2" diameter ball valves. The outlets shall be a 2" NPT female swivel x 1-1/2" male NST hose threads.

The crosslay hosebeds shall have smooth aluminum sides. The hosebed decking shall be constructed with slots integrated into the hosebed floor.

Each hosebed shall provide for a minimum capacity of 200 feet of 1-3/4" diameter double jacket hose with nozzle, for hose provided by the fire department. A divider shall be installed to separate the crosslay beds.

Two (2)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

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Two (2)
24-61-1200

The specified valve shall be an Akron 8000 Series two-inch (2") valve with a stainless ball.

Two (2)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

Two (2)
27-02-1500

Two (2) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-07-2100

2-1/2" CROSSLAY DISCHARGE

One (1) pre-connect 2-1/2" hose crosslay shall be installed over the pump enclosure with a quarter turn 2-1/2" diameter ball valve. The outlet shall be a 2-1/2" NPT female swivel x 2-1/2" male NST hose threads.

The hosebed decking shall be constructed with slots integrated into the hosebed floor.

The hose bed shall provide for a minimum capacity of 200 feet of 2-1/2" diameter double jacket hose with the hose and nozzle provided by the fire department.

One (1)
21-01-2202

A Class 1 automatic type 3/4" bleeder valve shall be installed.

One (1)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate

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valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-08-3300

CROSSLAY HINGED COVER WITH END FLAPS

The crosslay hosebed shall be equipped with a single aluminum diamond plate hinged cover with vinyl end flaps with hook & loop fasteners. The cover shall have rubber bumpers, latching devices, and lift up handle on each end of the cover. The cover will be hinged to open towards the cab.

The hosebed cover shall be labeled, "Not a Standing or Walking Surface", per NFPA.

One (1)
9-20-5602

The vinyl cover shall be black in color.

One (1)
23-08-4120

CROSSLAY HOSE BED TRIM

The crosslay hosebed shall be equipped stainless steel trim, one on each end of the hosebed.

One (1)
23-08-5020

CROSSLAY HOSEBEDS

Crosslay discharges shall be "LOW MOUNTED" above the lower pump panel.

One (1)
23-09-4100

LEFT SIDE PUMP PANEL -- 2-1/2" DISCHARGE

One (1) 2-1/2" discharge shall be installed on the left side pump panel area and shall be controlled by a quarter turn ball valve. The discharge shall have 2-1/2" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

One (1)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out

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proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

One (1)
24-02-1200

One (1) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

One (1)
24-03-1400

One (1) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

One (1)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
24-53-0800

One (1) manually operated swing type valve with control located adjacent the valve, shall be supplied on the specified discharge. The control handle shall be equipped with quarter-turn locking feature. The valve shall be equipped color-coded name plate.

OTE: The handle should be mounted horizontally.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-10-4100

RIGHT SIDE PUMP PANEL -- 2-1/2" DISCHARGE

One (1) 2-1/2" discharge shall be installed on the right side pump panel area and shall be controlled by a quarter turn ball valve. The discharge shall have 2-1/2" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

One (1)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

One (1)
24-02-1200

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One (1) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

One (1)
24-03-1400

One (1) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

One (1)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-10-5200

RIGHT SIDE PUMP PANEL -- 3" x 4" DISCHARGE

One (1) 3" discharge shall be installed on the right side pump panel area and shall be controlled by a full flow 3" slow-close quarter turn ball valve. The discharge shall have 4" NST male hose threads. A color coded nameplate label shall be provided adjacent the control handle.

One (1)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

One (1)
24-02-2600

One (1) lightweight aluminum elbow with 30 degree slant shall be provided. Threads shall be 5" Storz with lugs and manual locks x 4" female swivel NST with rocker lugs.

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One (1)
24-03-2200

One (1) 5" lightweight aluminum Storz cap with cable or chain securement shall be provided.

One (1)
24-61-1300

The specified valve shall be an Akron 8000 Series three-inch (3") valve with a stainless ball.

One (1)
24-53-0300

One (1) Akron valve equipped with a manually operated pull rod, with quarter-turn locking feature and a manual slow-close device shall be provided on the specified discharge. The handle shall be equipped with color-coded name plate.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
23-13-3100

REAR LEFT SIDE -- 2-1/2" DISCHARGE

One (1) 2-1/2" discharge shall be installed on the left side rear panel of the apparatus body and shall be controlled by a quarter turn ball valve on the pump panel. The discharge shall have 2-1/2" NPT x 2-1/2" NST male hose threads. The outlet shall be equipped with an engraved nameplate label shall be installed adjacent the valve control handle.

One (1)
21-01-2502

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift to open and push down to close.

One (1)
24-02-1200

One (1) chrome plated elbow with rocker lugs shall be provided with 2-1/2" NST swivel female x 2-1/2" NST male hose threads.

One (1)
24-03-1400

One (1) 2-1/2" NST rocker lug chrome plated vented cap and cable or chain securement shall be provided.

One (1)
24-61-1250

The specified valve shall be an Akron 8000 Series two and one half-inch (2-1/2") valve with a stainless ball.

One (1)
24-53-0020

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For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

One (1)
24-30-3700

ELECTRIC REWIND HOSE REEL

One (1) Hannay painted steel hose reel with leak proof ball bearing swing joint, adjustable friction brake, electric rewind shall be installed. The reel shall be plumbed with wire reinforced, high-pressure hose coupled. The reel shall be bolted to a mounting system for easy service or removal.

The hose reel is to be mounted in the lower rear body compartment.

One (1)
24-31-2100

A push button hose reel rewind switch shall be installed to control the electric rewind hose reel. The exact location shall be determined at construction.

One (1)
24-32-1200

One (1) 1" discharge shall be provided and piped from the fire pump to the hose reel with flexible high pressure hose. The quarter turn ball valve shall be controlled on pump panel. A color-coded nameplate label shall be provided near the valve control handle.

One (1)
21-01-2500

An Innovative Controls 3/4" cast bronze quarter-turn drain/bleeder valve shall be installed. The valve shall be complete with a chrome plated bronze ball, reinforced teflon seals, and blow-out proof stem rated to 600 PSI. A chrome plated zinc handle shall be provided on each drain valve complete with a recessed ID label provision. The handle shall lift, to open and push down, to close.

One (1)
24-32-1700

The specified hose reel shall be piped to the normal pressure side of the fire pump.

One (1)

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24-61-1100

One (1) Akron 8000 Series one-inch (1") valve with a stainless ball shall be supplied.

One (1)
24-53-0020

For valve actuation, the specified discharge shall be equipped with a side mount valve control. The ergonomically designed 1/4 turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and signage. The gear-control rod, double laminated locking clips, and rod housing shall be stainless steel and provide true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall eliminate rod deflection, never need lubrication and ensure consistent long-term operation.

The control assembly shall include a decorative chrome-plated zinc panel mounted bezel with recessed color-coded label.

One (1)
27-02-1500

One (1) 2-1/2" IC discharge pressure gauges (0-400 PSI) shall be provided. The face of the gauge shall be a WHITE dial with black letters. The gauges will be located on the pump instrument panel.

Two (2)
24-33-1500

50' foot length(s) of 1" water hose with pin lug couplings and 800 PSI working pressure shall be provided and mounted on the specified hose reel.

One (1)
24-33-9300

One (1) stainless steel roller assembly shall be provided on the rear hose reel.

One (1)
80-43-1600

HOSE REEL PAINTING

The hose reel(s) shall be painted silver grey.

One (1)
26-02-2200

SIDE MOUNT PUMP ENCLOSURE

The side mount pump enclosure shall be removable and supported from the chassis frame rails. This enclosure will allow independent flexing of the pump enclosure from the body and allow for quick removal. The support structure shall be constructed of extruded aluminum tubing and angle.

All pump suction and discharge controls are to be mounted on the driver side pump operator's panel so as to permit operation of the pump from a central location. The fire pump, valves and controls shall be accessible for service and maintenance as required by applicable sections of NFPA standards.

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The "master" gauges shall be suitably enclosed and mounted on a full pump compartment width "hinged" gauge panel constructed of the same material as the pump operators control panel, allowing access to the backside of all gauges and gauge lines. The individual gauges shall be mounted inline with the control handle or adjacent to the control handle. Panel is to include a stainless steel piano hinge, flush mounted chrome plated trigger latch, and stainless steel cable end stops. Electrical wiring and all gauge lines shall be properly tie wrapped to prevent kinking or cutting of the lines when the panel is opened.

The following controls and equipment as specified in the specifications, shall be provided on the pump panel or within the pump enclosure:

- Primer.
- Pump and plumbing area service lights.
- Pressure control device and throttle control.
- Fire pump and engine instruments.
- Pump intakes and discharge controls.
- Master intake and discharge gauges.
- Tank fill control.
- Tank suction control.
- Water tank level gauge.
- Pump panel lights.

Crosslay Installation

The area atop the pump enclosure shall be notched for the installation of a crosslay hose bed. The hosebed shall have smooth sides and a perforated floor to allow for drainage. Provisions shall be provided to secure hose and equipment per requirements of applicable NFPA standards.

One (1)
26-10-2100

OPEN DUNNAGE COMPARTMENT -- OVER PUMP ENCLOSURE

One (1) open compartment shall be located on the top of the pump module. The compartment will be constructed as large as space permits with removable slip resistance floor material or decking in the base of the compartment.

One (1)
26-30-1100

LEFT SIDE RUNNING BOARD -- SIDE MOUNT PANEL

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The left side mount pump panel shall be equipped with side running board. The running board will extend along the width of the pump enclosure from the forward end of the body module to behind the chassis cab.

The running board shall be constructed of aluminum tread plate, bolted in place with stainless steel fasteners. The step surfaces shall be in compliance with applicable sections of NFPA requirements.

One (1)
26-30-5000

HOSEWELL COMPARTMENT -- LEFT SIDE RUNNING BOARD

One (1) hosewell shall be recessed in the left side running board of the apparatus pump panel. The hosewell shall be constructed of aluminum material and shall be provided with drain holes drilled in each bottom corner with plastic grating on the floor.

The hose and couplings shall be secured in compliance to applicable NFPA standards.

Capacity for the following purchaser supplied hose:

One (1)
26-30-6200

HOSE WELL SECUREMENT

There shall be two (2) Velcro straps provided for the securement of the hose in the running board hose well.

One (1)
26-30-1150

RIGHT SIDE RUNNING BOARD -- SIDE MOUNT PANEL

The right side mount pump panel shall be equipped with side running board. The running board will extend along the width of the pump enclosure from the forward end of the body module to behind the chassis cab.

The running board shall be constructed of aluminum tread plate, bolted in place with stainless steel fasteners. The step surfaces shall be in compliance with applicable sections of NFPA requirements.

One (1)
26-30-5200

HOSEWELL COMPARTMENT -- RIGHTSIDE RUNNING BOARD

One (1) hosewell shall be recessed in the right side running board of the apparatus pump panel. The hosewell shall be constructed of aluminum material and shall be provided with drain holes drilled in each bottom corner with plastic grating on the floor.

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The hose and couplings shall be secured in compliance to applicable NFPA standards.

Capacity for the following purchaser supplied hose:

One (1)
26-30-6200

HOSE WELL SECUREMENT

There shall be two (2) Velcro straps provided for the securement of the hose in the running board hose well.

One (1)
26-35-3200

PUMP PANELS -- SIDE MOUNT

The pump operator's panel, along with the lower left hand and right hand pump panels shall be constructed of 14 gauge #304 brushed stainless steel and be fastened to the pump enclosure with 1/4" stainless steel bolts.

The instrument area shall have a stainless steel continuous hinge that shall swing for easy access to gauges.

One (1)
26-35-1100

LEFT SIDE PUMP PANEL -- BOLTED

The pump panel installed on the left hand side of the pump enclosure shall be fastened to the pump enclosure with 1/4" stainless steel bolts.

One (1)
26-35-1400

HINGED PUMP PANEL -- RIGHT SIDE

The pump panel installed on the on the right hand side of the pump enclosure shall be hinged with push-button latches.

One (1)
26-36-5100

PUMP PANEL STAINLESS STEEL TRIM PANELS

Stainless steel intake and discharge trim rings shall be installed to the apparatus with mounting bolts. These assemblies will be used to identify intake and discharge ports with color and verbiage, using separate identification tags protected by chrome plated bezels. These trim rings are designed and manufactured to withstand the environment and shall be backed by a warranty equal to that of the exterior paint and finish. All labels shall be backed with 3M permanent adhesive (200MP), which meets UL969 and NFPA standards.

One (1)
26-50-1200

PUMP COMPARTMENT HEATER SYSTEM

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The interior of the pump enclosure shall be equipped with a minimum of 30,000 BTU hot water heater system. The unit shall be piped to the chassis radiator system with standard heater hose. The hose shall be properly clamped and secured in place, and be properly protected from engine exhaust or mechanical damage.

The heater unit shall be equipped with a 12-volt blower fan with control located on the pump operator's panel.

One (1)
26-50-3100

PUMP ENCLOSURE HEAT PAN

A removable casing constructed of galvanized steel, completely enclosing the underside of the pump compartment and heated by the engine exhaust shall be provided. The heat pan assembly shall include individual panels that can be easily removed from their mounting locations. The two outer slide-out panels shall be bolted in place.

One (1)
26-55-1100

LABELS

Safety, information, data, and instruction labels for apparatus shall be provided and installed at the operator's instrument panel.

The labels shall include rated capacities, pressure ratings, and engine speeds as determined by the certification tests. The no-load governed speed of the engine, as stated by the engine manufacturer, shall also be included.

The labels shall be provided with all information and be attached to the apparatus prior to delivery.

One (1)
26-55-2400

COLOR CODED PUMP PANEL LABELING AND NAMEPLATES

Discharge and intake valve controls shall be color coded in compliance to guidelines of applicable sections of NFPA standards.

Innovative Controls permanent type nameplates and instruction panels shall be installed on the pump panel for safe operation of the pumping equipment and controls.

One (1)
26-56-1125

MIDSHIP PUMP PANEL LIGHTS -- LEFT SIDE

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Three (3) Techiq E10-W0001-1 or equal LED lights with clear lenses shall be installed under an instrument panel light hood on the left side pump panel. The lights shall be controlled by a switch located on the operator's instrument panel.

One (1)
26-56-1225

MIDSHIP PUMP PANEL LIGHTS -- RIGHT SIDE

Two (2) Tecniq E10-W0001-1 or equal LED lights with clear lenses shall be installed under an instrument panel light hood on the right side pump panel. The lights shall be controlled by a switch located on the operator's instrument panel.

One (1)
26-56-2000

PUMP ENGAGED LIGHT

One (1) pump panel light shall be illuminated at the time the fire pump is engaged into operation. The remaining lights shall be controlled by a switch located on the operator's instrument panel.

One (1)
27-01-3300

DIGITAL MASTER DISCHARGE AND INTAKE GAUGES

The digital master discharge pressure and intake gauges shall be provided on the pump instrument panel as part of the Fire Research Corporation In-Control pressure governor system. The digital pressure gauge display shall be a waterproof display with super-bright digits at least 1/2" high. A weatherproof transducer (transmitter) shall be installed in the appropriate location in the piping system.

One (1)
27-01-4100

TEST TAPS

Test taps for pump intake and pump pressure shall be provided on the pump instrument panel and be properly labeled.

One (1)
27-35-2000

WATER TANK GAUGE

The apparatus shall be equipped with one (1) Class1 "Intelli-Tank" water tank level gauge system. The tank level gauge shall indicate the liquid level on an easy to read LED display and show increments of 1/8 of a tank.

Each tank level gauge system shall include:

- A pressure transducer mounted on the outside of the tank in an easily accessible area.
- A super bright LED 4-light displays with a visual indication at nine accurate levels.
- Weather resistant connectors to connect to the digital display, to the pressure transducer and to

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the apparatus power.

The primary water tank level gauge shall be installed at the pump panel.

One (1)
27-35-2100

WATER TANK GAUGE

The apparatus shall be equipped with one (1) Class1 “Intelli-Tank” water tank level gauge and shall be installed on the rear of the apparatus body. The tank level gauge shall indicate the liquid level on an easy to read LED display and show increments of 1/8 of a tank.

Each tank level gauge system shall include:

- A pressure transducer mounted on the outside of the tank in an easily accessible area. Sealed foam tanks will require zero pressure vacuum vents.
- Super bright LED 4-light display with a visual indication at nine accurate levels.

Weather resistant connectors to connect to the digital display, to the pressure transducer and to the apparatus power.

One (1)
47-01-0500

BOOSTER TANK

Booster Tank shall be constructed to meet and or exceed the requirements set forth in the NFPA pamphlet 1901, 2009 edition. Booster tanks shall be constructed of ½” thick UV stabilized Copolymer Polypropylene virgin grade sheet stock. All material used, seen and unseen, shall be a minimum of ½” non-corrosive UV stabilized stress relieved Copolymer Polypropylene thermoplastic, black in color and UV stabilized for maximum protection. The booster and or foam tank shall be a specific configuration and so designed to be completely independent of the body compartments. All baffles and structural components shall have rabbet and dado joint construction to gain mechanical advantage. All components must be extrusion welded on all sides, walls, gussets, baffles, top and bottom to add structural support. After all components are extrusion welded, they must be visually, electronically and hydraulically tested to insure maximum strength and integrity. The top of the booster tank must be fitted with removable lifting eyes to facilitate easy removal. All swash partitions (Transverse and Longitudinal) must be manufactured from ½” UV Stabilized Copolymer Polypropylene. All partitions must be designed and equipped with proper venting and passage ways to allow movement of air and water through the compartments. All partitions must be designed to provide maximum water flow. All longitudinal and transverse partitions must be interlocked and extrusion welded to each other as well as the walls of the tank.

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Tank to have a **Lifetime Warranty**.

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of ½" Copolymer Polypropylene with a minimum dimension of 12"x 8". The tower shall be located in the front corner, unless otherwise specified. The tank shall have a ½" thick removable Copolymer Polypropylene screen and hinged cover. Located inside the cover shall be a combination vent and overflow pipe. The minimum I.D of 4" schedule 40 Copolymer polypropylene pipe shall run inside the tank to behind the rear wheels, to maximize the traction.

The tank lid shall be constructed of UV Stabilized ½" Copolymer Polypropylene. The tank must have a removable lid to allow for complete inside inspection and cleaning, per NFPA 1901 A.18.2.2. All mechanical fasteners used to hold the lid shall be stainless steel, utilizing bolts and locking nuts. The tank must be designed in such a way to keep the fasteners from contact with the contents of the tank. A minimum of two lifting dowels must be incorporated into the tank to facilitate installation and removal of the tank.

There shall be one sump standard per tank. The sump shall be located in the front quarter of the tank, unless otherwise specified. On all tanks that require a front suction, a 3" schedule 40 Copolymer pipe shall be installed that will incorporate a dip tube from the front of the tank to pump location. The sump shall be a minimum of 10"x10"x5" The sump shall have a minimum of a 3" n.p.t. machined outlet. The sump shall be used as a combination clean out and drain. All tanks shall have anti-swirl plate located above the sump.

One (1)
47-01-1080

WATER TANK - 3000 GALLON

The apparatus shall be equipped with a three-thousand (3000) gallon polypropylene water tank.

One (1)
47-01-1900

WATER TANK

The booster tank shall be a TEE shape and design to allow for maximum compartmentation, and a lower center of gravity.

One (1)
47-01-5100

QUICK DUMP PROVISIONS - SIDE

Provisions for a left side quick dump shall be provided on the apparatus.

One (1)
47-01-5200

QUICK DUMP PROVISIONS - SIDE

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Provisions for a right side quick dump shall be provided on the apparatus.

One (1)
25-50-3000

DIRECT TANK FILL

One (1) 4.0" diameter direct tank fill inlet shall be provided. The inlet shall have a 4.0" diameter slow-close gear operated valve and shall include a 4" NSTM male adapter and cap.

The valve and control handle shall be located at the rear of the apparatus body. The fill line shall have an "in-tank" slow fill safety protection system to protect the tank during filling for high flow conditions.

One (1)
24-01-4600

One (1) lightweight aluminum adapter shall be provided. Threads shall be: 5" Storz with lugs with manual locks x 4" female swivel NST with rocker lugs.

One (1)
24-03-2200

One (1) 5" lightweight aluminum Storz cap with cable or chain securement shall be provided.

One (1)
25-62-1260

QUICK DUMP - REAR

One (1) Newton 10" quick dump valve shall be provided and externally mounted. The location shall be at the center rear of the apparatus.

One (1)
25-62-2100

One (1) manual operated lever control shall be used to open and close the rear dump valve.

One (1)
25-62-2550

The Newton dump valve installed on the water tank shall be painted grey.

One (1)
25-62-4300

One (1) swivel dump shall be fabricated with .125" aluminum and attached to the Newton Quick Dump.

The swivel dump shall have the ability to dump water from the driver's side or the officer's side and any point in between. The swivel dump is 70 inches long when fully extended. The swivel dump shall have an extension that is hinged and can be folded up when the dump is not in use. The dump shall have the ability to be stowed on either the driver's side or the officer's side of the truck. The latch that holds the extension in the stowed position shall also help support the swivel dump extension.

When the extension is in the down and extended position, there shall be no less than a 34 inch clearance from level ground to the bottom of the dump to ensure that there is enough clearance

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for the swivel dump to offload into all portable drop tanks.

The dump shall meet NFPA requirements for water delivery on three sides of the vehicle.

One (1)
25-62-4310

CAST HANDLE

A cast handle shall be installed vertically at the end of the lower dump chute. This shall provide a firm gripping handle to reposition the dump chute. The handle shall prevent the tendency to grab the top chute and add undue stress to the hinged in trying to pivot the chute.

One (1)
29-10-2000

ALUMINUM HOSEBED GRATING

The hose bed compartment deck shall be constructed entirely from maintenance-free, extruded aluminum slats. The slats shall have an anodized, radiused ribbed top surface. The slats shall be of widths approximately 3/4" high x 6" wide and shall be assembled into a one-piece grid system to prevent the accumulation of water and allow ventilation to assist in drying hose.

The apparatus hose body shall be properly reinforced without the use of angles or structural shapes and free from all projections that might injure the fire hose.

The main apparatus hose body shall run the full length of the apparatus body from behind the pump panel area to the rear face of the body.

The upper rear interior of the hose body on the right and left sides shall be overlaid with brushed stainless steel to protect the painted surface from damage by hose couplings.

One (1)
29-10-5100

HOSE BED STORAGE CAPACITY

The hose bed shall be designed to have a storage capacity for a minimum of 55 cubic feet of fire department supplied fire hose.

Two (2)
29-10-8100

ALUMINUM HOSEBED DIVIDER

Two (2) adjustable hosebed divider constructed of .250" aluminum shall be installed on the apparatus.

One (1)
29-20-5000

VINYL HOSEBED COVER

The apparatus shall be equipped with a vinyl hosebed cover with a weighted rear flap.

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The cover, approximately 74" wide, shall be secured utilizing a Velcro fastening system at the front and sides of the hosebed body.

One (1)
29-20-5602

The vinyl cover shall be black in color.

One (1)
30-00-0000

BODY CONSTRUCTION

One (1)
30-01-1910

3/16" ALUMINUM BODY

The body shall be fabricated of aluminum extrusions, smooth aluminum sheet and aluminum treadplate.

The aluminum extrusion alloy shall be 6061 with a temper rating of T6, and have a tensile strength of 45,000 PSI and yield strength of 40,000 pounds. The aluminum extrusions shall 3" x 3" aluminum tubing, 1-3/4" x 3" aluminum tubing and 3" x 3" aluminum angle and specially designed extrusions, up to .250" wall thickness where applicable.

The smooth aluminum sheet material alloy shall be 5052 with a temper rating of H32, and have a tensile strength of 33,000 PSI and yield strength of 28,000 pounds.

The aluminum treadplate alloy shall be 3003 with a temper rating of H22, and have a tensile strength of 30,000 PSI and yield strength of 28,000 pounds.

The extrusions shall be designed as structural-framing members with the smooth aluminum and treadplate fabricated to form compartments, hosebeds, and floors. All aluminum material shall be welded together using the latest mig spray pulse arc welding system.

Compartment floors shall be of the sweep out design with the floor higher than the compartment door lip and to be water and dust proof. All compartments shall be made to the maximum practical dimensions to provide maximum storage capacity. To ensure maximum storage space, the apparatus shall be constructed without any void spaces between the body and the compartment walls. Double wall construction does not meet this requirement.

All exterior compartments shall have polished aluminum drip moldings installed above the doors where necessary to prevent water from entering the compartments.

Wheel well panels shall be formed aluminum that is welded in place. There shall be no visible bolt heads, retention nuts or fasteners on the exterior surface of the panel. To fully protect the wheel well area from road debris and to aid in cleaning, a full depth radius wheel well liner shall

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be provided. The frame side of the wheel well area on each side of the opening shall be attached to the frame side of the front and rear compartments. All seams on the frame side of the body shall be welded and caulked to prevent moisture from entering the compartments.

The rear wheel wells shall be radius cut for a streamlined appearance. A fenderette shall be furnished at each rear wheel well opening, held in place with stainless steel fasteners.

FASTENERS

All aluminum and stainless steel components shall be attached using stainless steel fasteners.

Compartment door hinges, handrails and running boards shall be attached using minimum 1/4" diameter machine bolt fasteners.

3/16" diameter fasteners shall only be used in nonstructural areas such as; door handles, trim moldings, gauge mounting, etc.

One (1)
30-02-2100

COMPARTMENT FLOORS

The compartment floors shall be constructed of aluminum treadplate material.

One (1)
30-10-1100

GALVANIZED SUB-FRAME

The apparatus body subframe shall be constructed entirely of heavy steel structural channel material.

Two full frame lengths, three-inch (3") 3.4 pound per foot longitudinal steel channels shall form the sides of the body subframe and sides of the water tank cradle. Subframe crossmembers shall be fabricated with three inch (3") 3.4 pound per foot heavy steel channel cross members welded to the longitudinal body subframe sides and the full length frame pads.

Two full frame length 1/2" x 3" flat steel frame pads shall be attached to the body subframe and rest on top of the chassis frame rails for proper frame weight distribution.

The steel frame pads, longitudinal steel channels and subframe crossmembers shall be attached to the chassis frame rails using heavy "U" bolt fasteners to allow removal of the subframe and body assembly from the chassis. There shall be a barrier provided between the subframe and body to prevent electrolysis.

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The rear subframe and lower body platform support members shall be of the "two piece" design, fabricated of 3.4 lb. Per foot heavy channel and welded to the full length subframe channel liners at the rear.

A minimum of two rear platform support channels shall be provided and constructed of 3.4 lb. Per foot heavy steel material. Each support channel shall have welded in gusset where the support meets the rear subframe rails.

After fabrication the entire subframe assembly shall be hot dip galvanized to prevent corrosion. The hot dip galvanized subframe shall have a lifetime warranty against failure due to corrosion.

This steel subframe shall carry the weight of the apparatus body, tank, water and equipment. This method of apparatus construction gives an excellent strength/weight ratio.

One (1)
31-01-1300

BODY CONFIGURATION

The aluminum apparatus body shall be up to 220" long, reference the drawing for actual body length.

One (1)
44-06-3100

TANDEM AXLE WHEEL AREA

For ease of accessibility and maintenance, wheel well panels shall be double break formed painted smooth plate that is welded in place.

To fully protect the wheel well area from road debris and to aid in cleaning, a full depth (minimum of 25") radius wheel well liner shall be provided. Wheel well liner shall be smooth aluminum to prevent corrosion.

One (1)
44-06-4100

FENDERETTES

The rear wheel wells shall be radius cut for a streamlined appearance. A polished aluminum fenderette shall be furnished at each rear wheel well opening, held in place with concealed stainless steel fasteners.

One (1)
29-00-1320

HOSEBED WIDTH

The width of the pumper body hosebed shall be 74".

One (1)
32-03-0030

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COMPARTMENT HEIGHT

The left side body compartments shall be 30" high.

One (1)
32-03-1066

COMPARTMENT HEIGHT

The right side body compartments shall be 66" high.

Six (6)
30-02-1150

ROLL UP DOOR CONSTRUCTION

The roll up door(s) shall be fabricated from aluminum extrusions and be manufactured and assembled in the United States.

The door slats shall be double-wall extrusions with dimensions of 1.366" high x .315" thick. The exterior surface shall be flat and the interior surface concave to deflect loose equipment to prevent the door from jamming. Each slat shall have interlocking end shoes to prevent the slat from moving side to side resulting in binding of the door. Each slat shall be separated by a co-extruded PVC and rubber inner seal to prevent metal to metal contact and minimize dirt and moisture from entering the compartment. The inner seal shall not be visible from the exterior to maintain a clean appearance of door. The slats shall have interlocking joints with a folding locking flange to provide security and prevent penetration by sharp objects.

The track shall be a one (1) piece aluminum assembly that has an attaching flange and finishing flange incorporated into the design that facilitates installation and provides a finished look to the door without additional trim or caulking. A low profile side seal shall be utilized to maximize usable compartment space.

A drip rail designed to prevent water from dripping into the compartment shall be provided. The drip rail shall have a built in replaceable non-contacting seal to eliminate scratching of the surface of the door.

Bottom rail extrusion must have smooth back to prevent loose equipment from jamming the door and have "V" shaped double seal to prevent water and debris from entering the compartment. The door latch system shall be a full width one (1) piece lift bar that enables the user to operate with one hand.

The roll mechanism shall have a clip system that connects the curtain slats to the operator drum to allow for easy tension adjustment without tools. A four (4) inch diameter counterbalanced operator drum to shall be incorporated to assist in lifting the door.

One (1)
32-05-1030

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LEFT FRONT COMPARTMENT

There shall be one (1) low compartment located ahead of the rear wheels. The compartment shall be equipped with a low single natural finish roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
45-05-1100

250# ROLLOUT TRAY

One (1) roll-out equipment tray shall be installed in a standard depth compartment. The tray with telescoping slides and roller bearings shall be rated to a maximum load of 250 lbs. Tray shall be of a closed-in design, formed of .125" smooth aluminum plate, fabricated with two (2) inch sides.

The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold tray in both fully-extended and stored positions.

One (1)
55-01-1150

COMPARTMENT LIGHT

One (1) ROM vertically mounted roll-up compartment LED V3 door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1400

The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.

One (1)
32-05-1630

LEFT REAR COMPARTMENT

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There shall be one (1) low compartment located behind the rear wheels. The compartment shall be equipped with a low single natural finish roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

One (1)
55-01-1150

COMPARTMENT LIGHT

One (1) ROM vertically mounted roll-up compartment LED V3 door light shall be installed on one side of the door opening. The compartment light shall be integrated into the roll-up door track with the light actuation with the door opening.

The light shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1400

The compartment light will be controlled by a magnetic "On-Off" switch located on each compartment door.

One (1)
32-06-1120

RIGHT FRONT COMPARTMENT

There shall be one (1) full height compartment located ahead of the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Two (2)

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45-02-1200

ADJUSTABLE SHELF

Two (2) adjustable shelf shall be constructed of .125" smooth aluminum plate with 1.5" formed vertical lip front & back. Shelf supports on each side to be constructed of .188" aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8" bolts and spring-loaded cam locks. If shelf is longer than 40" a reinforcement by aluminum gusset is to be placed full-length on bottom of shelf.

One (1)
45-05-1100

250# ROLLOUT TRAY

One (1) roll-out equipment tray shall be installed in a standard depth compartment. The tray with telescoping slides and roller bearings shall be rated to a maximum load of 250 lbs. Tray shall be of a closed-in design, formed of .125" smooth aluminum plate, fabricated with two (2) inch sides.

The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold tray in both fully-extended and stored positions.

One (1)
55-01-1250

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V3 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
32-06-1420

RIGHT HIGH SIDE COMPARTMENTS

There shall be two (2) compartments located above the lower compartments. Each of the two (2) compartments shall be equipped with a natural finish roll up door.

The compartment shall be equipped with the following:

Two (2)
44-40-1100

Two (2) louver with filter shall be installed in the compartment.

City of Howard Lake

Two (2)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, horizontally mounted, that are bolted in place for SCBA bracket mounting.

Four (4)
90-21-1100

SCBA MOUNTING BRACKET

Four (4) Zico 30 minute SCBA air pack mounting with spring tension bracket included.

NOTE: Locate in R2.

Two (2)
55-01-1250

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V3 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

Two (2)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
32-06-1720

RIGHT REAR COMPARTMENT

There shall be one (1) full height compartment located behind the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door.

The compartment shall be equipped with the following:

One (1)
44-40-1100

One (1) louver with filter shall be installed in the compartment.

One (1)
45-01-1050

ADJUSTABLE SHELVING TRACKS

The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

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One (1)
45-16-1100

ROLL-OUT ALUMINUM TOOL BOARD

One (1) roll-out tool board panel shall be mounted vertically within compartment. The panel and tracks shall be rated to a maximum load of 500 lb. Panel to be formed of .188" smooth aluminum with an opening to accommodate a gloved-hand to slide tool board.

The tool board shall slide out to full extension of the compartment, with a device to hold tool board in both fully-extended and stored positions.

One (1)
55-01-1250

COMPARTMENT LIGHTS

Two (2) ROM vertically mounted roll-up compartment LED V3 door lights shall be installed one each side of the door opening. The compartment lights shall be integrated into the roll-up door tracks with the light actuation with the door opening.

The lights shall have a polycarbonate lens to eliminate breakage from impact and eliminate heat buildup.

One (1)
5-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
33-60-1100

REAR BODY CONFIGURATION

The rear of the apparatus body shall be of the flat back design.

One (1)
32-08-0500

REAR CENTER COMPARTMENT

A compartment shall be installed at the rear of the body, between the frame rails. The compartment shall be equipped with a hinged drop down door.

The dimensions of the compartment shall be 38" wide x 19" high to frame rail deep. The booster reel will be located in this compartment.

One (1)
32-08-0910

The compartment door shall be constructed from aluminum treadplate.

The compartment shall be equipped with the following:

One (1)

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55-02-1200

COMPARTMENT LIGHT

One (1) LED light fixture shall be installed in the upper area of the exterior compartment of the apparatus. The light shall have a clear lens.

One (1)
55-06-1100

The compartment light will be controlled by an automatic "On-Off" switch located on each compartment door.

One (1)
33-61-1700

REAR STEP - 20" BOLT-ON

A 20" deep step surface shall be provided at the rear of the apparatus body, bolted in place and easily removable for replacement or repair. The tailboard shall be constructed of .188" aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards.

A label shall be provided warning personnel that riding on the rear step while the apparatus is in motion is prohibited.

One (1)
90-02-3500

SLIDE OUT VERTICAL LADDER MOUNTINGS

The ladder shall slide into the right rear of the apparatus, through the right side of the body. The vertically mounted slide in assembly shall be an integral part of the body and accessible through a hinged door.

One (1)
90-02-2920

The hinged door shall be constructed of smooth material, with chevron striping applied to match the rear of the apparatus body.

One (1)
90-02-5310

INTERNAL FOLDING ATTIC LADDER MOUNTING

An internal mounting shall be provided for the specified folding attic ladder.

One (1)
90-03-0225

LADDER SOURCE

New ground ladders shall be provided by the body builder.

Two (2)
90-16-5400

PIKE POLE MOUNTING BRACKET

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Two (2) tube shall be provided for pike pole mounting. The tube shall have a 2" interior diameter and shall be mounted in the ladder tunnel.

One (1)
90-16-6115

PIKE POLE SOURCE

The pike poles shall be provided by the body builder.

One (1)
90-25-7750

HARD SUCTION MOUNTING

One (1) hard suction hose compartment shall be provided above the portable tank holder, on the left side. The design shall allow the hose to be individually removed from the rear of the apparatus. The hard suction compartment shall be constructed of smooth material painted to match the body and shall be equipped with a hinged door with push to latch door catches.

One (1)
90-02-2900

The hinged door shall be constructed of aluminum treadplate.

One (1)
90-25-7500

HARD SUCTION MOUNTING

One (1) hard suction hose compartment shall be provided below the upper "T" of the booster tank, on the left side. The design shall allow the hose to be individually removed from the rear of the apparatus. The hard suction hose compartment shall have a hinged door with push to latch door catches.

One (1)
90-02-2900

The hinged door shall be constructed of aluminum treadplate.

One (1)
90-25-9115

SUCTION HOSE SOURCE

New suction hose shall be provided by the body builder.

One (1)
90-30-3800

PORTABLE WATER TANK MOUNTING SYSTEM

There shall be one (1) ZICO Quic-Lift Hydraulic Portable Tank System, Model PTS-HA storage carrier provided on the left side of the booster tank and above the lower compartments to carry a portable folding tank. The tank carrier shall hold the folding tank in the vertical position for travel, and fold down over the lower body side for loading and unloading. The folding tank carrier shall have two high strength aluminum casting sets, dual self-contained hydraulic actuators and a PTS-HA-CH center hinge. The hydraulic actuators shall be controlled with a

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weather-tight momentary switch located on left side of the body. There shall be a reinforcement plate installed on the compartment top where the folding tank carrier is attached. The Quic-Lift Hydraulic Portable Tank System shall be capable of being lowered manually if a failure occurs.

One (1)
90-30-3992

The folding tank storage carrier shall be provided with a smooth aluminum cover enclosing the folding tank, painted to match the body.

One (1)
90-30-5115

FOLDING TANK SOURCE

New folding tank shall be provided by the body builder.

One (1)
33-66-2160

FOLDING STEPS RIGHT SIDE FRONT

Four (4) folding steps of die cast high-strength zinc/aluminum alloy, plated with a superior automotive grade chrome finish shall be provided. The greater than 42 sq. in. serrated non-skid step traction area also offers an oversized non-slip grasp hand-hold. A heavy duty stainless steel spring design firmly holds the step in the open or closed positions. A rubber stop prevents any transit noise and rattles in the closed position. Step lighting shall be from a LED light mounted above the step.

The step has been third part tested to assure conformation of NFPA 1901 and FHA, 49CFR specifications for stepping surfaces and handhold.

The step shall be installed on the right side front compartment face.

One (1)
44-01-1450

FRONT BODY PROTECTION PANELS

Aluminum tread plate overlays and panels shall be installed on the front of the body compartment from the lower edge to the top of the compartment doors.

One (1)
44-01-6000

CATWALKS

Aluminum tread plate catwalks shall be installed on the top of the compartments.

One (1)
44-01-4000

REAR BODY PROTECTION PANELS

The rear body panels of the body shall be a smooth material, to allow for the proper application and installation of a "Chevron" stripe on the rear.

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One (1)
33-62-4160

FOLDING STEPS LEFT SIDE REAR

Four (4) folding steps of die cast high-strength zinc/aluminum alloy, plated with a superior automotive grade chrome finish shall be provided. The greater than 42 sq. in. serrated non-skid step traction area also offers an oversized non-slip grasp hand-hold. A heavy duty stainless steel spring design firmly holds the step in the open or closed positions. A rubber stop prevents any transit noise and rattles in the closed position. Step lighting shall be from a LED light mounted above the step.

The step has been third part tested to assure conformation of NFPA 1901 and FHA, 49CFR specifications for stepping surfaces and handhold.

The steps shall be installed on the rear left side of the body.

One (1)
33-62-4260

FOLDING STEPS RIGHT SIDE REAR

Four (4) folding steps of die cast high-strength zinc/aluminum alloy, plated with a superior automotive grade chrome finish shall be provided. The greater than 42 sq. in. serrated non-skid step traction area also offers an oversized non-slip grasp hand-hold. A heavy duty stainless steel spring design firmly holds the step in the open or closed positions. A rubber stop prevents any transit noise and rattles in the closed position. Step lighting shall be from a LED light mounted above the step.

The step has been third part tested to assure conformation of NFPA 1901 and FHA, 49CFR specifications for stepping surfaces and handhold.

The steps shall be installed on the rear right side of the body.

One (1)
33-62-5400

REAR INTERMEDIATE STEP

An intermediate fixed step shall be provided at the rear of the apparatus body, bolted in place and easily removable for replacement or repair. The intermediate step shall be constructed of .188" polished aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards and be approximately 8" deep x 68" wide.

One (1)
33-70-1200

HANDRAIL REAR STEP

Two (2) extruded aluminum non-slip handrails, approximately 30" in length, shall be provided

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and vertically mounted on the rear of the apparatus, one (1) on each side of the body.

One (1)
33-70-2200

HANDRAIL BELOW HOSEBED

One (1) extruded aluminum non-slip handrail, approximately 60" in length, shall be provided and horizontally mounted below the hosebed on the rear of the apparatus.

One (1)
33-70-4100

HANDRAIL SIDE PUMP PANEL

One (1) extruded aluminum non-slip handrail, approximately 12" in length, shall be provided and vertically mounted, on the *right* side pump panel.

NOTE: Locate on the right side.

One (1)
44-02-1100

EXTRUDED ALUMINUM RUB RAILS

Full body length polished aluminum rub rails shall be bolted in place on the lower right and left body sides. The side rub rails shall be a heavy extruded aluminum "C" channel.

One (1)
44-02-2000

NYLON SPACERS FOR RUB RAILS

There shall be nylon spacers provided between the rub rail and the body. This shall allow wash out and replacement in the event of damage.

One (1)
44-11-5200

WHEEL WELL PROVISIONS LOCATION

The wheel well provisions shall be located on the left side of the apparatus, between the rear tandem wheels.

One (1)
44-10-2100

One (1) breathing air cylinder storage compartment for two (2) SCBA cylinders (not supplied) shall be provided and located in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in-place and removable for repair or replacement.

The compartment shall be provided with SCBA cylinder scuff protection.

Two (2)

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44-10-6000

Two (2) one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)
44-11-5600

WHEEL WELL PROVISIONS LOCATION

The wheel well provisions shall be located on the right side of the apparatus, between the rear tandem wheels.

One (1)
44-10-2100

One (1) breathing air cylinder storage compartment for two (2) SCBA cylinders (not supplied) shall be provided and located in the rear wheel well of the apparatus body.

The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in-place and removable for repair or replacement.

The compartment shall be provided with SCBA cylinder scuff protection.

Two (2)
44-10-6000

Two (2) one-inch (1") wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch (1") of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1)
60-26-1000

CHASSIS CAB SHORELINE RECEPTACLES

Receptacles shall be wired to the shoreline for the charging of portables. Final location to be determined at pre-construction conference.

One (1)
60-25-1500

POWER DISTRIBUTION STRIP

One (1) power distribution strip with six (6) straight blade receptacles shall be provided. The unit shall have a 20 amp capacity and an integral on/off switch.

One (1)
60-30-5400

The electric receptacle shall be located inside the front portion of the cab.

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NOTE: To be locate on the center console, exact position TBD.

One (1)
60-26-1100

SHORELINE RECEPTACLES

The following receptacles shall be wired to the shoreline power.

Two (2)
60-25-1700

POWER DISTRIBUTION STRIP

Two (2) 60" power distribution strip with ten (10) straight blade receptacles shall be provided. The unit shall have a 15 amp capacity.

One (1)
60-30-2400

The electric receptacle shall be located inside the right side exterior body compartment ahead of the rear wheels.

One (1)
60-30-2450

The electric receptacle shall be located in the right side exterior body compartment over the rear wheels.

One (1)
80-05-1300

BODY PAINT PROCESS

All bright metal fittings, if unavailable in stainless steel shall be heavily chrome plated. Iron fittings shall be copper plated prior to chrome plating. If applicable, any and all accessory times shall be removed from the body prior to cleaning and painting. Any accessory items that are to be painted, shall be painted separately and installed after the body is painted and cured.

All seams shall be caulked, both inside and along the exterior edges, with a urethane automotive sealant to prevent moisture from entering between any body panels.

The body and all parts shall be thoroughly washed with a grease cutting solvent (PPG CFX436) prior to any sanding. After the body has been sanded and the weld marks and minor imperfections are filled and sanded, the body shall be washed again with (PPG CFX436) to remove any contaminants on the surface.

The next two to four coats (depending on need) shall be a PPG DelFleet F4936 High Solids Epoxy Gray Primer. The film build shall be 4-6 mils when dry. The primer surfacer coat, after appropriate dry time, shall be sanded with 320-600 grit sandpaper to ensure maximum gloss of the paint. The last step is the application of at least three coats of PPG DelFleet polyurethane FBC-color, the film build being 2-3 mils dry. Followed by three coats PPG DelFleet F3906 high

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build clear, the film build being 2-3 mils dry. This shall provide a UV barrier to prevent fading and chalking.

All products and technicians are certified by PPG every two (2) years.

One (1)
80-06-1100

APPARATUS COLOR

The apparatus shall be ____ in color.

One (1)
80-33-1200

INTERIOR COMPARTMENT FINISH

The interior of the eight (8) compartments shall be unpainted and have a swirl finish.

One (1)
80-42-1500

TOUCH-UP PAINT

One (1) two (2) ounce bottle of touch-up paint shall be furnished with the completed truck at final delivery.

One (1)
80-50-1200

LETTERING

The purchaser shall supply the apparatus lettering.

One (1)
80-70-1200

REFLECTIVE STRIPING

The purchaser shall supply reflective striping for the apparatus in compliance to applicable NFPA standards.

One (1)
80-72-1100

CHEVRON STRIPING

The entire rear portion of the body shall have 3M reflective red and yellow striping installed. The chevron style striping shall be applied at a 45-degree upward angle pointing towards the center upper portion of the rear panel.

One (1)
80-79-1000

YELLOW SAFETY TAPE - STANDING & WALKING SURFACES

City of Howard Lake

The apparatus shall be NFPA standard 15.7.1.6 designating any horizontal standing or walking surface higher than 48-in (1220 mm) from the ground and not guarded by railing or structure at least 12-in (300 mm) high shall have at least a 1-in (25 mm) wide safety yellow line delineation that contrasts with the background to mark the outside perimeter of the designated standing or walking surface area, excluding steps and ladders.

One (1)
90-01-5900

WHEEL CHOCKS WITH MOUNTS

A pair of Zico Model SAC-44 Quic-Chok folding wheel chocks shall be provided and mounted under the apparatus body with model SQCH-44H horizontal mounting brackets.

One (1)
90-03-3300

ROOF LADDER

One (1) Duo Safety Model 775-A, 14 foot aluminum roof ladder with folding steel roof hooks on one end and steel spikes on the other end shall be provided on the apparatus. The ladder shall meet or exceed all latest NFPA Standards.

One (1)
90-06-4600

EXTENSION LADDER

One (1) Duo-Safety Model 900-A, 24 foot two (2) section aluminum extension ladder shall be provided on the apparatus. The ladder shall meet or exceed all the latest NFPA standards.

One (1)
90-08-2600

FOLDING LADDER

One (1) Duo Safety Model 585-A, 10 foot folding aluminum ladder shall be provided on the apparatus. The ladder shall meet or exceed all the latest NFPA Standards.

One (1)
90-16-2600

PIKE POLE

One (1) 8' pike pole with round handle shall be provided. The pike pole shall be of fiberglass construction.

One (1)
90-16-2800

PIKE POLE

One (1) 10' pike pole with round handle shall be provided. The pike pole shall be of fiberglass construction.

Two (2)
90-25-3100

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SUCTION HOSE

Two (2) 6.0" x 10 foot length of PVC flexible suction hose shall be supplied. The suction hose shall have light weight couplings provided.

Two (2)
90-25-6100

HOSE COUPLINGS

Light weight aluminum couplings shall be provided on the suction hose. A long handle female swivel shall be provided on one end and a rocker lug male shall be provided for the other end.

One (1)
90-30-1700

FOLDING PORTABLE WATER TANK

One (1) 3000 gallon, 22 oz vinyl, portable water tank shall be provided. The tank shall include an aluminum support frame.

Rosenbauer- South Dakota

DEPARTMENT: HOWARD LAKE, MN

Wheel Base	242
C A	176.4
Cab to Pump Compartment	5.4
Pump Compartment	44
Tank Length Lower	216
Tank Length Upper	216
Body Length	220
Total Tank Capacity	3000
Aerial Size	0



Percent of Weight to Front Axle		
Water (& Foam) Lower	Body	Pump
6.61%	6.61%	61.57%
Water (& Foam) Upper	Aerial	Hose
6.61%	NA	11.57%

	TOTAL WT	FRONT WT	REAR WT
Water (& Foam) Lower	4,314	285	4,029
Water (& Foam) Upper	22,986	1,520	21,466
Body	5,720	378	5,342
Pump	2,425	1,493	932
Aerial	NA	0	0
SUB TOTAL	35,445	3,676	31,769
Chassis	16,886	8,342	8,544
SUB TOTAL	52,331	12,018	40,313
Miscellaneous Equipment	1,250	463	787
NFPA 1901 Equipment Allowance	2,167	325	1,842
NFPA Personnel Load (Included in Chassis if 0)	500	384	116
Hose Load	1,265	146	1,119
Ground Ladders	123	8	115
	0	0	0
TOTAL	57,636	13,345	44,290
		23.15%	76.85%

NOTE: Weights shown are approximate

Proposed chassis information:		Brand:	FL	Crew Doors:	2	
			2 Wheel Drive			GVWR
Axle Capacities:	Front:	16,000		Rear:	46,000	62,000
Estimated Chassis Weight: (includes +5% variance)	Front:	8342		Rear:	8544	

NOTE: Chassis weights **MUST BE VERIFIED** by the DEALER. Dealer will be responsible for confirming the axles are adequate for the proposed apparatus. 1000# extra capacity per axle is recommended.



One (1) Year

Bumper to Bumper

Material and Workmanship

TERMS AND CONDITIONS

Rosenbauer hereby warrants each new fire apparatus to be free from defects in material and workmanship for a warranty period of one (1) year starting on the date the vehicle is delivered to original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure and within one (1) year from the date of delivery of the apparatus to the original purchaser. The inspection must indicate that the failure was attributed to defective material or workmanship. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Normal maintenance services or adjustments, including but not limited to glass, filters, batteries, screens, lubricants, light bulbs, belts, hoses, wiper blades and other incidentals.
- Any item that has been repaired, replaced or altered by a facility not approved in advance by Rosenbauer, or in a manner which, at Rosenbauer's discretion, may adversely affect the safe operation or durability of the vehicle or item.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any malfunction resulting from misuse, negligence, alteration, accident or lack of operational knowledge, lack of normal or required maintenance or adjustments, exposure to corrosive agents, fire, severe environmental conditions or acts of God.
- Items which are manufactured by a party other than Rosenbauer and which are separately warranted by that party, including but not limited to commercial chassis, engine, transmission, driveline and axles.

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL.

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.



Five (5) Year FX Aluminum Body Structural Warranty

TERMS AND CONDITIONS

Rosenbauer hereby warrants the Rosenbauer FX aluminum body to be structurally sound and will retain its structural integrity for a warranty period of five (5) years starting on the date the vehicle is delivered to original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer, must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure and within five (5) years from the date of delivery of the apparatus to the original purchaser. The inspection must indicate that the failure was attributed to defective material or workmanship. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Normal maintenance services or adjustments.
- Any item that has been repaired, replaced or altered by a facility not approved in advance by Rosenbauer or in a manner which, at Rosenbauer's discretion, may adversely affect the safe operation or durability of the vehicle or item.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any malfunction resulting from misuse, negligence, alteration, accident or lack of operational knowledge, lack of normal or required maintenance or adjustments, exposure to corrosive agents, fire, severe environmental conditions or acts of God.
- Items which are manufactured by a party other than Rosenbauer and which are separately warranted by that party.

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.



Lifetime

Hot Dipped Galvanized

Body Sub Frame

TERMS AND CONDITIONS

Rosenbauer hereby warrants the hot dipped galvanized body sub frame of each new fire & rescue vehicle to be free from defects in material or workmanship for the life time of the vehicle. This warranty terminates upon transfer of possession or ownership by original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer, must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure. The inspection must indicate that the failure was attributed to defective material or workmanship. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Normal maintenance services or adjustments.
- Any item that has been repaired, replaced or altered by a facility not approved in advance by Rosenbauer or in a manner which, at Rosenbauer's discretion, may adversely affect the safe operation or durability of the vehicle or item.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any malfunction resulting from misuse, negligence, alteration, accident or lack of operational knowledge, lack of normal or required maintenance or adjustments, exposure to corrosive agents, fire, severe environmental conditions or acts of God.
- Items which are manufactured by a party other than Rosenbauer and which are separately warranted by that party.

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL.

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.



Five (5) Year Paint Warranty

TERMS AND CONDITIONS

Rosenbauer hereby warrants the paint on the body of each new fire & rescue vehicle to be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection for a warranty period of five (5) years starting on the date the vehicle is delivered to original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure and within five (5) years from the date of delivery of the apparatus to the original purchaser. The inspection must indicate that the failure was attributed to an adhesion defect caused by defective manufacturing methods or paint material selection. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Any item that has been repaired, repainted or altered by a facility not approved in advance by Rosenbauer.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any defect resulting from misuse, negligence, alteration, accident or lack of normal or required maintenance or adjustments, exposure to corrosive agents, fire, severe environmental conditions or acts of God.
- Painted items which are manufactured by a party other than Rosenbauer and which are separately warranted by that party included cabs not manufactured and painted by Rosenbauer .

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL.

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.



One (1) Year

Lettering and Graphics

TERMS AND CONDITIONS

Rosenbauer hereby warrants that the lettering or graphics provided on each new fire apparatus to be free from defects in material and workmanship for a warranty period of one (1) year starting on the date the vehicle is delivered to original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure and within one (1) year from the date of delivery of the apparatus to the original purchaser. The inspection must indicate that the failure was attributed to defective material or workmanship. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Any item that has been repaired, replaced or altered by a facility not approved in advance by Rosenbauer.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any malfunction resulting from misuse, negligence, alteration, accident, exposure to corrosive agents, fire, severe environmental conditions or acts of God.

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL.

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.



Ten (10) Year

Stainless Steel Plumbing

TERMS AND CONDITIONS

Rosenbauer hereby warrants the stainless steel plumbing and manifolds of the fire pump assembly of each new fire & rescue vehicle to be free from defects in material or workmanship for a warranty period of ten (10) years starting on the date the vehicle is delivered to original purchaser. Under this warranty, Rosenbauer agrees to furnish any item or items to replace those that have been found to be defective in material or workmanship where there is no indication of abuse, neglect or other than normal service. Such an item or items, at the option of Rosenbauer, must be made available for our inspection at our request and returned to our factory or another location designated by Rosenbauer. Transportation of such an item or items will be arranged and covered by buyer within thirty (30) days after the date of failure and within ten (10) years from the date of delivery of the apparatus to the original purchaser. The inspection must indicate that the failure was attributed to defective material or workmanship. Authorization for repair or item replacement must be sought from Rosenbauer customer service department prior to repair or item replacement occurring.

THIS WARRANTY SHALL NOT APPLY TO OR COVER THE FOLLOWING:

- Normal maintenance services or adjustments.
- Any item that has been repaired, replaced or altered by a facility not approved in advance by Rosenbauer or in a manner which, at Rosenbauer's discretion, may adversely affect the safe operation or durability of the vehicle or item.
- Special, incidental or consequential damages including, but not limited to, loss of time, inconvenience, loss of use, lost profits or transportation fees or charges to or from any facility.
- Any malfunction resulting from misuse, negligence, alteration, accident or lack of operational knowledge, lack of normal or required maintenance or adjustments, exposure to corrosive agents, fire, severe environmental conditions or acts of God.
- Items which are manufactured by a party other than Rosenbauer and which are separately warranted by that party.

EXCLUSIONS OF DAMAGES BOTH INCIDENTAL AND CONSEQUENTIAL.

At no time shall Rosenbauer be held liable for any incidental, consequential, indirect, special and/or punitive damages whatsoever, whether coming from breach of contract, warranty, tort or equity. Such items shall include the chassis or other items sold by Rosenbauer, or their operation or their failure to operate, or defects herein, or any undertakings, acts or omissions related to, regardless whether Rosenbauer's knowledge of the possibility of any such damage.

Without limitation of the generality of the preceding statements, Rosenbauer categorically disclaims any and all liability for property and personal injury, damages, penalties for lost revenue and/or profit, loss of chassis or products and associated pieces of equipment, the expense of substituting chassis and/or products, or the out of service expenses, resulting from damages and/or delays, that creates down time expenses and/or create economic losses, or any third party claims for damages.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability or make any alteration to this warranty in connection with the sale of our apparatus unless expressly given in writing by Rosenbauer.

NOTE: Surety bond, if required, will cover standard one year warranty period only and will not cover any extended warranties allowed by seller or other component manufacturers.

Waterous Seven-Year Limited Warranty

WATEROUS warrants, to the original Buyer only, that products manufactured by WATEROUS will be free from defects in material and workmanship under normal use and service for a period of Seven (7) years from the date the product is first placed in service, or Seven and one-half (7-1/2) years from the date of shipment by WATEROUS, whichever period shall be the first to expire; provided the Buyer notifies WATEROUS, in writing, of the defect in said product within the warranty period, and said product is found by WATEROUS to be nonconforming with the aforesaid warranty. When required in writing by WATEROUS, defective products must be promptly returned by Buyer to WATEROUS at WATEROUS' plant at South St. Paul, Minnesota, or at such other place as may be specified by WATEROUS, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail. The aforesaid warranty excludes any responsibility or liability of WATEROUS for:

- (a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;
- (b) defects in products manufactured by others and furnished by WATEROUS hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, WATEROUS will assign to Buyer, if requested by Buyer;
- (c) any product or part, altered, modified, serviced or repaired other than by WATEROUS, without its prior written consent;
- (d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and
- (e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of WATEROUS, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of WATEROUS to:

- (a) the replacement at the agreed point of delivery of any product or part, which upon inspection by WATEROUS or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- (b) the repair of such product or part, or
- (c) the refund or crediting to Buyer of the net sales price of the defective product or part.

BUYER'S REMEDIES CONTAINED HEREIN ARE EXCLUSIVE OF ANY OTHER REMEDY OTHERWISE AVAILABLE TO BUYER.

Waterous Company
125 Hardman Avenue South
South St. Paul, MN 55075 USA
www.waterousco.com



F-2891 (04/15/20)

COPOLYMER POLYPROPYLENE TANKS LIMITED LIFETIME SERVICE WARRANTY



G3 Fire® offers a limited lifetime warranty on all copolymer polypropylene water and foam tanks and guarantees the tank to be free of defects in workmanship and material for the normal service life of the original apparatus in which the tank is installed. All copolymer polypropylene tanks must be installed and operated in accordance with the G3 Fire® installation guidelines and procedures and failure to do so may void the warranty. The warranty extends to the original purchaser only, but may be transferred with prior written approval by G3 Fire®, with the exception that the original apparatus manufacturer may assign the warranty to the first titled owner of the apparatus.

Should a defect in material or workmanship occur under warranty, G3 Fire® will cover the cost of repair and complete the repair in a timely manner after the first written notification to G3 Fire®. G3 Fire® has sole discretion to determine if warranty is void due to improper installed and operation, misuse, modification from its designed use, or abuse. Tanks which have been stored improperly and suffered UV damage will not be covered under warranty. For valid service claims outside of North America, G3 Fire® will compensate for reasonable labor and material necessary for the repair. G3 Fire® is not responsible for any travel costs associated with international repair. Serial numbers must be intact for warranty to have effect.

To ensure the highest rates of quality control, all warranty and repairs shall take place at the G3 Fire® facility, or that of an authorized service center. All service requests must be accompanied by a G3 Fire® Repair Request form. The costs associated with making the tank accessible for repair will be equally prorated for the first 5 years of tank service. During that time G3 Fire® will cover reasonable expenses to make the tank accessible for repair.

Any third party charges must be pre-authorized and approved in writing by G3 Fire® before beginning any service/repairs, and any unauthorized third party alterations, repairs, modifications, or actions may void the warranty.

G3 Fire® has the exclusive rights in determining valid warranty service claims. Under no circumstances will G3 Fire® be accountable for an amount exceeding the original purchase price of the copolymer polypropylene tank at the time of manufacture, for any loss or damage occurring from failure of the product such as loss of contents (water, foam, etc.) or any costs in connection with service repairs of the chassis, sub-frames, body, valves, dumps, hoses, or other components.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN ADDITION, G3 FIRE® SHALL NOT BE LIABLE FOR ANY DIRECT OR INDIRECT LOSS OR DAMAGE ARISING OUT OF BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF G3 FIRE®.

Since some states do not allow limitations on the length of an implied warranty or the exclusion and limitation of incidental or consequential damages, the above limitations may be irrelevant.



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Approval of the Purchase of a Personal Lift

SECTION: New Business

FROM: Nick Haggenmiller, City Administrator

BACKGROUND: In order to access the high vaulted ceiling at Historic City Hall, public works is currently using a 20' step ladder, which makes performing actual physical activities at that height difficult and dangerous. Every staff member within the public works department has expressed fear/reluctance to perform duties with the current equipment at the height necessary.

Options to Consider

Step Ladder

- No cost
- Offers little protection
- Requires two people
- Difficult & heavy to carry ladder up/down steps

Scaffolding

- \$1,000
- Safe
- Requires two people to carry up/downstairs, setup/take down

Personal Lift

- Rent \$200/day | Purchase \$6,200 (mechanical) - \$17,500 (electric)
- Requires sending two staff members to/from rental
- Safe
- One-person use
- Will fit in elevator or be able to be stored in upstairs closet.

Staff is proposing the purchase of a mechanical, personal lift from Grainger Inc. at an estimated cost of \$6,200. Doing so, will provide safe access for public works employees. We anticipate using this lift in HCH at least once monthly for maintenance. The lift would also have utility for washing windows at other city facilities. The electric lift is not proposed due to its cost.

DECISION MAKING METRICS:

FINANCIAL: \$6,200. At the time this was written, a matching grant was submitted to the Department of Labor and Industry. If awarded, the out of pocket expense to the city would be cut in half.

LEGAL: The City's purchasing policy requires council approval for unbudgeted purchases in excess of \$5,000.

STRATEGIC PLAN:

1. Support and Maintain Public Facilities.
2. Attract and retain talented employees.

COUNCIL ACTION REQUESTED: Staff is proposing to purchase a mechanical one person lift at a cost of \$6,200.

ATTACHMENTS:

1. Personal Lift Grainger Spec Sheet

Products Based on Your Search

 BALLYMORE Personnel Lift, Push-Around Drive, Hydraulic Hand Item # 8ADE3 Web Price \$6,360.00 / each	 BALLYMORE Personnel Lift, Push-Around Drive, 12 V DC battery Pow... Item # 9ADJ0 Web Price \$11,400.00 / each	 BALLYMORE Personnel Lift, Push-Around Drive, Battery Power Sourc... Item # 26X077 Web Price \$16,310.00 / each
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Related Categories

Personn Lifts	Personn Lifts,	Access Ladders,
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Product Categories / Material Handling / Access Ladders, Platforms & Scaffolding / Personnel Lifts, Scaffolding and Accessories / Personnel Lifts / Personnel Lift, Push-Around Drive, Manual Winch...



COTTERMAN
Personnel Lift, Push-Around Drive, Manual Winch Power Source, 21 ft Max. Work Height

Item # 4ZY96
UNSPSC # 20102306
Mfr. Model # ML-15W 15 ft. manual winch
Catalog Page # N/A

Cotterman® manual winch elevating platform operates by 1 worker. Rolls easily and fits through a [View More](#) ✓
Country of Origin USA. Country of Origin is subject to change.

Web Price *i*
\$6,230.00 / each
This item requires additional charge
[Chat with an Agent](#)

Qty1

Add to Cart

☒ Shipping

☐ Pickup

⚠ Ships from supplier. Expected to arrive on or before **Wed. Oct 28.**
Ship to **52101** | [Change](#)
[Ship Availability Terms](#)
Shipping Weight **820 lbs**

Add to List

Item	Personnel Lift	Platform Width	29 in
Drive	Push-Around	Max. Platform Height	15 ft
Power Source	Manual Winch	Handrail Height	42 in
Load Capacity	300 lb	Stowed Height	79 in
Closed Height	6 ft 7 in	Casters	Phenolic
Max. Work Height	21 ft	Caster Dia.	8 in
Platform Extension	180 in	Mast	Steel
Outrigger Footprint L	59 in	Standards	ANSI A 92.3-1990
Outrigger Footprint W	63 in	Green Environmental Attribute	Product Contains a Minimum of 30% Post-Consumer Recycled Content
Overall Length	59 in		
Overall Width	29 in		
Platform Depth	25 1/2 in		

Compliance and Restrictions



Green Product - This item has been designated by the manufacturer as an environmentally preferable product (EPP) because this item has one or more environmentally preferable attributes. For additional information, see the Tech Specs tab on the product description page.

Documentation



[Cotterman Maxi Lift Operating Manual](#)



Chat with an Agent



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider Approving General Maintenance Worker Position

SECTION: New Business

FROM: City Administrator Nick Haggemiller

BACKGROUND: During budget work sessions, the concept of creating a new part time staff position, who's primarily responsibility was facility maintenance was presented. The preliminary 2021 Budget includes funding for this position. The intent with the proposed action here is to have council complete the following:

1. Authorize the creation of the position.
2. Review and approve the proposed job description and proposed designation on the city grade/step scale.
3. Direct staff to begin recruitment for the position.

Expanding Services & Changing Organizational Needs

Currently, facility maintenance is tied back to one or two job description requirements in an existing full time public works position. In reality, public works staff in full addresses general facility maintenance items. This has been effective in the past, but public works job duties and expectations have expanded. Likewise, facility maintenance needs and expectations have also expended. In 2018, the City adopted a Facility Maintenance Study. Most of the improvements have been managed through the city administrator.

Additionally, the City contracts for the following facility related items:

- Cleaning
- Carpet cleaning & floor waxing
- Pest Control
- Carpet and paper product stocking
- Many medium or somewhat complex tasks that could be done by someone with a general background in maintenance or handyman type services.

The position would likely reduce, if not eliminate, the tasks currently completed by outside vendors. Doing so, would reduce budget/levy consequences, but it would NOT be budget neutral. As a note, one of the considerations made with this was increasing some or all of these categories to meet growing need. If that was the selected route, it would have been more cost neutral.

Job Description

A job description is included for review. In quick review, the position is expected to conduct inspections and performs janitorial, maintenance and improvements to assure facilities are safe, operational, and have a neat appearance. The primary job functions will be classified as cleaning & sanitation, facilities maintenance, customer service for the general public and fellow city staff members.

Covid-19 Considerations

The City has an adopted Covid19 Response Plan. Within this plan, certain cleaning and sanitization requirements are included. This position would be responsible for related activities. As such, we anticipate expensing 50-75% of their salary through 2020 under the CARES funding allocation received from the State of Minnesota.

Pay & Compensation

One of the goals of hiring in 2020 will be to establish a regular regiment and scope of duties to have a better handling of budget and schedule consequences in 2021. At this point, we are anticipating to hire an individual who is able to work 20+/- hours per week with flexible work hours. We anticipate to place this employee on the Grade Step Scale of Grade 1, Step 1 which has a 2021 hiring range of \$15.21 - \$20.37 per hour.

DECISION MAKING METRICS:

FINANCIAL: This is an unbudgeted position for 2020. In regards to Covid19, and recognizing that funding is available to offset this position if it is not budgeted or a planned expense – we are able to be reimbursed under our CARES funds for 75%

significant portion of the 2020 wages. Also noting that recruiting, hiring and starting the position will likely take 1-2 months from posting to the first day on the job.

The 2021 Budget includes \$20,000 for wages and additional for supplies, withholdings etc. for the position.

LEGAL: This position would be posted externally for recruiting locally and on various online sources.

STRATEGIC PLAN:

1. Attract and retain top quality employees.
 2. Support, maintain and enhance public facilities.
-

COUNCIL ACTION REQUESTED:

- Authorize the creation of the position.
- Review and approve the proposed job description and proposed designation on the city grade/step scale.
- Direct staff to begin recruitment for the position.

This can be done in one motion.

ATTACHMENTS:

1. General Maintenance Worker Job Description

General Maintenance Worker [PT]

Page 1 of 3



Department	Facilities and Grounds
Reports To	City Administrator
Supervisory Duties	None
FLSA Status	Part Time, None Exempt
Benefits	PERA
Last Updated	October 1, 2020

Position Summary

Conduct inspections and performs janitorial, maintenance and improvements to assure facilities are safe, operational, and have a neat appearance.

Facilities Cleaning & Sanitization

- Completes daily janitorial duties at city hall, historic city hall, library and community center including vacuuming, mopping, dusting.
- Primary employee responsible for disinfecting and sanitization of city facilities.
- Assist with the setup and tear down of Event Center chairs/tables.
- Trash and recycling removal.
- Snow removal from front entry doors during winter months.
- Cleaning of restrooms and stocking of paper goods.
- Carpet cleaning and tile scrubbing.
- Pressure wash exterior buildings/ wash exterior windows.

Facilities Management

- Responsible for creating and implementing Preventative Maintenance Measures for each building.
- Maintains OSHA required documents and standards such as MSDS sheets per site.
- Identifies maintenance and improvement projects. Obtains quotes from vendors and manages the completion of the work.
- Establishes and maintains records of inspections and maintenance projects.
- Will develop a general working knowledge of security, fire alarm and sprinkler systems.
- Facilities Maintenance
- Completes as needed projects – furniture assembly, hanging pictures, basic carpentry, plumbing & painting.
- Completes insect and pest control preventive measures.
- Create and manage citywide key/access control system.

Customer Service

- Follow up on complaints and other matters of public interest related to the City infrastructure, services and maintenance.
- Deals courteously, effectively and tactfully with the public and coworkers.
- Will periodically be called to assist public works staff with various tasks and projects.

While these are the primary focus of the position, we believe strongly in teamwork and employees will be called upon to perform a variety of duties as part of their role with the City.

Position Requirements

Knowledge, Skills and Abilities

- General knowledge of the practices, procedures, equipment and materials used in maintenance, construction and janitorial work.
- General ability to make decisions regarding purchasing supplies and equipment.
- General mechanical ability to operate telephone, computer, calculator and copy machine.
- Ability to exercise resourcefulness in solving new problems related to facility management in order to reduce excessive use of outside contractors and vendors.
- Ability to understand and follow oral and written instructions.
- Ability to communicate effectively, both orally and in writing, and writing reports when necessary.
- General knowledge of the organization and functions of City government.
- Ability to collaborate and implement effective customer service by maintaining a positive and effective relationship with other City departments, contractors, residents and staff via in-person, phone or email on a regular basis.
- Ability to physically move about all areas of City properties to carry out duties.
- Ability to prepare and submit required reports to various agencies and other City staff.

Education

No education required

Requirements

- Valid Minnesota Commercial Class B driver's license.
- Experience cleaning, performing janitorial functions.
- Proven general maintenance experience.
- Basic computer skills including a good knowledge of experience using:
 - E-mail and Microsoft Outlook
 - Web Browsing
 - Adobe PDF Viewer
 - Microsoft Office Products

Physical and Mental Requirements

Positions in this job typically require frequent sitting and standing, occasional walking, bending or stooping and kneeling or squatting, intermittent working with arms above shoulders and climbing. This type of work entails occasional mental effort and stress with 15-40% of the time of a typical workweek spent working with a high level of detail and high deadlines. There is also intermittent exposure to computer keyboards. This position is generally light-duty and occasionally requires the exertion of over 50 pounds of force on occasion and the ability to lift, carry, push, pull and move objects.

The physical demands described here are representative to those that must be met by an employee to successfully perform the essential functions of the job. Reasonable accommodations can be made to enable individuals with disabilities to perform the essential functions.

Working Conditions

Most work is performed in a field environment involving working inside and outside of vehicles, around moving mechanical parts and in high, precarious spaces. This position frequently uses a City vehicle to drive on City streets. Seasonal conditions can include excessive heat or cold temperatures. The use of safety clothing and equipment is required. Conditions can include working with grease/grime and in wet, slippery and dusty conditions.

The work environment characteristics described here are representative to those an employee encounters while performing essential functions of this job. Reasonable accommodations can be made to enable individuals with disabilities to perform the essential functions.

Competencies Common to All City Positions

- Develop and maintain a thorough working knowledge of, and comply with, all departmental and applicable City policies and procedures
 - Demonstrate, by personal example, the spirit of service, excellence and integrity expected from all staff.
 - Develop respectful and cooperative working relationships with co-workers, including willingness to assist newer staff so job responsibilities can be performed with confidence as quickly as possible.
 - Confer regularly with, and keep immediate supervisor informed of, all important matters which pertain to the applicable job functions and responsibilities.
 - Represent the City of Howard Lake in a professional manner to the public, outside contacts and constituencies.
 - Possess an innovative spirit which can identify, develop and support improved methods, procedures or technologies.
-



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Approve Purchase of a Utility Terrain Vehicle

SECTION: New Business

FROM: Meagan Theisen, Assistant City Administrator

BACKGROUND: In order to comply with the ongoing Covid19 Pandemic city staff is required to follow the City's Covid19 Response Plan. Specific to this request, public works is required to sanitize playground equipment and certain public spaces. This is currently being completed using simple hand tank sprayers and is very inefficient. In review of other city's use of CARES funds, it was learned that purchasing additional equipment such as a UTV is a permitted use of funds. The unit would be properly outfitted to assist with related activities.

In addition to use specific to Covid19, the unit would have great utility for park maintenance, watering plants, as well as used by the Police Department during community events. To come up with the preferred model, staff sought input from all city departments and several vendors. After meeting with a representative from Arnolds of Kimball the following is proposed for purchase:

DECISION MAKING METRICS:

FINANCIAL: The City would use CARES funding in the amount of \$21,000

LEGAL: The City is seeking to purchase this under SourceWell. Doing so, negates the need for competing quotes.

STRATEGIC PLAN:

COUNCIL ACTION REQUESTED: Approve the purchase of a utility terrain vehicle as presented.

ATTACHMENTS: UTV Specs & Quote from Arnolds of Kimball

RTV-X1100CWL-H

This would be a fully enclosed cab, with heat and AC. Add-ons: full clip basket, turn signals/hazard lights, review mirror, trailer hitch, and full rack system with long handle tool carrier. I also think we should order two larger watering tanks that would be used for sanitizing and watering. MSRP \$24,459 – with Sourcewell discount it would be between \$19,000 - \$20,000.

Additional add-on options –
Snowblower, sweeper, v-plow or straight plow.



Nursery/Orchard Sales & Support:

Carry up to 2.5x more plants with each run into the nursery for your clients. Load stacks of different sized plants and trays in the extender baskets and along the sides with side baskets. You'll notice a tremendous increase in efficiency with this setup, serving more customers in less time.

Suggested configuration includes:

Cargo Box:

- (1) Half RAC Structure
- (3) Extender Baskets w/ Nets

Driver Side:

- (1) Long Handle Tool Carrier
- (1) Half Clip Basket w/ Net

Passenger Side:

- (1) Full Clip Basket w/ Net
- (1) Cooler/Bucket Cruiser

- Standard Features -

- Custom Options -



V Series

RTV-X1100CWL-H

*** EQUIPMENT IN STANDARD MACHINE ***

DIESEL ENGINE

Model Kubota D1105
3 Cyl. 68.5 cu in
+24.8 Gross Eng HP
75 Amp Alternator

TRANSMISSION

VHT-X
Variable Hydro Transmission
Forward Speeds:
Low 0 - 15 mph
High 0 - 25 mph
Reverse 0 - 17 mph
Limited-slip Front Differential
Rear differential lock

HYDRAULICS

Hydrostatic Power Steering
with manual tilt-feature
Hydraulic Cargo Dump
Hydraulic Oil Cooler

FLUID CAPACITY

Fuel Tank 7.9 gal
Cooling 8.3 qts
Engine Oil 4.3 qts
Transmission Oil 1.8 gal
Brake Fluid 0.4 qts

CARGO BOX

Width 57.7 in
Length 40.5 in
Depth 11.2 in
Load Capacity 1102 lbs
Vol. Capacity 15.2 cu ft

+ Manufacturer Estimate

TIRES AND WHEELS

Heavy Duty Worksite 25 x 10 - 12, 6 ply

KEY FEATURES

Factory Cab w/ A/C, Heater,
Defroster
Fully opening roll-down door
windows
Digital Multi-meter
Speedometer
Pre-wired w/ speakers/antenna for
stereo
Front Independent Adjustable
Suspension
Rear Independent Adjustable
Suspension
Brakes - Front/Rear Wet Disc
Rear Brake Lights / Front
Headlights
2" Hitch Receiver, Front and Rear
Deluxe 60/40 split bench seats
with driver's side seat adjustment
Underseat Storage Compartments
Deluxe Front Guard
(radiator guard, bumper, and lens
guard)

SAFETY EQUIPMENT

SAE J2194 & OSHA 1928 ROPS
Horn
Dash-mounted Parking Brake
Spark Arrestor Muffler
Retractable 2-point Seat Belts

DIMENSIONS

Width 63.2 in
Height 79.5 in
Length 120.3 in
Wheelbase 80.5 in
Tow Capacity 1300 lbs
Ground Clearance 10.4 in
Suspension Travel 8 in
Turning Radius 13.1 ft

Factory Spray-on Bedliner
"L" Models Only

Bright Alloy Wheels (Silver-
painted)
Silver-painted with machined
surface
"S" Models only

RTV-X1100CWL-H Base Price: \$21,549.00

(1) LONG HANDLE TOOL CARRIER 77700-V5018-LONG HANDLE TOOL CARRIER	\$150.00
(1) FULL CLIP BASKET 77700-V5017-FULL CLIP BASKET	\$225.00
(1) FULL RACK SYSTEM / RTV 77700-V5012-FULL RACK SYSTEM / RTV	\$848.00
(1) TURN SIG/HAZARD LGT KIT/RTV-X1100C K7731-99610-TURN SIG/HAZARD LGT KIT/RTV-X1100C	\$289.00
(1) TRAILER HITCH - 2IN RECIEVER - 3/4IN MOUNT 77700-V5200-TRAILER HITCH - 2IN RECIEVER - 3/4IN MOUNT	\$38.00
(2) STANDARD EXTERNAL MIRROR KIT CAB PNF 77700-V5059-STANDARD EXTERNAL MIRROR KIT CAB PNF	\$110.00

Suggested List Price w/ Options: \$23,209.00

Available Manufacturer Rebates:

Cash Customer Instant Rebate Up To: (\$400.00)

Freights & Set-up 1,250 -
\$ 24,459 -

Approt. 19,900.00

*Taxes, shipping & handling, surcharges, assembly charges, destination, freight and/or delivery charges are not included.

This MSRP configuration program is for informational purposes only. In all instances, the user of this program must consult with an authorized Kubota Dealer for complete purchase, warranty and safety information. Special pricing and promotions may be available on certain models. See your Kubota Dealer for details and individuals Dealer product pricing. All prices are shown in U.S. Dollars. Quotes are for products sold in the United States only.



HOWARD LAKE CITY COUNCIL MEETING

OCTOBER 20, 2020

AGENDA ITEM: Consider 2021 Maintenance Agreement with Wright County

SECTION: New Business

FROM: City Administrator, City Administrator

BACKGROUND: The City is entering its second year for a maintenance agreement between the City and Wright County. The maintenance agreement covers snow and salt operations on county roads within city limits.

In 2020, the first year of the agreement, Howard Lake was responsible for snow on County Road 6 and County Road 7. The notable change for 2021 is removing CSAH 7. CSAH 7 is a much longer stretch of road and is susceptible to considerable drifting. Howard Lake staff expensed a considerable amount of time and materials on this stretch alone. The rate is set and is not dependent on specific weather events. This year with newer staff and limited resources, we believe it is in the City's best interest to not include this section.

DECISION MAKING METRICS:

FINANCIAL: \$5,442 in revenue from Wright County

LEGAL: This is a legal maintenance agreement that must be acknowledged by council.

STRATEGIC PLAN: Deliver High Quality Public Services

COUNCIL ACTION REQUESTED: Approve Maintenance Agreement for 2021 as presented.

ATTACHMENTS:

1. City of Howard Lake/Wright County Maintenance Agreement

MAINTENANCE AGREEMENT – 2021

THIS AGREEMENT made and entered into by and between the City of Howard Lake hereinafter referred to as the "City" and the County of Wright hereinafter referred to as the "County".

WHEREAS, Chapter 162, Minnesota Statutes, permits the County to designate certain roads and streets within the City as County State Aid Highways, and

WHEREAS, the City has concurred in the designation of the County State Aid Highway within its limits as identified in County Board's resolutions of August 28, October 8, November 5, December 3, December 27, 1957 and January 7, 1958, and

WHEREAS, it is deemed to be the best interest of all parties that the duties and responsibilities of both the City and the County as to maintenance on said County State Aid Highways to be clearly defined,

NOW THEREFORE, IT IS AGREED with regard to said County State Aid Highway maintenance:
That the City will be responsible for routine maintenance of the following highways:

MAINT.

PLAN	ROAD	SEGMENT	MILES	COST/MI*	TOTAL COST
C	CSAH 6N	TH12 to Codgers	0.50	\$4,612.31	\$2,306.15
C	CSAH 6S	TH12 to Cemetery	0.68	\$4,612.31	\$3,136.37
		ESTIMATED TOTAL =	1.18		\$5,442.52

That routine maintenance shall consist of the following: (Maintenance Plan)

C. Snow and Ice Control

*Based on the average annual cost of years 2017, 2018, and 2019

That when the City deems it desirable to remove snow by hauling, it shall do so at its own expense. Snow and ice removal on sidewalks and other boulevard related maintenance outside the curb or street area is governed by City Ordinance.

That the County will be responsible for all other maintenance.

That in December of 2021, the City shall receive payment from the County for their work. This amount shall be based on the average annual cost per mile for the years 2018, 2019, and 2020 for routine maintenance on Municipal County State Aid Highways. The average annual cost per mile will reflect only those costs associated with the areas of routine maintenance for which the city is responsible.

ADOPTED:

ATTEST:

_____, 20____

City Clerk

Mayor

CERTIFICATION

I hereby certify that the above is a true and correct copy of a resolution duly passed, adopted and approved by the City Council of said City on _____, 20____.

APPROVED AND ACCEPTED:
COUNTY OF WRIGHT

City Clerk

Name of City

Chairman of the Board

Date

ATTEST:

County Coordinator

Date